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UNITED STATES DEPARTMENT OF AGRICULTURE



INVENTORY No. 127



Washington, D. C.

Issued March 1941

PLANT MATERIAL INTRODUCED BY THE DIVISION OF PLANT EXPLORATION AND INTRODUCTION, BUREAU OF PLANT INDUSTRY, APRIL 1 TO JUNE 30, 1936 (NOS. 114314-116965)

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INTRODUCTORY STATEMENT

This inventory, No. 127, records the plant material (Nos. 114314-116965) received by the Division of Plant Exploration and Introduction during the period from April 1 to June 30, 1936.

More than 2,600 introductions mark this second quarter of 1936; a large percentage of these are the result of the activities of three agricultural explorers who were in the field at that time.

Walter Koelz was traveling in India from Ceylon north through the Bombay Presidency and the United Provinces to the Punjab and the North West Frontier Province, with the definite object of collecting material for the fruit- and vegetable-breeding projects of the Bureau. He visited many villages and small towns, collecting from native markets and local garden plots seeds of all available types of fruits and vegetables, with notes of their special characteristics and local uses.

In Mexico, W. A. Archer covered the territory from the southeastern State of Tabasco through Veracruz and northward to the State of Durango, collecting seeds of local strains of tobacco. At the same time Raymond Stadelman was carrying on a similar type of exploration in Peru and Ecuador, where he collected not only common tobacco but also closely related species of *Nicotiana* which have since proved of unusual interest to our plant breeders working for disease-resistant tobacco strains.

Through the courtesy of the Royal Botanic Gardens at Kew, England, 111 lots of cowpeas (*Vigna sinensis*, Nos. 115666 to 115776), representing native strains from Ceylon, Mauritius, and Africa, were received. These have proved of interest chiefly from the genetical standpoint. The African forms came originally from the Anglo-

Egyptian Sudan, Kenya Colony, Egypt, Rhodesia, Nigeria, and other parts of tropical Africa.

Two large shipments from central and southwestern China, presented by the Botanic Garden Division of the Sun Yat-Sen Tomb and Memorial Park Commission, Nanking (Nos. 114700-114823; 116115-116157), were recorded during this period. These represent seeds of 166 species, largely trees and shrubs, many of which are being introduced for the first time. In climatic requirements these range from subtropical to north temperate, coming as they do from widely differing regions, and for that reason will be tested in various parts of the South and the Southwest.

Rice breeders will benefit from the introduction of 121 lots of seeds (*Oryza sativa*, Nos. 116332-116452) presented by the Rice Research Station, Department of Agriculture, Yanco, New South Wales. These represent recent promising crosses made at that station.

The Department is indebted to the Union of Soviet Socialist Republics for several shipments of plant material, among which three deserve special mention. The Zhitomir Plant Breeding Station presented roots of 22 special types of hops (*Humulus lupulus*, Nos. 115107-115128); these are to be tested in the Northwestern States for disease-resistance and for comparison with commonly grown types. The Director of the Botanic Garden at Samara sent in seeds of 149 Russian varieties of vegetables, including beets, peppers, cucumbers, watermelons, tomatoes, beans, and peas (Nos. 115141-115289). These have been developed in regions of low winter temperatures, so will be particularly useful to our government plant breeders. The third shipment, presented by the Institute of Plant Industry at Leningrad (Nos. 115320-115416), consists of local selections of forage plants, including both leguminous plants and grasses, obtained originally from all parts of the Soviet Union.

The botanical determinations of seeds introduced have been made and the nomenclature determined by Paul Russell, who has had general supervision of this inventory.

B. Y. MORRISON,
Principal Horticulturist, in Charge.

DIVISION OF PLANT EXPLORATION AND INTRODUCTION,
Washington, D. C., March 7, 1940.

INVENTORY¹

NOTE.—This inventory is a historical record of plant material introduced for Department and other specialists. It is not to be considered as a list of plant material for distribution.

114314 to 114316. NICOTIANA TABACUM L. Solanaceae.

Common tobacco.

From Nicaragua. Seeds presented by Cia Tabacalera de Nicaragua, Managua. Received April 17, 1936.

114314. Seeds from plants that were originally grown from imported Virginia seed.

114315. *Jalapa* variety.

114316. *Ohiloagre*. A native strain.

114317 to 114320. MALUS SYLVESTRIS Mill. Malaceae. Apple.

From Denmark. Scions presented by Neils Eshbjerg, Director, Statens forsogstation Blangsted, Odense. Received April 10, 1936.

114317. *Ildrod Pigeon*.

114318. *Ingers*.

114319. *Marieable Era Njorthholm*.

114320. *Speilsby Pigeon*.

114321 and 114322. NICOTIANA TABACUM L. Solanaceae.

Common tobacco.

From El Salvador. Seeds presented by C. S. Whitehead, Cigarrera Morazan, through William P. Cochran, Jr., American vice consul, San Salvador. Received April 9, 1936.

114321. Type *Ilopango*; from Ilopango.

114322. Type *Ilopango*; from Tonacatepeque.

114323 to 114325. ALLIUM spp. Liliaceae.

From Ceylon. Bulbs collected by Walter Koelz, Bureau of Plant Industry. Received April 6, 1936.

114323. ALLIUM CEPA L. Onion.

No. 93. From the Kandy market, February 25, 1936. A red onion up to 2½ inches in diameter. Said to have come from Bombay.

114324. ALLIUM ASCALONICUM L. Shallot.

No. 33. *Rata-lunu*. A small onion collected in the Colombo market, February 20, 1936.

114325. ALLIUM SATIVUM L. Garlic.

No. 15. *Sudu lunu; vella vengayam*. From the Colombo market, February 20, 1936; said to have been imported from India. Commonly used in native cookery.

114326 to 114331.

From Sweden. Seeds presented by the Director, Botanic Garden, Upsala. Received April 2, 1936.

114326. ALLIUM HYMENORRHIZUM Ledeb. Liliaceae.

A moisture-loving species with linear leaves and purplish-violet flowers. Native to the Soviet Union.

For previous introduction see 78982.

114327 to 114329. DELPHINIUM spp. Ranunculaceae. Larkspur.

¹ It should be understood that the names of varieties of fruits, vegetables, cereals, and other plants used in this inventory are those under which the material was received when introduced by the Division of Plant Exploration and Introduction, and further, that the printing of such names here does not constitute their official publication and adoption in this country. As the different varieties are studied, their entrance into the American trade forecast, and the use of varietal names for them in American literature becomes necessary, the foreign varietal designations appearing in this inventory will be subject to change with a view to bringing the forms of the names into harmony with recognized horticultural nomenclature.

It is a well-known fact that botanical descriptions, both technical and economic, seldom mention the seeds at all and rarely describe them in such a way as to make possible identification from the seeds alone. Many of the unusual plants listed in these inventories are appearing in this country for the first time, and there are no seed samples or herbarium specimens with ripe seeds with which the new arrivals may be compared. The only identification possible is to see that the sample received resembles seeds of other species of the same genus or of related genera. The responsibility for the identifications, therefore, must necessarily often rest with the person sending the material. If there is any question regarding the correctness of the identification of any plant received from this Division, herbarium specimens of leaves and flowers should be sent in so that definite identification can be made.

114327 to 114331—Continued.

114327. *DELPHINIUM CHEILANTHUM* Fisch.

A hardy perennial delphinium with simple or branching stems up to 3 feet high and racemes of dark-blue or sometimes yellowish flowers. Native to Siberia.

114328. *DELPHINIUM OCHROLEUCUM* Stev.

A perennial delphinium about 2 feet high, with simple dense elongate racemes of yellow flowers. Native to the Caucasus region.

114329. *DELPHINIUM TRISTE* Fisch.

A perennial delphinium with simple or branching stems up to 2 feet high, three- to five-parted leaves, and lax racemes of large dark-purple flowers. Native to southern Siberia.

114330. *SOLANUM DULCAMARA* L. Solanaceae. Bitter nightshade.

For previous introduction see 114182.

114331. *SOLANUM NIGRUM* L. Solanaceae. Black nightshade.

114332 to 114337.

From Mexico. Bulbs and seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 3, 1936.

114332. *HIPPEASTRUM* sp. Amaryllidaceae.

No. 3777. Collected March 18, 1936, at Huimanguillo, Tabasco. A bulbous plant with double, salmon-colored flowers.

114333 to 114337. *NICOTIANA TABACUM* L. Solanaceae. Common tobacco.

114333. No. 3788. From Oluta, Veracruz.

114334. No. 3789. From San Juan Evangelista, Veracruz.

114335. No. 3781. From Ocuapan, near Huimanguillo, Tabasco.

114336. No. 3786. From Oluta, Veracruz.

114337. No. 3787. From Oluta, Veracruz.

114338 and 114339.

From Japan. Seeds presented by the Japan Seed & Plant Co., Tokyo. Received April 1, 1936.

114338. *ALLIUM CEPA* L. Liliaceae. Onion.

Marutane mammoth. A bunching onion which does not form a bulb but a pencil-like shaft like a leek. The flavor is mild, and the silver-white stem, about 2 feet long, remains tender a long time.

114339. *CUCUMIS SATIVUS* L. Cucurbitaceae. Cucumber.

Manchuko wonder. A new drought-resistant cucumber. The fruits are long, straight, and of dark-green color, measuring about 7 inches in length and over an inch in diameter. The flesh is snow white, very crisp, and has a delicious flavor.

114340 to 114343.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 3, 1936.

114340 to 114343—Continued.

114340. *ARACHIS HYPOGAEA* L. Fabaceae. Peanut.

No. 3776. From Villahermosa, Tabasco, March 17, 1936. Cultivated peanuts.

114341. *CARICA CAULIFLORA* Jacq. Papayaceae.

No. 3780. Collected near Huimanguillo, Tabasco, March 19, 1936. A wild papaya; fruits from 1½ to 2½ inches in diameter.

For previous introduction see 102878.

114342. *CARICA PAPAYA* L. Papayaceae. Papaya.

No. 3779. Collected near Huimanguillo, Tabasco, March 19, 1936. A cultivated papaya with fruits 8 by 12 inches; often larger.

114343. *PASSIFLORA LIGULARIS* JUSS. Passifloraceae. Sweet granadilla.

No. 3784. *Jujo*. Collected at Cardenas, Tabasco, March 20, 1936.

114344 and 114345.

From China. Scions presented by R. C. Ching, Lushan Arboretum and Botanic Garden, Kuling, Kiangsi. Received April 7, 1936.

114344. *CASTANEA HENRYI* (Skan.) Rehd. and Wils. Fagaceae. Chestnut.

For previous introduction see 113662.

114345. *CASTANEA SEGUINII* Dode. Fagaceae.

Small wild chestnuts.

For previous introduction see 112753.

114346 to 114348. *VITIS VINIFERA* L. Vitaceae. European grape.

From Germany. Scions presented by Dr. H. Moog, Lehr- und Forschungsanstalt für Wein-Obst- und Gartenbau, Gartenbau, Gelsenheim am Rhein. Received April 6, 1936.

114346. *Blauer Spätburgunder*.

114347. *Gewürz Traminer*.

114348. *Müller-Thurgau*.

114349. *BAMBUSA BEECHYANA* MUNRO. Poaceae. Bamboo.

From California. Culms presented by William Hertrich, Huntington Botanic Garden, San Marino. Received November 13, 1935. Numbered in April 1936.

This bamboo, identified by Dr. F. A. McClure, of Lingnan University, Canton, China, is stated by him to be the commonest and most valuable edible bamboo of southern China. It grows to a height of about 35 feet, but the culms are of greater diameter in the lower part, in proportion to the height, than are those of most other bamboos. Culms up to 3½ inches in diameter near the base have been produced at San Marino.

114350 to 114369. *NICOTIANA TABACUM* L. Solanaceae. Common tobacco.

From Ecuador. Seeds collected by Raymond Stademan, Bureau of Plant Industry. Received April 3, 1936.

114350. No. 75. *Esmeraldas*. From Guayas Province, March 12, 1936.

114350 to 114369—Continued.

Nos. 114351 to 114354 were collected at the Hacienda Angel Maria, Guayas Province, March 12, 1936.

114351. No. 76.

114352. No. 77.

114353. No. 78. *Esmeraldas negro*.

114354. No. 79.

Nos. 114355 to 114357 were collected at Puca, Guayas Province, March 12, 1936.

114355. No. 80.

114356. No. 81.

114357. No. 82.

114358. No. 83. Collected at Jordan, Guayas Province, March 13, 1936.

Nos. 114359 to 114361 were collected at Santa Lucia, Guayas Province, March 13, 1936.

114359. No. 84. *Barbasco*.

114360. No. 85. *Barbasco*.

114361. No. 86. *Criollo*.

Nos. 114362 to 114369 were collected in Guayas Province, March 12-14, 1936.

114362. No. 87. From Fortuna.

114363. No. 88. From Bermejo.

114364. No. 89. From La Isla.

114365. No. 90. *Esmeraldas blanco*. From San Juan.

114366. No. 91. *Brasil*. From San Vincente.

114367. No. 92. *Esmeraldas blanco*. From the Hacienda Antonieta.

114368. No. 93. *Ropon*. From San Antonia.

114369. No. 94. Collected along the Daule River.

114370 to 114372. NICOTIANA TABACUM L. Solanaceae.

Common tobacco.

From Costa Rica and Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 3, 1936.

114370. No. 3756. From San Ramon, Costa Rica, March 4, 1936. *Iztepeque*. A variety with pink and white flowers.

114371. No. 3758. From San Ramon, Costa Rica. A bitter variety with white flowers, March 4, 1936.

114372. No. 3783. *Criollo*. From Cardenas, Tabasco, Mexico, March 20, 1936.

114373 to 114376. SACCHARUM. Poaceae. Sugarcane.

From India. Cuttings presented by the Sugarcane Expert, Sugarcane Experiment Station, Lawley Road via Coimbatore. Received April 10, 1936.

114373. Co. 421. 114375. Co. 356.

114374. Co. 313. 114376. Co. 270.

114377 and 114378.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 8, 1936.

114377 and 114378—Continued.

114377. ARACHIS HYPOGAEA L. Fabaceae. Peanut.

No. 3791. March 27, 1936. A cultivated peanut from San Andres, Tuxtla, Veracruz.

114378. CUCUMIS MELO L. Cucurbitaceae. Muskmelon.

No. 3785. March 24, 1936. A cultivated muskmelon from Minatitlán, Veracruz.

114379 to 114381. ARACHIS HYPOGAEA L. Fabaceae. Peanut.

From Morocco. Seeds presented by the Station Centrale de Recherches Agronomique, Rabat; through W. A. Carver, Agricultural Experiment Station, Gainesville, Fla. Received April 6, 1936.

114379. From China.

114380. From Bombay.

114381. From Sakamia.

114382 to 114390.

From Rumania. Seeds presented by the Director, Botanic Garden, Cluj. Received April 4, 1936.

114382 to 114387. DELPHINIUM spp. Ranunculaceae. Larkspur.

114382. DELPHINIUM CAUCASICUM C. A. Mey.

A perennial delphinium with stems about a foot high, five-parted leaves, and blue flowers in few-flowered subterminal clusters. Native to the Caucasus region.

114383. DELPHINIUM CORYMBOSUM Regel.

A hardy bushy perennial up to 13 inches high, with the upper leaves palmate, three- to five-lobed, and clusters of about six pale-violet flowers. Native to Turkistan.

114384. DELPHINIUM ELATUM L. Bee larkspur.

A European species 2 to 6 feet high, bearing blue flowers with dark-violet petals.

For previous introduction see 114160.

114385. DELPHINIUM SPECIOSUM Bleb.

A hardy handsome perennial delphinium, with simple stems up to 2 feet high and many showy dark-blue flowers in elongated panicles. Native to the Caucasus region.

114386. DELPHINIUM SULPHUREUM Boiss. and Haussk.

114387. DELPHINIUM TATSIIENENSIS Franch.

A larkspur from western China, with slender stems and hairy leaves divided into three to five sections. The deep-blue flowers are in a large loose raceme.

For previous introduction see 114164.

114388. HYACINTHUS LUCOPHAEUS (C. Koch) Stev. Liliaceae.

A hyacinth about a foot high, usually with 2 linear dark-green fleshy leaves and many small crowded bell-shaped, blue or whitish flowers in a raceme. Native to the southern part of the Soviet Union.

114382 to 114390—Continued.

114389. *LALLEMANTIA IBERICA* (Bieb.) Fisch. and Mey. Menthaceae.

114390. *TULIPA HUNGARICA* Borb. Liliaceae.

A tulip from southern Europe and the Transcaucasus region, with a slender stem up to 18 inches high, three to four broad leaves, and a bright-yellow or greenish-yellow bell shaped flower. Related to *Tulipa bilhetiana*.

114391 to 114398. *NICOTIANA TABACUM* L. Solanaceae.

Common tobacco.

From Ecuador. Seeds collected by Raymond Stadelman, Bureau of Plant Industry. Received April 15, 1936.

Nos. 114391 to 114397 were collected at San Mateo, Province of Esmeraldas, March 23, 1936.

114391. No. 95. 114395. No. 99.

114392. No. 96. 114396. No. 100.

114393. No. 97. 114397. No. 101.

114394. No. 98.

114398. No. 102. From Esmeraldas, Province of Esmeraldas, March 23, 1936.

114399 to 114406. *NICOTIANA TABACUM* L. Solanaceae.

Common tobacco.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 17, 1936.

114399. No. 3782. Verde. From Ocuapan, near Huimanguillo, Tabasco, March 16, 1936. Cultivated tobacco.

Nos. 114400 to 114403 were collected at San Andres Tuxtla, Veracruz, March 28 and 29, 1936.

114400. No. 3792. *Tabasqueño prieto*, an impure strain.

114401. No. 3793. *Tabasqueño prieto*, a pure strain.

114402. No. 3794. *Tabasqueño colorado*.

114403. No. 3795. *Tabasqueño colorado*.

114404. No. 3799. From Tesechoacan, Veracruz, April 1, 1936. Mixed sample, probably *Blanco*, *Colorado*, and *Habanero*.

114405. No. 3800. From Tesechoacan, Veracruz, April 1, 1936. A mixed sample, probably *Blanco* and *Colorado*.

114406. No. 3802. From Curazao, Veracruz, April 1, 1936.

114407 to 114412. *CITRUS* spp. Rutaceae.

From Spain. Budwood presented by Manuel Herrero, Estación Naranjera de Levante, Burjasot, Valencia. Received April 17, 1936.

114407 to 114411. *CITRUS SINENSIS* (L.) Osbeck. Orange.

114407. *Cadenera fina*.

114408. *Berna*, a typical Spanish variety.

114409. *Torregrosa*, a very acid fruit.

114410. *Sangre doble fina*.

114407 to 114412—Continued.

114411. *Washington-Sangre*, a selection made at the station.

114412. *CITRUS NOBILIS DELICIOSA* (Ten.) Swingle. Mandarin orange.

Mandarina comun.

114413 to 114415.

From England. Plants presented by Sir Arthur W. Hill, Director, Royal Botanic Gardens, Kew. Received April 13, 1936.

114413. *THAMNOCALAMUS FALCONERI* Hook. f. Poaceae. Bamboo.

A bamboo with a cylindrical culm, which, when young, has 8 to 12 branches at each node; these branches vary in length, are exceedingly slender, often purplish in color, and have four to seven leaves gathered near the tips. The leaves are lanceolate, $1\frac{1}{2}$ to 4 inches long by three-sixteenths to about three-eighths of an inch wide. The slenderness of the branches gives this bamboo a distinctive beauty.

For previous introduction see 92507.

114414. *ARUNDINARIA RACEMOSA* Munro. Poaceae. Bamboo.

An erect bamboo up to 15 feet high, with linear-lanceolate leaves 4 to 7 inches long. Native to the Himalayan region at altitudes of 6,000 to 12,000 feet.

114415. *THAMNOCALAMUS SPATHIFLORUS* (Trin.) Munro. Bamboo.

A rare bamboo, said to grow in clumps, with slender culms up to 35 feet high and with branches tufted at the nodes; the narrow leaves, up to 5 inches long, are gathered two to four at the ends of the branchlets.

114416 to 114459.

From Ceylon. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received April 4, 1936.

114416. *ABELMOSCHUS ESCULENTUS* (L.) Moench. Malvaceae. Okra.

No. 45. *Bandakka*. From the market at Kandy, February 23, 1936.

114417. *AMARANTHUS GANGETICUS* L. Amaranthaceae. Ganges amaranth.

No. 65. *Loka-tampala*. From the market at Kandy, February 23, 1936. Leaves said to be eaten as greens.

114418. *ANETHUM GRAVEOLENS* L. Apiaceae. Dill.

No. 44. *Sadukufa*. From the market at Colombo, February 21, 1936.

114419. *ANNONA MURICATA* L. Annonaceae. Soursop.

No. 8. *Aitha*. From the Colombo market, February 20, 1936. The green reniform bristly fruit weighed 4 pounds. The colorless juice suggests the flavor of pineapple and mint.

114420. *ARACHIS HYPOGAEA* L. Fabaceae. Peanut.

No. 20. *Rata-Kaju*, *Nela-Kadala*. From the market at Colombo, February 20, 1936.

114421. *AEGLE MARMELOS* (L.) Correa. Rutaceae. Bel.

No. 23. *Bael*. From the market at Colombo, February 20, 1936. A hard-

114416 to 114459—Continued.

shelled, yellow-green, globular fruit 4 inches in diameter; used medicinally.

114422. *BENINCASA HISPIDA* (Thunb.) Cogn. Cucurbitaceae. Waxgourd.

No. 74. *Alupubul, ash-pumpkin*. From the market at Kandy, February 23, 1936. A beautiful green fruit with an ashly bloom, weight up to 15 pounds.

For previous introduction see 110896.

114423. *BRASSICA JUNCEA* (L.) Coss. Brassicaceae. Chinese mustard.

No. 28. *Abut, Kadu*. From the market at Colombo, February 20, 1936. Seeds used as a condiment.

114424. *CAPSICUM FRUTESCENS* L. Solanaceae. Bush redpepper.

No. 62. *Miris*. From the market at Kandy, February 23, 1936.

114425. *CARUM COPTICUM* (L.) Benth. and Hook. Apiaceae.

No. 43. *Asumodigan*. From the market at Colombo, February 21, 1936. Used in medicine.

114426. *CICER ARIETINUM* L. Fabaceae. Chickpea.

No. 18. *Konda, Kasdala*. From the market at Colombo, February 20, 1936. A winter crop in India in dry season. The pods are eaten raw and the ripe fruit is roasted or boiled.

114427. *CITRULLUS VULGARIS* Schrad. Cucurbitaceae. Watermelon.

No. 64. *Pent-puhul*. From the market at Kandy, February 23, 1936.

114428 to 114437. *CITRUS* spp. Rutaceae.

114428. *CITRUS AURANTIFOLIA* (Christm.) Swingle. Lime.

No. 11. *Deht*. From the market at Colombo, February 20, 1936. Lemon-shaped, yellow fruits up to 3 inches long, pleasantly acid, very juicy, of superior quality.

114429. *CITRUS AURANTIFOLIA* (Christm.) Swingle. Lime.

No. 41. *Dehi*. From the market at Colombo, February 20, 1936. Yellow fruits, 1½ inches long; very pleasantly acid.

114430. *CITRUS AURANTIUM* L. Seville orange.

No. 80. *Dodang*. From the market at Kandy, February 23, 1936. A sub-acid fruit of fair quality with green rind; rare.

114431. *CITRUS AURANTIUM* L. Seville orange.

No. 79. *Ambulduslan, Pulidodan*. From the market at Kandy, February 23, 1936. A fruit 2½ inches in diameter, with thick green bitter skin and acid juice, used in chutneys and marmalade.

114432. *CITRUS GRANDIS* (L.) Osbeck. Grapefruit.

No. 81. *Jambulato*. From the market at Kandy, February 23, 1936. A yellow fruit, 4½ inches in diameter, with rather bitter, subacid juice and thick peel.

114416 to 114459—Continued.

114433. *CITRUS LIMONIA* Osbeck. Lemon.

No. 78. *Natran*. From the market at Kandy, February 23, 1936. Fruits yellow, elongate, 4 inches long, pleasantly acid.

114434 to 114437. *CITRUS NOBILIS* Lour. King orange.

114434. No. 9. *Jambu-naran*. From the market at Colombo, February 20, 1936. A golden yellow fruit 3 inches in diameter, with clinging peel and rough-skinned divisions and pleasant subacid juice.

114435. No. 76. *Hinarang*. From the market at Kandy, February 23, 1936. A flattened orange about 1½ inches across, with rather acid juice and fragrant peel.

114436. No. 10. *Nas-naran*. From the market at Colombo, February 20, 1936. A small fruit with highly aromatic peel, very acid juice, and about 30 percent by volume of seeds.

114437. No. 77. *Nas-naran*. From the market at Kandy, February 23, 1936. A small, very acid orange, much like No. 10 (P. I. 114436).

114438. *CUCUMIS MELO* L. Cucurbitaceae. Muskmelon.

No. 53. *Pitti kekri*. From the market at Kandy, February 23, 1936. Rare.

114439. *CUCUMIS SATIVUS* L. Cucurbitaceae. Cucumber.

No. 60. *Pepinga*. From the market at Kandy, February 23, 1936. Fruits up to 18 inches long. Said to be eaten both raw and cooked; usually sold ripe.

114440. *CUMINUM CYMINUM* L. Apiaceae. Cumin.

No. 21. *Suduru, Stragum*. From the market at Colombo, February 20, 1936.

114441. *CYPHOMANDRA BETACEA* (Cav.) Sendt. Solanaceae. Tree-tomato.

No. 2. *Takkali*. From the market at Colombo, February 20, 1936. Fruit egg-shaped, thick-skinned, and yellow.

For previous introduction see 99778.

114442. *DIOSPYROS DISCOLOR* Willd. Diospyraceae. Mabelo.

No. 73. *Velvet apple*. From the market at Kandy, February 23, 1936. Fruit velvety, orange pink, very attractive in appearance; flavor insipid.

114443. *DOLICHOS BIFLORUS* L. Fabaceae. Twinflower dolichos.

No. 19. *Kollu*. From the market at Colombo, February 20, 1936.

For previous introduction see 101580.

114444 and 114445. *DOLICHOS LABELAB* L. Fabaceae. Hyacinth-bean.

From the market at Kandy, February 23 and 24, 1936.

114444. No. 82. *Awara*.

114445. No. 48. *Nila awara*.

114446. *FERONIA LIMONIA* (L.) Swingle. Rutaceae. Wood-apple.

No. 12. *Dumbul*. From the market at Colombo, February 20, 1936. Fruit size

114416 to 114459—Continued.

of a baseball, ashy outside, with brownish, mealy, pleasantly acid flesh. Said to be used in medicine and for preserves.

For previous introduction see 95594.

114447. *GUILANDINA BONDUC* L. **Caesalpinaceae.**

No. 25. *Kumbura, Kallichikota.* From the market at Colombo, February 20, 1936. Used medicinally.

For previous introduction see 42521.

114448. *MOMORDICA CHARANTIA* L. **Cucurbitaceae. Balsam-pear.**

No. 56. *Karawila.* From the market at Kandy, February 23, 1936. Green fruits 8 inches long. The flesh is bitter, but is eaten cooked.

For previous introduction see 110186.

114449. *MORINGA OLEIFERA* Lam. **Moringaceae. Horseradish-tree.**

No. 59. *Murunga.* From the market at Kandy, February 23, 1936. Best used as a condiment; leaves said to be excellent fried; fruit used as a vegetable.

For previous introduction see 52293.

114450. *PASSIFLORA QUALRANGULARIS* L. **Passifloraceae. Giant granadilla.**

No. 42. *Rata-puhul.* From the market at Colombo, February 21, 1936. A green subglobose fruit, 4 inches long, filled with purplish, sweet-acid pulp. Used as a vegetable, also made into jam.

For previous introduction see 108313.

114451. *PHASEOLUS AUREUS* Roxb. **Fabaceae. Mung bean.**

No. 17. *Muneta, Plas-pias.* From the market at Colombo, February 20, 1936. Used as food, also as forage.

114452. *PHASEOLUS VULGARIS* L. **Fabaceae. Common bean.**

No. 46. *Boncietta, Meribonci.* From the market at Kandy, February 23, 1936. Used as string beans, also eaten as dry beans.

114453. *PHYLLANTHUS EMBLICA* L. **Euphorbiaceae. Nelli.**

No. 31. *Kyu-ru.* From the market at Colombo, February 20, 1936. A very acid fruit; said to be used in medicine, for tanning, preserves, etc.

For previous introduction see 99749.

114454. *PISUM SATIVUM* L. **Fabaceae. Pea.**

No. 30. *Bola, Kadala.* From the market at Colombo, February 20, 1936.

114455. *SPONDIAS CYTHEREA* Sonner. **Anacardiaceae. Vi-apple.**

No. 14. *Ambarella, Hogplum.* From the market at Colombo, February 20, 1936. Acid, yellow fruits 3 inches long; used for preserves and chutneys.

For previous introduction see 35884.

114456. *TERMINALIA CHEBULA* Retz. **Combretaceae.**

No. 24. *Aralu, Kaduka.* From the market at Colombo, February 20, 1936. A medicinal plant.

114457. *TRIGONELLA FOENUM-GRÆCUM* L. **Fabaceae. Fenugreek.**

114416 to 114459—Continued.

No. 27. *Uluarst, Uluhal.* From the market at Colombo, February 29, 1936. Used as a condiment.

For previous introduction see 85398.

114458. *VIGNA SINENSIS* (Torner) Savi. **Fabaceae. Cowpea.**

No. 16. *Mekaral.* From the market at Colombo, February 20, 1936. Used as green beans; also the dry seeds are cooked and eaten as food.

114459. *ZEA MAYS* L. **Poaceae. Corn.**

No. 66. *Iringu.* From the market at Kandy, February 23, 1936.

114460. *IRIS* sp. **Iridaceae.**

From Germany. Plants purchased from Karl Foerster, Bornim-Potsdam-Sanssouci. Received April 18, 1936.

Variety *Patula Kola.*

114461. *SOLANUM TUBEROSUM* L. **Solanaceae. Potato.**

From Germany. Tubers imported by the Bailer Manufacturing Co., Atchison, Kans. Received April 20, 1936.

Variety *Parnissia.*

114462. *IRIS* sp. **Iridaceae.**

From China. Seeds collected by Dr. J. F. Rock, Yunnanfu, Yunnan Province. Received April 10, 1936.

Collected in alpine meadows west of the Yangtze on Mount Labako, northwest of Likang, at 10,000 feet altitude.

114463. *DELPHINIUM PRZEWALSKII* Huth. **Ranunculaceae.**

From Austria. Seeds presented by the Director, Botanic Gardens, Graz. Received April 17, 1936.

A Mongolian larkspur about 8 feet high, with three- to five-parted leaves, the divisions deeply lacinate, and sky-blue flowers that appear from July to September. Closely related to *Delphinium henryi*, which, however, blooms in March.

For previous introduction see 105179.

114464 to 114476.

From Sweden. Seeds presented by the Director, Botanic Garden, Stockholm. Received April 4, 1936.

114464. *BETA PALELLARIS* Moq. **Chenopodiaceae.**

For previous introduction see 112522.

114465. *LACTUCA AUGUSTANA* All. **Cichoriaceae. Lettuce.**

An annual lettuce allied to *Lactuca scariola*. Native to Europe.

114466. *LACTUCA VIROSA* L. **Cichoriaceae. Lettuce.**

A biennial with a long fusiform root and a tall leafy stem often branched at the base. Native to rocky places in central and southern Europe.

For previous introduction see 91532.

114467 to 114471. *RHEUM* spp. **Polygonaceae. Rhubarb.**

114464 to 114476—Continued.

114467. RHEUM FRANZENBACHII Muentzer.

A rapidly growing species, native to temperate Asia. It is a striking ornamental, suitable for borders and possibly useful for breeding purposes.

For previous introduction see 114171.

114468. RHEUM PALMATUM TANGUTICUM Maxim.

A tall perennial, up to 6 feet high, with large rounded cordate leaves. Native to northeastern Asia.

For previous introduction see 110759.

114469. RHEUM PUMILUM Maxim.

A wild rhubarb with a leafy stem about a foot high and somewhat fleshy leaves. It is related to *Rheum delavayi*. Native to northwestern China.

114470. RHEUM RHAPONTICUM L.
Common rhubarb.

114471. RHEUM WITROCKII Lundstroem.

114472 to 114476. SOLANUM spp. Solanaceae.

114472. SOLANUM GILO Raddi.

For previous introduction see 93095.

114473. SOLANUM HETEROPOXUM Dun.

For previous introduction see 110814.

114474. SOLANUM MACROCARPON L.
Nightshade.

A low shrub native to Peru, with ovate-sinuate leaves 8 inches long, small blue-purple flowers in cymes 2 inches across, and globose yellow fruits the size of an apple.

For previous introduction see 91549.

114475. SOLANUM sp.

An annual received under the name "Roberti-Eliac," for which a place of publication has not been found.

114476. SOLANUM SISYMBRIFOLIUM Lam.

For previous introduction see 110815.

114477 to 114493.

From England. Seeds presented by Sir Arthur W. Hill, Director, Royal Botanic Gardens, Kew. Received April 8, 1936.

114477. APIUM GRAVEOLENS L. Apiaceae.
Celery.

114478. BETA TRIGYNA Waldst. and Kit. Chenopodiaceae.

For previous introduction see 112561.

114479. BETA VULGARIS L. Chenopodiaceae.
Common beet.

Variety *Maritima*.

114480. BETA VULGARIS L. Chenopodiaceae.
Common beet.

Variety *Saccharifera*.

114481 to 114486. DELPHINIUM spp. Ranunculaceae.

114481. DELPHINIUM CAUCASICUM C. A. Mey.

For previous introduction and description see 114382.

114482. DELPHINIUM DECORUM Fisch. and Mey.

For previous introduction see 104890.

114477 to 114493—Continued.

114483. DELPHINIUM DUHMBERGII Huth.

For previous introduction see 104847.

114484. DELPHINIUM DYCTIOCARPUM Steud.

For previous introduction see 104892.

114485. DELPHINIUM GAXANUM Wilmott.

For previous introduction see 104850.

114486. DELPHINIUM TATSIENENSE Franch.

For previous introduction and description see 114387.

114487 to 114489. LACTUCA spp. Cichoriaceae.
Lettuce.

114487. LACTUCA BOURGABI (Boiss.) Irish and Taylor.

A thick-stemmed bristly leaved herbaceous perennial often 6 feet high, with small lilac-colored flower heads. Native to the Mediterranean region.

114488. LACTUCA PERENNIS L.

A perennial lettuce about 2 feet high with pale-blue flower heads. Native to Europe.

114489. LACTUCA VIROSA L.

A biennial with a long fusiform root and a tall leafy stem often branched at the base. Native to rocky places in central and southern Europe.

For previous introduction see 114466.

114490 to 114492. LYCOPERSICON ESCULENTUM Mill. Solanaceae. Tomato.

114490. Variety *Cerasiforme*.114491. Variety *Pyriforme*.114492. Variety *Racemigerum*.114493. PHASEOLUS COCCINEUS L. Fabaceae.
Scarlet runner bean.

114494. MEDICAGO FALCATA × SATIVA. Fabaceae.

From New Zealand. Seeds presented by W. C. Robinson, Director-General, Department of Agriculture, Wellington. Received April 15, 1936.

Tivacata. A hybrid alfalfa.

114495. RHUS VIMINALIS Ait. Anacardiaceae.
Sumac.

From the Union of South Africa. Seeds presented by the McGregor Museum, Kimberley. Received April 9, 1936.

Karree boom. An evergreen tree up to 30 feet high, native to South Africa in semi-arid regions at over 4,000 feet altitude. Sheep and goats browse on the foliage.

For previous introduction see 95087.

114496 and 114497.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 17, 1936.

114496. TEPHROSIA sp. Fabaceae.

No. 3803. From Azueta, Veracruz, April 1, 1936.

114497. DATURA STRAMONIUM L. Solanaceae.

No. 3778. From Huimanguillo, Tabasco, March 18, 1936. A form with purple double flowers.

114498 to 114524.

From Sweden. Seeds presented by Dr. C. Skottsberg, Director, Botanic Garden, Göteborg. Received April 11, 1936.

114498. *CROCUS ETRUSCUS* Parl. Iridaceae.114499. *CROCUS BIFLORUS* PESTALOZZAE (Boiss.) Maw. Iridaceae.

A variety with small whitish flowers.

114500 to 114507. *DELPHINIUM* spp. Ranunculaceae.114500. *DELPHINIUM BULLEYANUM* Forrest.

An alpine larkspur 2 to 4 feet high, native to Yunnan, China, between 11,000 and 12,000 feet altitude. The long-stemmed leaves are palmately divided and incised serrate, and the deep rich-blue flowers are in a paniculate raceme.

For previous introduction see 104939.

114501. *DELPHINIUM NUTTALLII* Gray.114502. *DELPHINIUM GREYERI* Greene.

A perennial delphinium up to about 2 feet high, with rather large, deep-blue flowers in a compact raceme. Native to the high plains of Wyoming and Colorado.

For previous introduction see 114162.

114503. *DELPHINIUM MAACKIANUM* Regel.

An erect perennial delphinium up to 3 feet high, with three- to five-parted leaves and many blue flowers in racemes. It is closely related to *Delphinium elatum*.

For previous introduction see 114163.

114504. *DELPHINIUM PUNICEUM* Pall.

A perennial delphinium with erect branching stems over 2 feet high and deep-violet flowers in dense elongated racemes. Native to the Soviet Union.

114505. *DELPHINIUM PYLZOWI* Maxim.

A larkspur, native to China, with a leafy stem, five-parted leaves, and attractive flowers with violet sepals and blackish petals.

For previous introduction see 81886.

114506. *DELPHINIUM TATSINENSIS* Franch.

For previous introduction and description see 114486.

114507. *DELPHINIUM YUNNANENSIS* Franch.

A perennial alpine with a simple or branched stem and pale-green, finely pubescent leaves that are divided at the middle into five obovate incised segments. The calyx is intensely blue while the petals are bluish violet, the entire flower being four-fifths of an inch long.

For previous introduction see 104369.

114508 to 114510. *IRIS* spp. Iridaceae.114508. *IRIS HUMILIS* Bieb.

An iris of the Apogon section with about 12 tufted linear leaves up to a foot long and bright-lilac flowers, the limbs about 2 inches long. Native to southern Europe and the Caucasus region.

114509. *IRIS LANVIGATA* Fisch.

For previous introduction see 28448.

114498 to 114524—Continued.

114510. *IRIS MELLITA* Janka.

For previous introduction see 53708.

114511. *LACTUCA MURALIS* (L.) Fresen. Cichoriaceae.

An erect annual or biennial about 2 feet high with toothed or lobed triangular or narrow leaves and small yellow flower heads on terminal panicles. Native to Europe and western Asia.

114512. *LACTUCA SERRIOLA* L. Cichoriaceae. Prickly lettuce.

For previous introduction see 104854.

114513. *PASSIFLORA GRACILIS* Jacq. Passifloraceae. Crinkled passionflower.

For previous introduction see 110807.

114514 to 114518. *RHODODENDRON* spp. Ericaceae.114514. *RHODODENDRON FERRUGINEUM* L. Rock rhododendron.

A dwarf evergreen shrub up to 4 feet high and wide, with narrow oblong leaves over an inch long and pink or carmine flowers about three-fourths of an inch across in small terminal clusters. Native to the mountains of central Europe.

114515. *RHODODENDRON IMPEDITUM* Balf. and Smith.

A low shrub native to the Likiang Snow Range, Yunnan, China, between 15,000 and 16,000 feet altitude. The short branchlets are covered with small black scales, and the broadly elliptic leaves, less than an inch long, are densely scaly on both surfaces. The openly funnel-shaped flowers, mauve or light purple blue, are solitary or in twos.

For previous introduction see 98467.

114516. *RHODODENDRON LUTEUM* Sweet. Pontic azalea.

For previous introduction see 78875.

114517. *RHODODENDRON PONTICUM* L. Pontic rhododendron.

For previous introduction see 66476.

114518. *RHODODENDRON SMIRNOWII* Trautv. Smirnow rhododendron.

For previous introduction see 101962.

114519 to 114522. *SOLANUM* spp. Solanaceae.114519. *SOLANUM AVICULARE* Forst. f. Nightshade.

A bushy shrub 6 to 8 feet high, with lacinate leaves 10 inches long, small cymes of large dark-purple flowers, and yellowish fruits an inch in diameter, which are used for making marmalade.

For previous introduction see 114179.

114520. *SOLANUM GRACILE* Otto.

For previous introduction see 110813.

114521. *SOLANUM HETEROPOXUM* Dun.

For previous introduction see 114473.

114522. *SOLANUM HUMILE* Lam.

A dwarf shrubby perennial with ovate leaves and violet-colored flowers; known only in cultivation.

For previous introduction see 110661.

114498 to 114524—Continued.

114523. *LYCOPERSICON ESCULENTUM* Mill. Solanaceae. Tomato.

Variety *Cerasiforme*.

114524. *VITIS DAVIDII* (Carr.) Foëx. Vitaceae. Brier grape.

A very late grape with bunches which weigh over 2 pounds.

For previous introduction see 78817.

114525 and 114526.

From Pennsylvania. Seeds presented by Edgar T. Wherry, University of Pennsylvania, Philadelphia. Received April 23, 1936.

114525. *ELLIOTTHIA RACEMOSA* Muhl. Ericaceae.

114526. *TRIPETALEIA PANICULATA* Sleb. and Zucc. Ericaceae.

A shrub 4 to 6 feet high, with red-brown branchlets, native to Japan. The rhomboid-ovate leaves are 1 to 3 inches long, and the small pink-tinged white flowers, with three distinct petals, are in terminal panicles 2 to 4 inches long.

For previous introduction see 102309.

114527 to 114545.

From England. Seeds presented by the Director, University Botanic Garden, Cambridge. Received April 9, 1936.

114527 to 114529. *BETA* spp. Chenopodiaceae. Beet.

114527. *BETA VULGARIS* L. Common beet.

114528. *BETA PATELLARIS* Moq.

For previous introduction see 114464.

114529. *BETA TRIGYNA* Waldst. and Kit.

114530 to 114533. *DELPHINIUM* spp. Ranunculaceae. Larkspur.

114530. *DELPHINIUM CAUCASICUM* C. A. Mey.

For previous introduction and description see 114382.

114531. *DELPHINIUM GAYANUM* Wilmott.

For previous introduction see 114485.

114532. *DELPHINIUM REQUIENI* DC.

A biennial larkspur about 4 feet high, with three- or five-parted leaves and sky-blue flowers in lax racemes. Native to the islands of Corsica and Majorca.

For previous introduction see 105090.

114533. *DELPHINIUM YUNNANENSIS* Franch.

For previous introduction and description see 114507.

114534 to 114536. *LACTUCA* spp. Cichoriaceae. Lettuce.

114534. *LACTUCA PERENNIS* L.

For previous introduction and description see 114488.

114535. *LACTUCA SERBIOLA* L.

Frickly lettuce.

For previous introduction see 114512.

114536. *LACTUCA VIROSA* L.

For previous introduction and description see 114489.

114527 to 114545—Continued.

114537 to 114539. *PASSIFLORA* spp. Passifloraceae.

114537. *PASSIFLORA BRYONIOIDES* H. B. K.

A herbaceous vine with broad deeply three-lobed leaves 2 to 3 inches long and solitary white flowers about 1 inch across. Native to Mexico.

114538. *PASSIFLORA GRACILIS* Jacq.

For previous introduction see 114513.

114539. *PASSIFLORA QUADRANGULARIS* L. Giant granadilla.

114540 and 114541. *PISUM SATIVUM* L. Fabaceae. Pea.

114542 to 114545. *SOLANUM* spp. Solanaceae.

114542. *SOLANUM ATROPURPUREUM* Schrank.

For previous introduction see 110608.

114543. *SOLANUM CAPSICASTRUM* Link. False Jerusalem-cherry.

For previous introduction see 114180.

114544. *SOLANUM MELONGENA* L. Eggplant.

114545. *SOLANUM NODIFLORUM* Jacq.

A woody perennial about 2 feet high, with ovate entire leaves 2 to 5 inches long and very small white flowers in small umbels, followed by small black globose berries. Native to tropical America.

For previous introduction see 104864.

114546 to 114548.

From Peru. Seeds presented by Dr. Cesar Vargas, University of Cuzco, Cuzco. Received April 13, 1936.

114546. *FRAGARIA CHILOENSIS* (L.) Duchesne. Rosaceae. Chiloe strawberry.

Fruits collected at Urubamba, February 29, 1936, at 3,100 meters altitude.

114547. *RUBUS ROSEUS* Poir. Rosaceae.

Native names *cfari-efari*, *zarsamora*. A large-fruited wild red raspberry collected at Ollantayambo, February 29, 1936, at 3,100 meters altitude.

For previous introduction see 53218.

114548. *RUBUS URTICAEFOLIUS* Poir. Rosaceae.

Native name *cfari-efari*. Collected at Ollantayambo, February 29, 1936, at 3,000 meters altitude. A Peruvian species with strong-growing canes 12 feet high and rather thorny. Flowers and fruits in all stages occur on the same plant. The ripe fruits are slightly acid, but with no characteristic flavor.

For previous introduction see 101221.

114549 to 114586. *NICOTIANA TABACUM* L. Solanaceae.

Common tobacco.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 23, 1936.

114549. No. 3595. Cultivated tobacco collected October 27, 1935, at Papaloapam, Veracruz.

114549 to 114586—Continued.

Nos. 114550 to 114555 were collected October 28, 1935, at Tuxtepec, Oaxaca. Cultivated tobacco.

114550. No. 3596. *Huimangillo*.
 114551. No. 3597. *Habanero prieto*.
 114552. No. 3598.
 114553. No. 3599. *Habanero*.
 114554. No. 3600. *Habanero*.
 114555. No. 3601. *Mulato*.

Nos. 114556 to 114558 were collected March 31, 1936, at La Esperanza, Veracruz. Cultivated tobacco.

114556. No. 3796. *Punta de Lanza*.
 114557. No. 3797. *Punta de Lanza*.
 114558. No. 3798. *Colorado* (?)
 114559. No. 3801. April 1, 1936. Volunteer tobacco from Tesechoacan, Veracruz.
 114560. No. 3804. April 1, 1936. Volunteer tobacco from Cosamaloapam, Veracruz.
 114561. No. 3805. *Tlapacoyan*. Cultivated tobacco from Tlapacoyan, Veracruz, April 9, 1936.

Nos. 114562 to 114566 were collected in the State of Nuevo Leon, November 4, 1935. Cultivated tobacco.

114562. No. 3806. From Casillas.
 114563. No. 3807. From El Barrial.
 114564. No. 3808. From Rayones.
 114565. No. 3809. From Rayones.
 114566. No. 3810. From Las Troncas.
 114567. No. 3812. Cultivated tobacco from Tlalchapa, Guerrero, October 3, 1935.

Nos. 114568 to 114574 were collected at Encarnacion, Jalisco, December 10, 1935. Cultivated tobacco.

114568. No. 3813. *Lengua de Vaca*.
 114569. No. 3814. *Hoja China*.
 114570. No. 3815. *Villalobos*.
 114571. No. 3816. *Villalobos*.
 114572. No. 3817. *Mano de oso*.
 114573. No. 3818. A mixed sample.
 114574. No. 3819. *Mostrenco*.

Nos. 114575 to 114586 were collected December 10, 1935, at Leon, Guanajuato. Cultivated tobacco.

114575. No. 3820. *Turco*.
 114576. No. 3821. *Lengua de vaca*.
 114577. No. 3822. *Virginia, Ohino, and Negro* (mixed).
 114578. No. 3823. *Ohino negro*.
 114579. No. 3824. *Burley*.
 114580. No. 3825. *Lenguillo grande*.
 114581. No. 3826. *Oja de Vástago*.
 114582. No. 3827. *Negro combinado*.
 114583. No. 3828. *Negro and Lenguillo grande* (mixed).
 114584. No. 3829. *Maguey*.

114549 to 114586—Continued.

114585. No. 3830. *Lenguillo chica*.
 114586. No. 3831. *Castaño*.

114587 to 114603.

From the Union of Soviet Socialist Republics. Seeds presented by the Director, Laboratory of Botany, Timirjazew Academic, Moscow. Received April 15, 1936.

114587. *DELPHINIUM CASHMERIANUM* Royle. Ranunculaceae.
Cashmere larkspur.

A Himalayan plant 10 to 18 inches high, with deep azure-blue flowers 2 inches long.

For previous introduction see 53142.

114588. *DELPHINIUM FLEXUOSUM* Bieb. Ranunculaceae. **Larkspur.**

A hardy herbaceous perennial with violet flowers. Native to the mountains of Armenia.

For previous introduction see 108786.

114589. *DELPHINIUM* sp. Ranunculaceae. **Larkspur.**

Received under the name "rossicum," which does not appear to have been properly published.

- 114590 and 114591. *PISUM SATIVUM* L. Fabaceae. **Pea.**

114592. *PISUM* sp. Fabaceae.

Nos. 114593 to 114602. *RHEUM* spp. Polygonaceae. **Rhubarb.**

114593. *RHEUM COLLINIANUM* Baill.

A Chinese rhubarb, possibly of the *Rheum hybridum* series, with incised lobed leaves and red flowers.

114594. *RHEUM AUSTRALE* Don.

For previous introduction see 114170.

114595. *RHEUM FRANZENBACHII* Muentzer.

For previous introduction and description see 114467.

114596. *RHEUM OFFICINALE* Baill.

For previous introduction see 114174.

114597. *RHEUM PALMATUM* L. **Sorrel rhubarb.**

A leafy perennial about 5 feet high, with subcylindrical stems and broad roundish leaves deeply palmately lobed. Native to northwestern Asia.

For previous introduction see 110758.

114598. *RHEUM PALMATUM TANGUTICUM* Maxim.

A variety with leaves more elongated and not so deeply lobed.

114599. *RHEUM BHAPONICUM* L. **Common rhubarb.**

114600. *RHEUM TATARICUM* L. f.

114601. *RHEUM UNDULATUM* L.

114602. *RHEUM WITTRICKII* Lundstroem.

114603. *SOLANUM DULCAMARA* L. Solanaceae. **Bitter nightshade.**

For previous introduction see 114330.

114604 to 114631.

From Czechoslovakia. Seeds presented by Prof. Adolf Kutin, Director, Botanic Garden, Tabor. Received April 13, 1936.

114604 to 114631—Continued.

114604. *APIUM GRAVEOLENS* L. Apiaceae.
Celery.
114605. *BETA* sp. Chenopodiaceae.
Received under the name "scutellaris,"
for which a place of publication has not
been found.
114606. *BETA TRIGYNA* Waldst. and Kit.
Chenopodiaceae.
For previous introduction see 114529.
114607. *DELPHINIUM DISCOLOR* Fisch. Ranunculaceae.
- 114608 and 114609. *LACTUCA SATIVA* L. Cichoriaceae.
Garden lettuce.
114610. *LALLEMANTIA IBERICA* (Bieb.) Fisch. and Mey. Menthaceae.
For previous introduction see 114389.
114611. *LYCOPERSICON ESCULENTUM* Mill. Solanaceae.
Tomato.
- 114612 to 114622. *PHASEOLUS* spp. Fabaceae.
114612. *PHASEOLUS COCCINEUS* L.
Scarlet runner bean.
114613. *PHASEOLUS LUNATUS* L.
Lima bean.
- 114614 to 114622. *PHASEOLUS VULGARIS* L.
Common bean.
114614. Oval, gray-brown beans.
114615. Long brown beans.
114616. Oval-rounded tan beans mottled with darker brown.
114617. Tan-colored beans.
114618. White beans.
114619. Deep-red, oval-rounded beans.
114620. Black, oval beans.
114621. Long black beans.
114622. Long, tan-colored, mottled beans.
- 114623 to 114627. *PISUM SATIVUM* L. Fabaceae.
Pea.
114623. Variety *Hibernum*.
114624. Grayish black, mottled.
114625. Cream colored.
114626. Brownish.
114627. Pale greenish yellow.
114628. *RHEUM RHAPONTICUM* L. Polygonaceae.
Common rhubarb.
114629. *RHEUM UNDULATUM* L. Polygonaceae.
Rhubarb.
For previous introduction see 114601.
114630. *SOLANUM DULCAMARA* L. Solanaceae.
Bitter nightshade.
114631. *SOLANUM NIGRUM* L. Solanaceae.
Black nightshade.
114632. *ACER HERSII* Rehder. Aceraceae.
Maple.

From England. Plants purchased from Hillier & Sons, West Hill Nurseries, Winchester. Received April 24, 1936.

A medium-sized tree native to northern China, with cordate, broadly-ovate, long-pointed, three-lobed leaves and samaras about an inch long.

For previous introduction see 76049.

114633 to 114636. *NICOTIANA TABACUM* L. Solanaceae.

Common tobacco.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received April 24, 1936.

114633. No. 3832. From Cordoba, Veracruz, November 18, 1935.

Nos. 114634 to 114636 were collected in December 1935 at Almolonga, Veracruz.

114634. No. 3833. *Granja*.

114635. No. 3834. *Longa*.

114636. No. 3835. *San Andres*.

114637 to 114639. *TRITICUM AESTIVUM* L. Poaceae.
Common wheat.

From Australia. Seeds presented by H. Wenholz, Director of Plant Breeding, Department of Agriculture, Sydney, New South Wales. Received April 1, 1936.

114637. *Free Gallipoli*.

114638. *Glucub*.

114639. *White Lammas*.

114640 to 114656.

From Scotland. Seeds presented by Sir William Wright Smith, Regius Keeper, Royal Botanic Gardens, Edinburgh. Received April 17, 1936.

- 114640 to 114644. *DELPHINIUM* spp. Ranunculaceae.
Larkspur.

114640. *DELPHINIUM DELAVAYI* Franch.

For previous introduction see 104940.

114641. *DELPHINIUM DICTYOCARPUM* Steud.

A perennial delphinium with flexuose stems, five-parted leaves, and blue flowers in simple racemes. Native to the Caucasus region.

114642. *DELPHINIUM DUEMBERGII* Huth.

For previous introduction see 114483.

114643. *DELPHINIUM MAACKIANUM* Regel.

For previous introduction see 114503.

114644. *DELPHINIUM PRZEWALSKII* Huth.

For previous introduction see 104894.

- 114645 to 114648. *LACTUCA* spp. Cichoriaceae.
Lettuce.

114645. *LACTUCA BOURGAEI* (Boiss.) Irish and Taylor.

For previous introduction and description see 114487.

114646. *LACTUCA BRACTEATA* Hook. f. and Thoms.

A tall perennial lettuce with loose panicles of large blue flower heads. Native to the Himalayan region.

114647. *LACTUCA HASTATA* DC.

A robust perennial up to 7 feet high, with pinnatifid leaves about a foot long and small heads of blue, purple, or dark-red flowers. Native to the Himalayas between 4,000 and 12,000 feet altitude.

For previous introduction see 111058.

114640 to 114656—Continued.

114648. *LACTUCA PLUMIERI* (L.) Gren. and Godr.

A perennial lettuce with stout stems about 6 feet high and purple flower heads in terminal cymes. Native to Europe.

114649. *MUSCARI* sp. Liliaceae.
Grape-hyacinth.

Received under the name "argaei," which has not been properly published. This is a grape-hyacinth similar to *Muscari neglectum*.

114650. *MUSCARI AUCHERI* (Boiss.) Baker. Liliaceae.
Grape-hyacinth.

A grape-hyacinth with usually three fleshy linear leaves 2 or 3 inches long and a slender purple scape about as long, with 6 to 10 blue flowers in a dense spikelike cluster. Native to Asia Minor.

114651. *PISUM JOMARDI* Schrank. Fabaceae.
Pea.

A hardy white-flowered annual pea about 3 feet high, native to Egypt.

For previous introduction see 110605.

114652 to 114656. *RHEUM* spp. Polygonaceae.
Rhubarb.

114652. *RHEUM ACUMINATUM* Hook. f. and Thoms.

114653. *RHEUM OFFICINALE* Baill.

For previous introduction see 114596.

114654. *RHEUM PALMATUM* L.
Sorrel rhubarb.

For previous introduction and description see 114597.

114655. *RHEUM RHAPONTICUM* L.
Common rhubarb.

For previous introduction see 114628.

114656. *SOLANUM DULCAMARA* L. Solanaceae.
Bitter nightshade.

For previous introduction see 114630.

114657. *ZEPHYRANTHES* sp. Amaryllidaceae.

From Mexico. Bulbs collected by W. A. Archer, Bureau of Plant Industry. Received April 21, 1936.

No. 3790. *San Juan*. Collected March 26, 1936, at San Juan Evangelisto, Veracruz.

114658 to 114661.

From the Netherlands. Seeds presented by the Director, Botanic Garden, Groningen. Received April 18, 1936.

114658. *DELPHINIUM PYZOWI* Maxim. Ranunculaceae.
Larkspur.

For previous introduction and description see 114505.

114659. *DELPHINIUM REQUIENI* DC. Ranunculaceae.
Larkspur.

For previous introduction and description see 114532.

114660. *KITAIBELIA VITIFOLIA* Willd. Malvaceae.

For previous introduction see 98360.

114661. *OPHIOSTRYX VOLUBILIS* (Harv.) Skeels. Liliaceae.

An asparaguslike perennial with a globose bulb 4 to 6 inches in diameter, small

114658 to 114661—Continued.

erect linear leaves, and a slender twining stem 6 to 8 feet long. The numerous small greenish flowers are less than one-half inch long. Native to southern Africa.

For previous introduction see 31853.

114662 to 114664. *SOLANUM TUBerosum* L. Solanaceae.
Potato.

From Ireland. Tubers presented by Dr. W. J. Megraw, through C. F. Clark, Bureau of Plant Industry. Received April 25, 1936.

114662. *Arran Victory*; blight-resistant.

114663. *Ballydoon*; strong grower, second early.

114664. *Kerr's Pink*; of good quality.

114665. *CARICA PAPAYA* L. Papayaceae.
Papaya.

From Hawaii. Seeds presented by W. T. Pope, Agricultural Experiment Station, Honolulu. Received April 23, 1936.

Solo variety.

114666. *ENTEROLOBIUM CYCLOCARPUM* (Jacq.) Griseb. Mimosaceae.
Guanacaste tree.

From Costa Rica. Seeds presented by the Chief, Botanical Section of the National Agricultural Bureau, San José, through Harold M. Collins, American consul, San José. Received April 22, 1936.

A large spreading tree, native to the Pacific region of tropical America, where it grows at an altitude of about 2,700 feet. The trunk sometimes becomes 3 feet in diameter. The compound leaves close during the night, and the pods are twisted into a sort of spiral. The leaves and pods are much relished by cattle.

For previous introduction see 93577.

114667 to 114669.

From Cuba. Seeds presented by Robert M. Grey, Superintendent, Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos, through F. G. Walsingham. Received April 22, 1936.

114667. *FORTUNELLA HINDSII* (Champ.) Swingle. Rutaceae.
Hong Kong kumquat.

From the Botanical and Forestry Department, Hong Kong. A small shrub with oval-elliptic, leathery leaves and small attractive orange fruits. Native to southeastern China.

For previous introduction see 109765.

114668. *TECOMARIA CAPENSIS* (Thunb.) Spach. Bignoniaceae.

From the Botanical and Forestry Department, Kenya, British East Africa. Native to South Africa. A rambling shrub about 6 feet high, with pinnate leaves 2 to 5 inches long and cymes of many orange-red to scarlet flowers about 2 inches long.

114669. (Undetermined.)

From Sun Yat-Sen University, Canton, China. Received as "*Zenia insignis*," for which a place of publication has not been found.

114670. PRUNUS SIBIRICA L. Amygdalaceae.
Siberian apricot.

From South Dakota. Plants presented by Prof. N. E. Hansen, South Dakota State College, Brookings. Received April 28, 1936.

A wild Siberian apricot collected from a stony hillside at Shivando, in the vicinity of Shilka at the north fork of the Siberian Railway.

For previous introduction see 114074.

114671 to 114678.

From England. Plants purchased from Hillier & Sons, Winchester. Received April 29, 1936.

114671 to 114675. RHODODENDRON spp.
Ericaceae.

114671. RHODODENDRON ALBRECHTII
Maxim.

A shrub 3 to 5 feet high, with obovate to oblanceolate membranous leaves which turn yellow in autumn. The rotate-campanulate, red-purple flowers, 2 inches across, in clusters of three to five, appear with the leaves. It is somewhat like *Rhododendron schlippenbachii* and is native to Japan.

For previous introduction see 86749.

114672. RHODODENDRON INDICUM (L.)
Sweet.

Variety *Kokimshita*. A compact low-growing bush with narrow leaves and single scarlet flowers of the general type of the plant known in trade as *Azalea macrantha*. It is very free flowering.

For previous introduction see 78379.

114673. RHODODENDRON INDICUM (L.)
Sweet.

Variety *Misomogiri*.

114674. RHODODENDRON QUINQUEFOLIUM
Biss. and Moore. Cork azalea.

A deciduous shrub or small tree up to 25 feet high, with broad-elliptic to ovate leaves about 2 inches long and white, green-spotted campanulate flowers about 2 inches across. Native to Japan.

114675. RHODODENDRON TSCHONOSKII
Maxim.

A forest shrub, native to Japan, with flaky bark, elliptic leaves one-third of an inch long, and heads of one to four small white flowers.

For previous introduction see 85859.

114676. X BERBERIS LOLOGENSIS Sandwith.
Berberidaceae.

An evergreen shrub related to *Berberis darwinii*. It is described as a hybrid of *Berberis darwinii* and *Berberis linearifolia*.

114677. CHIONANTHUS RETUSA Lindl.
Oleaceae. Chinese fringetree.

A handsome deciduous hardy ornamental tree bearing, during the spring, a multitude of small delicately fragrant flowers, with very narrow petals, followed in the fall by masses of blue berries resembling wild grapes. This species is considered by some to be superior to the Virginia fringetree (*Chionanthus virginica*), because of the whiteness and fragrance of its flowers and its more graceful habits.

For previous introduction see 103120.

114671 to 114678—Continued.

114678. JASMINUM HUMILE L. Oleaceae.
Italian jasmine.

A shrub, usually evergreen, with upright and spreading branches, angled branchlets, and compound leaves made up of three to seven ovate, entire leaflets about 1 inch long. The bright-yellow flowers, nearly 1 inch long, are borne in several-flowered open cymes. It is native to southern Asia.

For previous introduction see 93904.

114679. ACHRAS ZAPOTA L. Sapotaceae.
Sapodilla.

From Costa Rica. Seeds presented by Alan Kelso, Chief of the Propagation Service, Department of Agriculture, Puntarenas. Received April 27, 1936.

White-fleshed giant.

For previous introduction see 112602.

114680 to 114687. MYRCIARIA CAULIFLORA
(Mart.) Berg. Myrtaceae.
Jaboticaba.

From Brazil. Plants purchased from Dierberger & Companhia, São Paulo. Received May 2, 1936.

For previous introduction see 113511.

114680. Blanco.

114681. Bronzcadea.

114682. Grumichama.

114683. Sabará seedlings. The leading commercial variety in Brazil. The fruit is medium sized, very thin-skinned, with small seeds and sweet flesh of good quality. The seedlings are said to resemble closely the parent.

114684. Murta.

114685. Paulista. A late-ripening variety, with large rather thick-skinned fruits containing large seeds; not equal in quality to Sabará.

114686. Pintada.

114687. Rajada.

114688 and 114689. NICOTIANA TABACUM L. Solanaceae.

Common tobacco.

From Honduras. Seeds obtained through the American consulate, Tegucigalpa, at the request of W. A. Archer, Bureau of Plant Industry. Received May 2, 1936.

114688. Chapeollo. From Dani.

114689. A mixed sample from Santa Rosa de Copan.

114690. MYRCIARIA CAULIFLORA (Mart.)
Berg. Myrtaceae. Jaboticaba.

From Brazil. Seeds presented by B. H. Hunnicutt, Lavras, Minas Geraes. Received December 29, 1921. Numbered in April 1936.

For previous introduction see 114687.

114691 to 114693. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Germany. Tubers presented by Dr. Karl Stapp, Biologische Reichsanstalt für Land und Forstwirtschaft, Berlin-Dahlem. Received May 5, 1936.

114691 to 114693—Continued.

114691. *Daber*.114692. *Eierkartoffel*.114693. *Flava*.114694. *OCHROMA CONCOLOR* Rowlee.
Bombacaceae.

From Mexico. Seeds collected by Prof. M. Martínez at Villa Azueta, Veracruz, and presented by W. R. Maxon, United States National Museum. Received May 2, 1936.

A large tropical tree, native to Guatemala; one of several species which yield the balsam wood of commerce.

114695 to 114697.

From Scotland. Seeds presented by the Scottish Society for Research in Plant Breeding, Craigs House, Corstorphine, Edinburgh. Received May 29, 1936.

114695. *AGROSTIS PALUSTRIS* Huds. Poaceae. Creeping bent.114696. *PHLEUM PRATENSE* L. Poaceae. Timothy.

CB. 191. Pasture timothy.

114697. *PHLEUM PRATENSE* L. Poaceae. Timothy.

CB. 213. Rust resistant hay timothy.

114698 and 114699. *SOLANUM TUBEROSUM* L. Solanaceae. Potato.

From Uruguay. Tubers presented by the Instituto Fitotecnico y Semillero Nacional "La Estanzuela," Montevideo. Received April 25, 1936.

114698. *Americana blanca*.114699. *Yaguau*.

114700 to 114823.

From China. Seeds collected in Szechwan Province and presented by the Botanic Garden Division of the Sun Yat-Sen Tomb and Memorial Park Commission, Nanking. Received April 3, 1936.

114700. *ACANTHOPANAX SEPTEMLOBUM* (Thunb.) Koidz. Araliaceae.

No. 1. A tree up to 90 feet high, native to eastern Asia. The large round leaves, sometimes a foot across, are divided into seven triangular serrate lobes, and the small white flowers, in large terminal clusters, are followed by small black fruits.

For previous introduction see 99141.

114701. *ACANTHOPANAX SETCHUENENSIS* Harms. Araliaceae.

No. 2. A bush up to 10 feet high, native to western China, where it is found in thickets at altitudes of 5,500 to 6,500 feet. The small white flowers, in short-peduncled umbels, are followed by black fruits. This species is closely related to *Acanthopanax leucorrhizus*.

For previous introduction see 52928.

114702. *ACANTHOPANAX TRIFOLIATUM* (L.) C. Schneid. Araliaceae.

No. 3. A hardy spiny climbing shrub, native to western China, with slender-stemmed, three-parted, light-green leaves and compound terminal umbels of small greenish flowers followed by small black berries.

For previous introduction see 110285.

114700 to 114823—Continued.

114703. *ACER BRIANTHUM* Schwerin. Aceraceae. Maple.

No. 5. A small tree, related to *Acer caudatum*, with five-lobed to seven-lobed leaves about 4 inches long and broad. Native to central and western China.

114704. *ACER LAEVIGATUM* Wall. Aceraceae. Maple.

No. 6. A large tree, up to 40 feet high and 3 to 4 feet in diameter, native to the temperate slopes of the Himalayas and western China. The oblong-ovate, nearly entire leaves are 2 to 6 inches long, reticulate beneath, and the paniced cymes of small white flowers appear with the leaves.

For previous introduction see 99711.

114705. *ACER TETRAMERUM* Pax. Aceraceae. Maple.

No. 7. A tree native to central and western China, 20 to 30 feet high, with oval or oblong, coarsely toothed leaves from 2 to 3½ inches long. The keys are slender stalked, and the nutlets are thick and strongly veined.

For previous introduction see 43813.

114706. *ACHYRANTHES BIDENTATA* Blume. Amaranthaceae.

No. 8. A slender perennial 4 to 6 feet in height, with broadly elliptic leaves 3 to 10 inches long and slender spikes of small white flowers. Native to eastern Asia.

114707. *ACTINIDIA CALLOSA* Lindl. Dilleniaceae.

No. 9. A climbing shrub, becoming 20 feet or more long, with conspicuous lenticels on the branchlets. The oval to oblong, serrulate, acuminate leaves are 3 to 5 inches long, and the small white flowers, one-half inch across, are followed by ovoid spotted fruits 1 inch long. Native to the Himalayas and southwestern China.

114708. *ACTINIDIA CORIACEA* (Fin. and Gagn.) Dunn. Dilleniaceae.

No. 10. A climbing shrub about 25 feet high, with persistent, coriaceous, lanceolate, finely dentate leaves nearly 6 inches long. These are bronze red, passing into metallic green; in autumn they take on a beautiful reddish color. The fragrant white flowers are followed by small greenish ovoid or elongated fruits. Native to western China.

For previous introduction see 42683.

114709. *ACTINODAPHNE CONFERTIFOLIA* (Hemsl.) Gamble. Lauraceae.

No. 11. An evergreen shrub or tree of medium size, with lanceolate leaves about 4 inches long, clustered at the tops and forks of the branches, and inconspicuous flowers, followed by small black berries. Native to western China.

114710. *ACTINODAPHNE RETICULATA* Meissn. Lauraceae.

No. 12. A small evergreen tree with whorled linear or elliptic lanceolate leaves about 6 inches long and clusters of small greenish flowers. Native to northeastern India.

114711. *ADENOSTEMMA LAVENIA* (L.) Kuntze. Asteraceae.

No. 13.

114700 to 114823—Continued.

114712. *AREBIA LOBATA AUSTRALIS* Diels.
Lardizabalaceae.

No. 14. A glabrous twining monoecious shrub up to 20 feet long with compound leaves, the leaflets ovate to ovate-oblong, and 1 to 3 inches long. The pistillate flowers are maroon and nearly an inch across, whereas the staminate, light-purple flowers are smaller. The edible fleshy pods are about 3 inches long. Native to central and western China.

For previous introduction see 54353.

114713. *AMPELOPSIS DELAVAYANA* Planch.
Vitaceae.

No. 16. A stout vine with the young growth hairy and reddish, and cordate, broadly ovate, more or less three-lobed leaves 2 to 5 inches long. The small blue fruits are borne in small cymes. Native to central China.

For previous introduction see 35115.

114714. *ANEMONE VITIFOLIA* Buch.-Ham.
Ranunculaceae. Grapeleaf anemone.

No. 18. A stout bushy perennial, 1 to 3 feet in height, with large deeply divided leaves 3 to 6 inches across and open corymbs of beautiful white flowers an inch or more across. Native to the Himalayas at altitudes of 5,000 to 10,000 feet.

For previous introduction see 88511.

114715. *ANISOMELES INDICA* (L.) Kuntze.
Menthaceae.

No. 19. A densely woolly herb 3 to 6 feet high, with ovate-acuminate leaves and dense whorls of small purplish flowers. Native to tropical and subtropical India.

For previous introduction see 41618.

114716. *ARDISIA HENRYI* Hemsl. Myrsinaceae.

No. 20. An evergreen shrub about 3 feet high, with narrow lanceolate leaves about 7 inches long and small white flowers followed by red berries. Native to central and western China.

114717. *AUCUBA CHINENSIS* Benth. Cornaceae.

No. 24. An evergreen shrub similar to *Aucuba japonica*, with lanceolate to obovate leaves up to 8 inches long and small purplish flowers in terminal panicles. Native to southern China.

114718. *BAUHINIA HUPEHANA* Carib. Caesalpiniaceae.

No. 25. A climbing shrub up to 20 feet or more, with broad bilobed leaves and racemes about 4 inches long of small white or pink fragrant flowers. Native to western China.

114719. *BERCHEMIA POLYPHYLLA LEOICLADA* Hand-Mazz. Rhamnaceae.

No. 27. An ornamental woody climber 5 to 15 feet high, with elliptic to ovate leaves about 2 inches long and few small greenish-white flowers in terminal clusters. Native to China.

114720. *BOENNINGHAUSENIA ALBIFLORA* (Hook.) Reichenb. Rutaceae.

No. 30. A slender erect perennial herb 1 to 2 feet high, native to northern India between 4,000 and 8,000 feet altitude. The bipinnate leaves have membranous obovate entire leaflets about 1 inch long, and the slightly nodding, pure-white flow-

114700 to 114823—Continued.

ers, less than an inch across, are borne in compound terminal leafy cymes.

For previous introduction see 102311.

114721. *BUDDLEIA LINDLEYANA SINUATODENTATA* Hemsl. Loganiaceae.

No. 34. A tall bush 3 to 6 feet high, with pale-green leaves nearly 4 inches long and 2 inches wide and purplish-violet flowers in dense erect racemes 3 to 5 inches long. Found in thickets in western Szechwan between 2,000 and 4,000 feet altitude.

For previous introduction see 35177.

114722. *CALLICARPA RUBELLA HEMSLEYANA* Diels. Verbenaceae.

No. 36. A somewhat coarse large deciduous shrub or small tree up to 20 feet high, with large cordate-oblong leaves and many small lilac to purple flowers in axillary clusters, followed by small showy purple berries. Native to western China.

114723. *BOTRYOPLEURON AXILLARE* (Sieb. and Zucc.) Hemsl. Scrophulariaceae.

No. 37. An erect herbaceous perennial, with very small alternate ovate acuminate serrate leaves and small pink flowers in dense spikes scarcely 1 inch long. Native to eastern Asia.

114724. *CAMPANUMOEVA JAVANICA* Blume. Campanulaceae.

No. 38. A perennial twining vine, with opposite leaves and yellowish, brown-veined, broadly bell-shaped flowers over an inch across. Native to Java.

114725. *CASSIA MIMOSOIDES* L. Caesalpiniaceae.

No. 39. An herb about 2 feet high with yellow flowers. Native to tropical Asia.

For previous introduction see 103608.

114726. *CELASTRUS LOESENERI* Rehd. and Wils. Celastraceae. Bitter-sweet.

No. 42. A climbing shrub up to 18 feet high, with broadly elliptic to elliptic-lanceolate leaves about 5 inches long and yellow fruits in terminal clusters. Native to central China.

For previous introduction see 50406.

114727. *CELASTRUS SPICIFORMIS* Rehd. and Wils. Celastraceae.

No. 43. A climbing shrub, up to 18 feet high, with membranous elliptic-ovate leaves about 4 inches long and small whitish flowers in terminal clusters, followed by small yellow fruits. It is related to *Celastrus hypoleuca*. Native to Hupeh and Szechwan Provinces, China.

114728. *CIPADESSA CINERASCENS* (Pelleg.) Hand-Mazz. Meliaceae.

No. 46. A shrub or small tree up to about 20 feet high, sometimes scandent, with large compound leaves and panicles of inconspicuous white flowers. Native to Indo-China.

114729. *CLEMATIS GRATA GRANDIDENTATA* Rehd. and Wils. Ranunculaceae.

No. 49. An ornamental vine about 20 feet high, with silky hairy rounded leaves and solitary or paired pinkish flowers 3 to 4 inches across. Native to central and western China.

For previous introduction see 72793.

114700 to 114823—Continued.

114730. CLEODENDRUM FRAGRANS Willd.
Verbenaceae.

No. 47. An erect half-shrubby clerodendrum 3 to 5 feet high, with broadly ovate leaves and fragrant white or bluish flowers, usually double, in compact terminal corymbs. Native to Japan.

114731. CORNUS CHINENSIS Wangerin.
Cornaceae.

No. 51. A tree, sometimes 40 feet high, with glaucous, ovate leaves 2 to 5 inches long and stalked umbels of small yellow flowers followed by black fruits. It is allied to *Cornus officinalis*. Native to central and western China.

114732. CUCUBALUS BACCIFER L. Silenaceae.

No. 56. A herbaceous perennial with prostrate or climbing stems about 4 feet long and small greenish or yellowish-white flowers in cymes. Native to Europe.

114733. CYNGLOSSUM TRISTE Diels. Boraginaceae.

No. 57. A stout-stemmed biennial up to 18 inches high, with lax racemes of small deep-purple flowers. Native to southwestern China at altitudes of 10,000 to 11,000 feet.

114734. DALBERGIA DYERIANA Prain. Fabaceae.

No. 58. A large shrubby climber with the branchlets sometimes hooked, pinnate leaves, and small whitish flowers in axillary panicles. Native to central and western China.

For previous introduction see 111395.

114735. DAPHNIPHYLLUM MACROPODUM Miqel. Euphorbiaceae.

No. 59. An evergreen shrub with handsome elliptic-oblong, dark-green leathery leaves 5 to 8 inches long, inconspicuous flowers, and small ellipsoidal fruits in axillary racemes 3 inches long. Native to eastern Asia.

For previous introduction see 111394.

114736. DEBERGEASIA EDULIS (Sieb. and Zucc.) Wedd. Urticaceae.

No. 60. A shrub up to 6 feet high, with shining dark-green, oblong-lanceolate to elliptic leaves 3 to 5 inches long and small orange-red fruits. Native to Japan.

114737. DECAISNEA FARGESII Franch. Lardizabalaceae.

No. 61. A handsome deciduous shrub up to 15 feet high, with large drooping pinnate leaves 3 feet long, greenish flowers in pendulous racemes a foot or more long, and deep-blue, oblong-cylindric fruits 3 to 4 inches long. Native to western China.

For previous introduction see 103125.

114738. DEUTZIA PILOSA Rehd. Hydrangeaceae.

No. 64. A shrub about 3 feet high, with ovate membranous leaves up to 3 inches long and cymes of few small flowers. Native to western China.

114739. DIOSPYROS GLAUCIFOLIA Metcalf. Diospyraceae.

No. 67. A tree up to 50 feet high, with ovate or broad-elliptic, dull-green leaves about 5 inches long and small globose

114700 to 114823—Continued.

smooth fruits. Native to southeastern China.

For previous introduction see 104870.

114740. DISPORUM CANTONIENSE Merr. Convallariaceae.

No. 70. A disporum with stems up to 4 feet high, ovate-oblong or lanceolate leaves 2 to 6 inches long, and whitish or dull-purple flowers nearly an inch long. Native to southern China.

114741. DUMASIA VILLOSA DC. Fabaceae.

No. 71. A twining herb with broad-ovate leaflets and axillary racemes of small yellow or purplish flowers. Native to India.

114742. ELAENAGNUS GLABRA Thunb. Elaeagnaceae.

No. 73. An evergreen creeping or climbing shrub up to about 20 feet long, usually unarmed, with shiny elliptic leaves about 3 inches long and small white flowers, solitary or three in a cluster. Native to Japan.

114743. EURYA ACUMINATA DC. Theaceae.

No. 79. A shrub 10 to 12 feet high, with oblong leathery leaves and small white flowers which are either solitary or in fascicles. The wood is reddish white, soft, and close grained.

For previous introduction see 47681.

114744. EUONYMUS DIELSIANUS Loes. Celastraceae.

No. 77. An evergreen shrub about 6 feet high, with lanceolate leaves about 4 inches long and clusters of small white flowers. Native to China.

114745. FICUS CLAVATA Wall. Moraceae.

No. 81. An erect shrub about 6 feet high, with membranous oblong-lanceolate leaves about 5 inches long. Native to India and the Federated Malay States.

114746. FICUS HETEROMORPHA Hemsl. Moraceae.

No. 82. A small shrub of the *Sycidium* section, with exceedingly variable leaves. Native to central China.

114747. FLEMINGIA MACROPHYLLA (Willd.) Kuntze. Fabaceae.

No. 83. An erect woody shrub up to 6 feet high. Native to southeastern Asia.

114748. FORDIOPHYTON FABERI Stapf. Melastomaceae.

No. 84. A much-branched shrub up to 2 feet high, similar to the *osbeckias* in appearance. The opposite leaves are 2 to 4 inches long, narrowly ovate, dark green above, reddish beneath, and the flowers, nearly an inch across, are dark rose with conspicuous yellow stamens. Native to Szechwan, China.

114749. FORDIOPHYTON TUBERCULATUM Guill. Melastomaceae.

No. 85. An erect purplish herb about 1 foot high, with dentate, acuminate leaves, green above and purplish violet beneath, and small red flowers in terminal and axillary clusters. Native to southwestern China.

114750. HELWINGIA CHINENSIS Batal. Cornaceae.

No. 91. A deciduous shrub 3 to 5 feet high, with small green-white flowers borne

114700 to 114823—Continued.

on the midrib of the leaves and followed by black fruits.

For previous introduction see 99175.

114751. HOLBOELLIA FARGESI Réaub. Lar-dizabalaeeae.

No. 92. An evergreen twining shrub up to about 20 feet high, with five to nine leaflets, usually oblong-lanceolate, and small flowers, the pistillate purplish, the staminate greenish white. Native to central and western China.

114752. HOSIEA SINENSIS (Oliver) Hemsl. and E. H. Wils. Icacinaceae.

No. 93. A woody climber about 8 feet high, with cordate leaves 2 to 4 inches long and small whitish flowers followed by orange fruits about one-half inch long. Native to western China.

114753. HYDRANGEA ANOMALA D. Don. Hydrangeaceae.

No. 95. A climbing shrub up to 15 feet, with ovate leaves 3 to 6 inches long and large corymbs of white flowers. Native to Nepal at 4,000 to 10,000 feet altitude.

114754. HYDRANGEA STRIGOSA Rehd. Hydrangeaceae.

No. 96. A shrub 8 feet high, with strigose branchlets. The leaves, oblong-ovate to elliptic-lanceolate, acuminate serrulate or serrate, are sparingly strigose or nearly glabrous above, but densely strigose below and from 3 to 7 inches long. The sterile flowers, white or sometimes purple and over an inch across, are in cymes 4 to 6 inches wide. Native to central China.

For previous introduction see 99176.

114755. IDESIA POLYCARPA Maxim. Flacourtiaceae.

No. 98. A deciduous tree up to 45 feet high, with large ovate to oblong-ovate leaves and small, greenish-yellow fragrant flowers in pendulous panicles up to a foot long. Native to Japan.

114756. IDESIA POLYCARPA VESTITA Diels. Flacourtiaceae.

No. 99. A variety with the leaves densely pubescent below. Native to western China.

114757. ILEX CORALLINA Franch. Aquifoliaceae.
Coral holly.

No. 100. A graceful bushy evergreen shrub up to 10 feet high, which does not have the rigid appearance of most other hollies. The ovate-lanceolate leaves are thin but tough, spiny-serrate and from 4 to 6 inches long, brilliant green on top and pale green underneath. The small coral-red fruits are in dense clusters. Native to western China.

For previous introduction see 103427.

114758. ILEX LATIFOLIA FANGII Rehd. Aquifoliaceae.

No. 101. A variety with smaller, narrower, and thinner leaves. Native to Szechwan, China.

114759. ILEX PERNYI Franch. Aquifoliaceae.

No. 102. A dense-growing evergreen holly of a very dwarf and compact habit, with small dark-green spiny leaves squarish at the base, and red berries. Probably

114700 to 114823—Continued.

allied to *Ilex cornuta*, and first discovered by Père Paul Pery in western China.

For previous introduction see 103221.

114760. JASMINUM UROPHYLLUM Hemsl. Oleaceae.

No. 105. A climbing shrub 6 feet long, similar to *Jasminum dispernum*, but with fewer yellow flowers. Native to western China.

114761. LANGUAS JAPONICA (Thunb.) Sasaki. Zinziberaceae.

No. 107. A subtropical gingerlike perennial with leafy stems about 1 foot high, the leaves rather large and lanceolate. The small reddish flowers are in terminal panicles. Native to the warmer areas of Japan.

114762. LASIANTHUS FORDII Hance. Rubiaceae.

No. 108. A small shrub with elliptic-lanceolate leaves about 4 inches long which are deep lustrous green above, and small white flowers in sessile cymes. Native to China.

114763. LIGUSTRUM COMPACTUM Hook. f. and Thoms. Oleaceae.

No. 110. A shrub or small tree sometimes 30 feet high, native to the mountains of southwestern China. The persistent leaves are 3 to 6 inches long and the small white flowers, in large panicles, are followed by blue-black fruits.

For previous introduction see 111361.

114764. LINDERA COMMUNIS Hemsl. Lauraceae.

No. 111. An evergreen shrub or small tree up to 15 feet high, with somewhat lanceolate leaves about 3 inches long and umbels of small yellow flowers, followed by dark-red fruits. Native to central and western China.

114765. LINDERA MEGAPHYLLOIDES Hemsl. Lauraceae.

No. 112. An evergreen shrub or tree up to 60 feet high, with large oblong or oblanceolate, lustrous leaves and umbels of numerous small yellow flowers appearing in March and April. Native to central China.

For previous introduction see 111364.

114766. LINDERA STRYCHNIFOLIA HEMSLEYANA Diels. Lauraceae.

No. 113. A deciduous bush 6 to 9 feet high, with lanceolate to ovate leaves, clusters of small yellow flowers, and black fruits. Native to western China at altitudes of 3,000 to 5,000 feet.

114767. LITSEA POPULIFOLIA (Hemsl.) Gamble. Lauraceae.

No. 114. A shrub or small tree native to western China, with obovate leathery leaves about 4 inches long and small black berries.

114768. LONICERA FUCHSIODES Hemsl. Caprifoliaceae.

No. 115. An erect shrub with stiff, oblong or ovate-oblong leaves up to 6 inches long and orange or reddish flowers about an inch long in pairs and in many-flowered terminal racemes. Native to western China.

114700 to 114823—Continued.

114769. MAESA HENRYI Hu. Myrsinaceae.

No. 118. An evergreen shrub 5 feet high, with elliptic or lanceolate leaves up to 6 inches long and numerous white flowers in diffuse panicles. Native to southwestern China.

114770. MALLOTUS REPANDUS (Willd.) Muell. Arg. Euphorbiaceae.

No. 119. A large scandent evergreen shrub or tree, native to tropical Asia, with broadly rhombic-ovate leaves about 3 inches long and clusters of small yellow flowers.

114771. MILLETTIA DIELSIANA Harms. Fabaceae.

No. 123. A handsome shrubby climber up to 20 feet in length, with oblong-lanceolate leaflets 2 to 4 inches long and terminal panicles of small dark-red flowers. Native to western China.

For previous introduction see 55663.

114772. MUSSAENDA DIVARICATA Hutch. Rubiaceae.

No. 124. An erect or climbing evergreen shrub 3 feet or more in height, with elliptic-ovate, abruptly acuminate, papery leaves 3 to 5 inches long and lax cymes of yellow flowers. Native to western China.

114773. MYRSINE SEMISERRATA Wall. Myrsinaceae.

No. 125. A small handsome evergreen shrub with round glossy-green leaves about half an inch across and small dark-red fruits. Native to northeastern India and western China.

For previous introduction see 67774.

114774. PATRINIA SCABIOSAEFOLIA Fisch. Valerianaceae.

No. 128. An erect perennial 1 foot high, with the lower leaves auriculate, ovate, and 2 inches long. The upper leaves are ovate, dentate, and smaller. The small yellow flowers are in terminal cymes. Native to Japan.

114775. PHOTINIA DAVIDSONIAE Rehd. and Wils. Malaceae.

No. 129. A handsome evergreen tree 20 to 30 feet high, with dense foliage, native to Hupeh, western China. The leathery oblong or lanceolate leaves are up to 6 inches long, and the white flowers, nearly half an inch across, are in many-flowered terminal corymbs. The globose orange-red berries are about one-third of an inch in diameter.

For previous introduction see 102258.

114776 to 114778. PITTOSPORUM spp. Pittosporaceae.

114776. PITTOSPORUM DAPHNIPHYLLOIDES Hay.

No. 132. A small evergreen tree up to 15 feet high, with green fruits containing scarlet seeds. Native to Taiwan.

For previous introduction see 99195.

114777. PITTOSPORUM GLABRATUM Lindl.

No. 133. An evergreen shrub or small tree, native to northeastern India and central China, with oblong-lanceolate leaves. The small fragrant yellow flow-

114700 to 114823—Continued.

ers, produced in corymbs, are succeeded by orange fruits.

For previous introduction see 113871.

114778. PITTOSPORUM GLABRATUM NERIIFOLIUM Rehd. and Wils.

No. 134. A variety with long, oblong-lanceolate leaves. Native to western China.

114779 to 114781. PRUNUS spp. Amygdalaceae.

114779. PRUNUS PUBIGERA (C. Schneid.) Koehne.

No. 139. A tree up to 60 feet high, with obovate-oblong leaves about 4 inches long and many small white flowers in racemes. Allied to *Prunus padus*. Native to western China.

114780. PRUNUS RUFOMICANS Koehne.

No. 140. A deciduous tree up to about 90 feet high, with oblong-serrulate leaves, densely tomentose beneath, and racemes of small white flowers. Native to western China.

114781. PRUNUS WILSONII (Diels) Koehne.

No. 142. A large tree up to 60 feet high, with oblong leaves, silky tomentose beneath, and racemes of small white flowers. Native to central China.

114782. QUISQUALIS INDICA L. Combretaceae. Rangoon-creeper.

No. 209. A rambling subscandent shrub, native to India, with opposite obovate leaves 4 inches long and short axillary and terminal spikes of tubular pink or red flowers. The obovoid fruits are 1 to 2 inches long and are sharply five-angled.

For previous introduction see 108992.

114783. RANDIA HENRYI E. Pritz. Rubiaceae.

No. 146. An evergreen shrub or small tree, with small leathery lanceolate leaves dark green above and few white flowers about an inch across in nearly sessile cymes. Native to central China.

114784. RHODODENDRON CALOPHYTUM Franch. Ericaceae.

No. 149. A shrub or tree from 15 to 50 feet high, native to western Szechwan, China. The bright-green leathery leaves are 8 to 12 inches long, and the rosy-white to red flowers, 2 to 3 inches long, are borne in loose racemose clusters of up to 30.

For previous introduction see 97659.

114785. RHUS PUNJABENSIS SINICA (Diels) Rehd. and Wils. Anacardiaceae. Sumac.

No. 150. A small tree 15 to 20 feet high, with a short relatively thick trunk covered with dark-gray, moderately smooth bark. The numerous spreading branches form a round flattened head, and in the autumn the dark-red or crimson panicles make the tree very attractive. It is abundant in thickets in western Hupeh and Szechwan.

For previous introduction see 38158.

114786. RIBES MOUPINENSE Franch. Grossulariaceae. Currant.

No. 153. A shrub from 3 to 15 feet high, with somewhat twisted branches,

114700 to 114823—Continued.

variable leaves, and glabrous, sessile, turbinate flowers, greenish red or washed with red. Native to the high mountainous country of eastern Tibet and western China.

For previous introduction see 40465.

114787. ROSA CORYMBULOSA Rolfe. *Rosaceae*.
White-eye rose.

No. 154. An unarmed or sparsely prickly rose from central China. The numerous small flowers, which are deep rose above and white at the base, are up to an inch wide. Native to thickets in western Hupeh at 1,300 to 3,600 feet altitude.

For previous introduction see 43885.

114788. ROSA DAVIDI Crepin. *Rosaceae*.
David rose.

No. 155. A pink-flowered, orange-fruited rose 3 to 18 feet high, native to western Szechwan, China, at altitudes of 4,000 to 9,000 feet. It is the nearest Chinese relative of *Rosa acrophylla* of the western Himalayas.

For previous introduction see 73447.

114789 to 114793. RUBUS spp. *Rosaceae*.

114789. RUBUS AMPELINUS Focke.

No. 158. A prostrate shrub similar to *Rubus lambertianus*, with slender stems about 3 feet long, broad-ovate leaves about 2 inches long, and terminal clusters of few small flowers. Native to central China.

For previous introduction see 113811.

114790. RUBUS CHROOSEPALUS Focke.

No. 159. A Chinese bramble with glabrous cordate leaves, white tomentose beneath, and small purplish flowers followed by black fruits. Native to Hupeh Province.

For previous introduction see 113813.

114791. RUBUS ICHANGENSIS Hemsl. and Kuntze.

No. 161. A straggling plant with white flowers, found in thickets between 2,000 and 4,000 feet altitude in central and western China. The small fruits are of good flavor.

For previous introduction see 113815.

114792. RUBUS MESOGAEUS Focke.

No. 162. A bramble, native to central China, with slender climbing stems 12 to 15 feet long, rather small flowers, and small globose berries.

For previous introduction see 113817.

114793. RUBUS SETCHUENENSIS Bureau and Franch.

No. 163. A deciduous straggling shrub about 2 feet high, with deeply-lobed, mallowlike leaves and many small purple flowers in dense panicles, followed by black fruits of good flavor. Native to western China.

For previous introduction see 113820.

114794. SALIX LONGIFLORA Anderss. *Salicaceae*.

No. 164. A small willow up to 30 feet high, with elliptic variable leaves, the larger ones up to 6 inches long. Native to the Himalayas at about 9,000 feet altitude.

114700 to 114823—Continued.

114795. SALIX LUCTUOSA Lév. *Salicaceae*.

No. 165. A shrubby willow of the *Denticulata* group, with small narrow elliptic-lanceolate leaves. Native to Yunnan Province, China.

114796. SAMBUCUS JAVANICA Reinw. *Caprifoliaceae*.
Elder.

No. 166. A straggling shrub about 6 feet high, with acuminate leaflets and flat clusters of ovoid red berries. Native to eastern Asia, ascending to 6,000 feet in the Himalayas.

114797. SAUSSUREA GLOMERATA CHINENSIS Chen. *Asteraceae*.

No. 167. A stout herbaceous perennial, with pinnatifid leaves and numerous red flower heads in paniced corymbs. Native to China.

114798. SCHIZANDRA PROPINQUA (Wall.) Hook. f. and Thoms. *Magnoliaceae*.

No. 168. An evergreen twining shrub with ovate-lanceolate leaves about 4 inches long and small yellow or orange flowers. Native to the Himalayan region at altitudes of 4,000 to 8,000 feet.

114799. SCHIZANDRA RUBRIFLORA (Franch.) Rehd. and Wils. *Magnoliaceae*.

No. 169. An evergreen climbing shrub with ovate denticulate leathery leaves 3 to 5 inches long, axillary clusters of dark-red flowers, and persistent clusters of bright-red berries. Native to western China.

For previous introduction see 76597.

114800. SCHIZOPHRAGMA INTEGRIFOLIA Oliver. *Hydrangeaceae*.
Chinese hydrangea-vine.

No. 170. A trailing shrub about 18 feet long, with ovate or broadly-ovate thickish bright-green leaves, usually pubescent on the veins beneath, and cymes 10 inches across of white flowers. Native to western China.

For previous introduction see 99179.

114801. STEGEBECKIA ORIENTALIS L. *Asteraceae*.

No. 171. An erect yellow-flowered annual up to 3 feet high. Native to the Tropics of both hemispheres.

114802. SINOMENIUM ACUTUM (Thunb.) Rehd. and Wils. *Menispermaceae*.

No. 172. A twining shrub up to 20 feet high, with large ovate entire or three-to seven-lobed leaves and long panicles of small bluish berries. Native to Japan.

114803. SPIRAEA JAPONICA ACUMINATA Franch. *Rosaceae*.
Spirea.

No. 181. A handsome hardy deciduous Chinese shrub 3 to 6 feet in height, native to western Szechwan and Hupeh at altitudes of 3,500 to 4,500 feet. The brilliant rose-colored or red flowers make a very fine contrast with the dark-green foliage.

For previous introduction see 49685.

114804. STACHYRUS sp. *Stachyuraceae*.

No. 182. Received as "latifolia," a name for which a place of publication has not been found.

114805. STACHYRUS YUNNANENSIS Franch. *Stachyuraceae*.

No. 183. A procumbent evergreen shrub, with lax racemes of small pale-

114700 to 114823—Continued.

yellow flowers. Native to western and southwestern China.

114806. *SWERTIA BIMACULATA* (Sieb. and Zucc.) Hook. f. and Thoms. Gentiana-ceae.

No. 184. An erect annual 2 to 6 feet high, with numerous white or yellowish-green flowers in panicles. The plant is native to the eastern Himalayas at altitudes of 5,000 to 8,000 feet.

For previous introduction see 111093.

114807. *SYMPLOCOS LAURINA* (Retz) Wall. Symplocaceae.

No. 185. An evergreen shrub or small tree, with broad-lanceolate leaves about 5 inches long and fragrant small white flowers in spikes about 4 inches long. Native to India.

114808. *THLADIANTHA CALCARATA* C. B. Clarke. Cucurbitaceae.

No. 188. A large herbaceous climber, with cordate leaves about 4 inches long and golden yellow flowers, over an inch across, in racemes. Native to India.

114809. *TREMA VIRGATA* (Planch.) Blume. Ulmaceae.

No. 192. A small tree, allied to *Celtis*.

114810. *TRICALYSIA VIRIDIFLORA* (DC.) Matsum. Rubiaceae.

No. 193. An evergreen shrub or small tree of the habit of *Canthium* with oblong-lanceolate shiny leaves 2 to 4 inches long and small pale-yellow flowers in short dense axillary cymes. Native to China.

114811. *TURPINIA POMIFERA* (Roxb.) DC. Staphyleaceae.

No. 195. A small tree with odd-pinnate leaves 1 to 2 feet long, made up of three to nine crenate-serrate ovate leaflets 3 to 8 inches long. The small yellowish flowers are in terminal panicles 6 to 10 inches long and are followed by fleshy green, yellow or red subglobose fruits 2 inches in diameter. It is native to the subtropical slopes of the Himalayas in India.

For previous introduction see 94084.

114812. *URENA LOBATA* L. Malvaceae.

No. 196. An erect undershrub with cordate entire or lobed leaves 2 to 3 inches long, flowers an inch across, rose red at the base, and small fruits armed with hooked bristles. The stems furnish fiber, used for bags and twine. Native to tropical Asia.

For previous introduction see 77937.

114813. *CUDRANIA TRICUSPIDATA* (Carr.) Bureau. Moraceae.

No. 197. A thorny shrub or small tree, native to eastern Asia. The fruits, resembling clusters of red raspberries, are edible, and the plant has been recommended as a good hedge plant for the Southern States. The extremely hard wood is used for tools, and the ovate, usually entire leaves are used in some sections to feed silkworms.

For previous introduction see 79547.

114814. *VERNONIA BOCKIANA* Diels. Asteraceae.

No. 198. A tree about 20 feet high, with membranous, oblong-lanceolate leaves

114700 to 114823—Continued.

up to about 6 inches long and many small lavender flower heads. Native to western China.

114815 to 114821. *VIBURNUM* spp. Caprifoliaceae.

114815. *VIBURNUM BRACHYBOTRYUM* Hemsl.

No. 199. A shrub about 10 feet high, with leathery obovate to oblong leaves up to 3 inches long and many small white flowers in large terminal panicles. Native to central China.

114816. *VIBURNUM CORDIFOLIUM* Wall.

No. 200. A large subtropical shrub, with heart-shaped sharply toothed leaves and small dense corymbs of white flowers. Native to the temperate Himalayas.

For previous introduction see 94049.

114817. *VIBURNUM DILATATUM* Thunb. Linden viburnum.

No. 201. A profusely flowering shrub up to 10 feet high, native to China and Japan. The pure-white flowers, in cymes 3 to 5 inches across, are produced at the top of the branch and also from short twigs down the sides. The bright-red fruits are less than an inch long.

For previous introduction see 53745.

114818. *VIBURNUM FOETIDUM* Wall.

No. 203. An upright, half-evergreen shrub up to 10 feet high, with elliptic to oblong-obovate leaves about 2 inches long. The small white flowers, in corymbs 2 inches across, are followed by small scarlet fruits. Native to the Himalayas and southwestern China.

114819. *VIBURNUM ICHANGENSE* (Hemsl.) Rehd.

No. 204. A white-flowered, red-fruited shrub, with yellowish-green leaves, native to China.

For previous introduction see 53747.

114820. *VIBURNUM OLIGANTHUM* Batalin.

No. 206. A deciduous shrub with elliptic-lanceolate leaves and paniculate cymes of small white flowers. Native to western China.

114821. *VIBURNUM* sp.

No. 205. Received as *Viburnum Iobophyllum*, but the seeds do not agree with those of that species.

114822. *PAGARA STENOPHYLLA* (Hemsl.) Engl. Rutaceae.

No. 208. A scandent shrub up to 6 feet high, often with slender hooked prickles on the leafstalks. The ovate-oblong to lanceolate leaflets are glabrous and 1 to 3 inches long. The small reddish beaked flowers, in loose terminal cymes 2 to 3 inches across, have long exerted stamens. Native to southwestern China.

For previous introduction see 34588.

114823. (Undetermined.)

No. 65.

114824 to 114843. *NICOTIANA* spp. Solanaceae. Tobacco.

From California. Seeds collected by the University of California Botanical Garden

114824 to 114843—Continued.

Expedition to the Andes, 1935-36, and presented by T. H. Goodspeed, Department of Botany, University of California, Berkeley. Received May 1, 1936.

114824. NICOTIANA CORYMBOSA Remy.

No. 4995. A semiprostrate tobacco, native to Chile at about 8,000 feet altitude.

114825. NICOTIANA GLAUCA R. Grah.
Tree tobacco.

No. 4510. A plant from 6 to 20 feet high, with yellow flowers; grows commonly throughout Mexico.

For previous introduction see 112354.

114826. NICOTIANA PANICULATA L.

No. 4010. A viscid-pubescent annual having a simple stem 2 to 3 feet tall and yellowish-green flowers in terminal panicles. Native to Peru.

For previous introduction see 42339.

114827. NICOTIANA RUSTICA L.
Aztec tobacco.

Mrs. Ynes Mexia's No. 7381. From the Hacienda Curippojoyo, Ibarra, Provincia Imbabura, Ecuador. A common perennial with greenish-yellow flowers. Collected at about 7,000 feet altitude.

For previous introduction see 110328.

114828. NICOTIANA RUSTICA L.
Aztec tobacco.

No. 4111.

114829 to 114836. NICOTIANA TABACUM L.
Common tobacco.

114829. No. 3931. 114833. No. 4160.

114830. No. 4098. 114834. No. 4265.

114831. No. 4159. 114835. No. 4283.

114832. No. 4109. 114836. No. 7364.

114837 to 114841. NICOTIANA TOMENTOSA Ruiz and Pav.
Giant tobacco.

For previous introduction see 23914.

114837. No. 3736. 114840. No. 4505.

114838. No. 3762. 114841. No. 4507.

114839. No. 4110.

114842. NICOTIANA sp.
No. 4161.114843. NICOTIANA sp.
No. 3797.

114844. CROTALARIA sp. Fabaceae.

From Bolivia. Seeds collected by H. C. Stuntz, the American Institute, La Paz. Received April 30, 1936.

Collected in the Yungas region at 6,500 feet altitude, where the plant grows into a large bush and is browsed by cattle.

114845 to 115046.

From India. Seeds and bulbs collected by Walter Koelz, Bureau of Plant Industry. Received April 21, 1936.

Unless otherwise mentioned, the material was collected as seeds.

114845. ABELMOSCHUS ESCULENTUS (L.) Moench. Malvaceae. Okra.

No. 88. *Bandakka*. From near Kandy, Ceylon, February 25, 1936.

114845 to 115046—Continued.

114846. ACACIA sp. Mimosaceae.

No. 190. From Coimbatore, southern India, March 4, 1936. A tree 60 feet high and 18 inches in diameter.

114847 to 114850. ALLIUM spp. Liliaceae.

114847. ALLIUM ASCALONICUM L. Shallot.

No. 189. Bulbs from Coimbatore, southern India, March 11, 1936. Said to be grown locally.

For previous introduction see 114324.

114848. ALLIUM CEPA L. Onion.

No. 221. *Yeragadda*. From Bangalore, Mysore, March 5, 1936. A native red onion.

114849. ALLIUM SATIVUM L. Garlic.

No. 232. Bulbs from Bombay, March 8, 1936. Said to have come from the Calcutta area.

114850. ALLIUM SATIVUM L. Garlic.

No. 194. Bulbs from Bangalore, Mysore, March 5, 1936.

114851 to 114856. AMARANTHUS spp. Amaranthaceae.

114851. AMARANTHUS GANGETICUS L. Ganges amaranth.

No. 210. *Kaikura*. From Bangalore, Mysore, March 5, 1936. Used as greens.

For previous introduction see 114417.

114852. AMARANTHUS MANGOSTANUS Just.

No. 212. *Chirakura*. From Bangalore, Mysore, March 5, 1936. A vegetable used as greens.

For previous introduction see 34455.

Nos. 114853 to 114855 were collected at Teldeniya, near Kandy, Ceylon, February 25, 1936.

114853. AMARANTHUS sp.

No. 99. *Rata tampala*.

114854. AMARANTHUS sp.

No. 100. *Tampala*.

114855. AMARANTHUS sp.

No. 102. *Lansi tampala*.

114856. AMARANTHUS sp.

No. 219. *Dankukura*. From Bangalore, Mysore, March 5, 1936.

114857. AMYGDALUS COMMUNIS L. Amygdalaceae. Almond.

No. 248. Bombay, March 10, 1936. Sold as Persian almonds from Isfahan. Flavor very good; hard shelled.

114858. ANETHUM GRAVEOLENS L. Apiaceae. Dill.

No. 218. *Subakshi Kura*. Bangalore, Mysore, March 5, 1936. Said to be used as a green vegetable; also for flavoring.

114859. ANNONA RETICULATA L. Annonaceae. Custard-apple.

No. 123. *Anada*. From Kandy, Ceylon, February 26, 1936. The fruit is the size of an ostrich egg, with agreeably sweet white flesh.

114845 to 115046—Continued.

114860. *ARISTEA MCKLONI* Baker. Iridaceae.

No. 139. From Nuwara Eliya, Ceylon, February 28, 1936. A perennial herb with a rosette of linear leaves 6 to 18 inches long and flattened flower stems 2 feet long. The bright-blue flowers, one-third of an inch long, are borne in clusters arranged in a lax corymbose panicle with ascending branches. It is native to southern Africa and has been naturalized in Ceylon where it is growing in large clumps.

For previous introduction see 94174.

114861. *ARISTOLOCHIA ELEGANS* Masters. Aristolochiaceae. Calicoflower.

No. 172-P. *Dove creeper*. From Kandy, Ceylon. A perennial vine with long-stalked, broadly ovate leaves 2 to 3 inches across; the solitary flowers, without unpleasant odor, are borne on the pendulous young wood. The flowers have a yellow-green tube 2 to 3 inches long and a purple and white blotched cordate-circular limb 3 inches across. It is native to Brazil.

For previous introduction see 98798.

114862. *ATRIPLEX HASTATA* L. Chenopodiaceae.

No. 225. *Chakranti Kura*. From Bangalore, Mysore, March 5, 1936.

114863. *AVERRHOA BILIMBI* L. Oxalidaceae. Bilimbi.

No. 7. *Biling*. From Colombo, Ceylon, February 20, 1936. Fruit of a tropical tree 20 to 60 feet high, cultivated for the sake of its greenish-yellow, cucumber-shaped acid fruits, 3 to 4 inches long, which are pickled or used as a relish with meat.

For previous introduction see 110684.

114864. *BASELLA RUBRA* L. Basellaceae.

No. 72. From the market at Kandy, Ceylon, February 23, 1936. A succulent, herbaceous, freely branched climber, native to Bengal and cultivated throughout India. The leaves and stems are used as a potherb as we use spinach. The black fruit has magenta-colored juice.

For previous introduction see 96388.

114865. *BAUHINIA VARIEGATA* L. Caesalpinaceae. Buddhist baubinia.

No. 216. From Bangalore, Mysore, March 5, 1936. An Indian tree up to 20 feet high, with broadly ovate leaves two-lobed at the top and small clusters of large white flowers beautifully variegated with red and yellow.

For previous introduction see 99691.

114866. *BENINCASA HISPIDA* (Thunb.) Cogn. Cucurbitaceae. Waxgourd.

No. 4. *Puhul-goddia* or *ash-pumpkin*. From the market at Colombo, Ceylon, February 20, 1936. The greenish rounded elliptical fruits are up to 2 feet long and covered with waxy bloom.

For previous introduction see 114422.

114867. *BENINCASA HISPIDA* (Thunb.) Cogn. Cucurbitaceae. Waxgourd.

No. 155. *Jeta-puhul*. From Kandy, Ceylon, February 28, 1936.

114868. *BRASSICA OLERACEA BOTRYTIS* L. Brassicaceae. Cauliflower.

No. 120. Originally obtained in Marseilles, France, January 31, 1936.

114845 to 115046—Continued.

114869. *CAESALPINIA PULCHERRIMA* (L.) Swartz. Caesalpinaceae. Flowerfence.

No. 172-A. A handsome tropical evergreen shrub about 7 feet high, with mimosalike foliage and yellow flowers, which appear on the new growth.

For previous introduction see 109207.

114870. *CALONYCTION ACULEATUM* (L.) House. Convolvulaceae.

No. 83. *Alanga*. From Teldeniya, near Kandy, Ceylon, February 25, 1936. A woody climber with large white flowers that are said to open in the evening.

For previous introduction see 4882.

114871 and 114872. *CANAVALIA GLADIATA* (Jacq.) DC. Fabaceae. Swordbean.

Ali-awara, awara. Collected at Teldeniya near Kandy, Ceylon, February 25, 1936. A woody climber whose pods and dried beans are used as food.

114871. No. 101. 114872. No. 102-A.

114873 and 114874. *CANAVALIA ENSIFORMIS* (L.) DC. Fabaceae. Jackbean.

Pods and dried beans eaten as food.

114873. No. 92. *Gas-awara, gas-boncl*. From Teldeniya, near Kandy, Ceylon, February 25, 1936.

114874. No. 217. *Tamatakan*. From Bangalore, Mysore, March 5, 1936.

114875. *CANNA GLAUCA* L. Cannaceae.

No. 172-K. A mixed sample of double varieties.

114876 to 114884. *CAPSICUM ANNUUM* L. Solanaceae. Common redpepper.

114876. No. 170. *Miris*. From Keke-riwa, Ceylon, March 2, 1936. A rather mild pepper with short blunt pods three-fourths of an inch long.

114877. No. 188. From Coimbatore, southern India, March 4, 1936. A mild redpepper, 1 inch long and acorn shaped, which is slightly acid.

114878. No. 205. *Mirapa kaya*. From Bangalore, Mysore, March 5, 1936. Said to have been grown at Chikbalapur. A short stout variety, 2 inches long.

114879. No. 206. *Mirapa kaya*. From Bangalore, Mysore, March 5, 1936. Said to have been grown at Tiptur. A slender pepper, 4 inches long.

Nos. 114880 to 114884 were collected in Bombay, March 8, 1936, in the market.

114880. No. 239. Said to have been grown at Surat District.

114881. No. 238. From Kathiwan District.

114882. No. 240. From Poona, a very hot pepper.

114883. No. 241. From Belgaum District. A sweet, mildly sharp pepper.

114884. No. 244. A very hot pepper 1 inch long.

114885. *CAPSICUM FRUTESCENS* L. Solanaceae. Bush redpepper.

No. 32. *Velchi Miris*. From the Colombo, Ceylon, market, February 20, 1936. A pepper 4 inches long.

For previous introduction see 114424.

114845 to 115046—Continued.

114886. *CAPSICUM ANNUUM* L. Solanaceae.
Common redpepper.

No. 119. *Nai-Miris*. From Katu Kasbabu, near Kandy, Ceylon, February 26, 1936.

114887. *CAPSICUM FRUTESCENS* L. Solanaceae.
Bush redpepper.

No. 63. *Guinea* pepper, *Kochi-Miris*, *Irkochika*. From the Kandy, Ceylon, market, February 23, 1936.

114888. *CARYOPHYLLUS JAMBOS* (L.) Stokes. Myrtaceae. Rose-apple.

No. 288. *Panirupandu*. From Bangalore, Mysore, March 5, 1936. A medium-sized, handsome tree, native to India and the Malay Peninsula, but cultivated in many tropical countries for the edible, fragrant, pinkish fruits about the size of a hen's egg of a sweetish acid taste, and used as preserves.

For previous introduction see 100722.

114889 to 114895. *CASSIA* spp. Caesalpiniaceae.

114889. *CASSIA FISTULA* L. Golden-shower.

No. 172-E. From Kandy, Ceylon. An ornamental tree with handsome pinnate foliage and long pendulous racemes of golden-yellow flowers. Native to India.

For previous introduction see 93775.

114890. *CASSIA GRANDIS* L. f. Pink-shower.

No. 172-I. From Kandy, Ceylon. A handsome tree 40 to 50 feet high that produces masses of pale-pink flowers in the early spring before the pinnate leaves appear. Native to Panama.

For previous introduction see 110825.

114891. *CASSIA HIRSUTA* L.

No. 171. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936. A shrub up to 2 feet high, covered throughout with long hairs, with the compound leaves made up of three to five pairs of ovate leaflets 2 to 3 inches long and small yellow flowers in axillary racemes. Native to Brazil.

For previous introduction see 111211.

114892. *CASSIA LAEVIGATA* Willd. Smooth senna.

No. 171-A. From the Botanic Gardens, Hakgala, Ceylon. A handsome yellow-flowered shrub or small tree, with dark-green, glossy, evergreen foliage.

For previous introduction see 70898.

114893. *CASSIA OCCIDENTALIS* L.

No. 107. *Rata-tora*. From the market at Kandy, February 25, 1936. A shrub 2 feet high with yellow flowers.

For previous introduction see 109976.

114894. *CASSIA TOMENTOSA* L. f. Woolly senna.

No. 172. From the Botanic Gardens, Hakgala, Ceylon. The *Ranawara* of the Singhalese is a rapid-growing shrub with large yellow flowers. It is found wild in the dry portions of Ceylon.

For previous introduction see 67682.

114845 to 115046—Continued.

114895. *CASSIA TORA* L.

No. 106. From Peradeniya, near Kandy, Ceylon, February 25, 1936. Pods and leaves are used as a vegetable.

114896. *CASUARINA DISTYLA* Vent. Casuarinaceae.

No. 171-B. From the Botanic Gardens, Hakgala, Ceylon. A small shrub 2 to 3 feet high.

For previous introduction, see 90680.

114897. *CEIBA PENTANDRA* (L.) Gaertn. Bombacaceae. Kapok.

No. 161. *Pulung*. Near Kandy, Ceylon.

For previous introduction see 87477.

114898. *COCCINIA CORDIFOLIA* (L.) Cogn. Cucurbitaceae.

No. 157. *Koway*. From Dumballa, Ceylon, March 1, 1936, at 1,000 feet altitude. A perennial tropical vine with small broadly ovate-cordate, deep-green leaves, white flowers, and red fruits about 2 inches long which taste like cucumbers. Native to eastern India.

For previous introduction see 106952.

114899. *CESTRUM ELEGANS* (Brongn.) Schlecht. Solanaceae.

No. 127. February 27, 1936. From Nuwara-Eliya, Ceylon, at 6,500 feet altitude. A slender graceful shrub with attractive dark-green, ovate-lanceolate leaves about 4 inches long and clusters of showy carmine flowers and berries. It is native to Mexico, but has become naturalized in the high regions of Ceylon.

114900 to 114906. *CITRULLUS VULGARIS* Schrad. Cucurbitaceae. Watermelon.

114900. No. 3. *Peni-Komardu*. From the market at Colombo, Ceylon, February 20, 1936. Fruits dark green with darker stripes. Flesh red-pink, rather insipid.

114901. No. 40. *Peni-Komardu*. From the market at Colombo, Ceylon, February 21, 1936. Fruits pale green, unmarked, up to 5 pounds in weight. The red-pink flesh is of fair quality.

114902. No. 97. *Peni-puhul*. From Teldeniya, near Kandy, Ceylon, February 25, 1936. Used boiled as a vegetable.

114903. No. 98. *Getupuhul*. From near Colombo, Ceylon, February 25, 1936. Said to be a good vegetable.

114904. No. 176. From Coimbatore, southern India, March 4, 1936. A dark-green melon 14 inches long, with rather insipid flesh.

114905. No. 192. From Bangalore, Mysore, India, March 5, 1936. An unmarked dark-green melon of fair flavor.

114906. No. 193. From Bangalore, Mysore, March 5, 1936. An elongated, light-green melon with heavy black-green striping; weight about 5 pounds and the flavor is fair.

114907. *CITRUS LIMONIA* Osbeck. Rutaceae. Lemon.

No. 200. From Bangalore, Mysore, March 5, 1936. Presented by the Superintendent of the Government Horticultural Garden. A fine-flavored lemon.

114845 to 115046—Continued.

114908. CITRUS sp. Rutaceae.

No. 204. *Maduwalla, Kadharangai, Dab-bagahi*. From Bangalore, Mysore, March 5, 1936. Presented by the Superintendent, Government Horticultural Garden. A shrub or small tree which produces large warty fruits a foot long, weighing 3 pounds, with sweetish rind 1 inch thick and insipid flesh. It is preserved for medicinal purposes.

114909. CLEOME sp. Capparidaceae.

No. 172-F. From Kandy, Ceylon. An ornamental herb with clusters of pink and white flowers.

114910. TEPHROSIA VOGELII Hook. f. Fabaceae.

No. 132. From a tea field on the Nuwara-Eliya Road, Ceylon, February 27, 1936, at 5,000 feet altitude.

For previous introduction see 111348.

114911 to 114923. CUCUMIS spp. Cucurbitaceae.

114911 to 114913. CUCUMIS MELO L.

Muskmelon.

Nos. 114911 to 114915 were collected at Coimbatore, southern India, March 4, 1936.

114911. No. 180. *Artani palam*. A fruit 18 inches long, elongate, netted, greenish yellow, with salmon flesh of fair flavor.

114912. No. 181. *Welakosa*. A round smooth, creamy-white melon 1 foot in diameter, with pale salmon-colored, fragrant flesh of poor flavor.

114913. No. 184. *Shakan palam*. A small sparsely netted flattened brown melon with firm but not tough, pale salmon-colored flesh of fair flavor, which will shrivel but not rot. An excellent keeper.

114914. No. 186. *Molampalam*. A slightly netted, brown-yellow, cylindrical fruit 8 inches long, with fragrant salmon-colored flesh, which is rather insipid.

114915. No. 187. A fruit the size, shape, and color of a grapefruit with pale salmon-colored flesh, which is mealy and insipid.

Nos. 114916 to 114918 were collected at Bangalore, Mysore, March 5, 1936.

114916. No. 195. A fruit the size, shape, and color of a smooth-skinned large grapefruit. The white flesh is of good flavor.

114917. No. 196. Fruit ellipsoid, 1 foot long, well-netted with white insipid flesh.

114918. No. 197. A rounded, well-netted yellow fruit 8 inches in diameter, with white insipid flesh that is not mealy.

114919 to 114923. CUCUMIS SATIVUS L. Cucumber.

Nos. 114919 and 114920 were collected in the market at Colombo, Ceylon, February 20, 1936.

114919. No. 34. *Pipinga*. A yellow-brown, thick-fleshed fruit 15 inches long, which is cooked or eaten raw.

114845 to 115046—Continued.

114920. No. 36. *Keriri*. A golden-brown, roundish fruit.

Nos. 114921 to 114923 were collected at Coimbatore, March 4, 1936.

114921. No. 174. *Waterika*. A banana-shaped cucumber 18 inches long when ripe, commonly sold while immature (6 inches long); excellent as a salad vegetable.

114922. No. 185. *Waterika*. Very similar to No. 174 [P. I. 114921].

114923. No. 227. *Malabar waterika*. A golden-brown fruit, streaked with lighter brown, about 8 inches long. Said to keep in edible condition for a year. Peculiar to the Malabar coast where it has been grown since ancient times.

114924 to 114931. CUCURBITA spp. Cucurbitaceae.

114924. CUCURBITA MAXIMA Duchesne. Squash.

No. 162. *Rata Wataka*. A Siamese squash received from Dumballa, Ceylon, March 1, 1936. Said to be better than the local variety; rather rare.

114925. CUCURBITA MAXIMA Duchesne. Squash.

No. 175. *Rata Wataka*. From Keke-riwa, Ceylon, March 2, 1936. Introduced from Siam and said to be superior to the local varieties. The gray elongated fruit is pointed at both ends, has thick yellow flesh, and weighs up to 10 pounds.

114926 to 114930. CUCURBITA MOSCHATA Duchesne. Cushaw.

114926. No. 5. *Wataka*. From the market at Colombo, Ceylon, February 20, 1936. A brownish-yellow, faintly ribbed, elongated fruit with yellow flesh, which commonly weighs about 40 pounds. Said to keep for several months in a dry place.

114927. No. 6. From the market at Colombo, Ceylon, February 20, 1936. Like No. 5 [P. I. 114926], but smaller and more like a pumpkin in appearance.

114928. No. 211. *Gummachi Kayi*. From Bangalore, Mysore, March 5, 1936. A red-brown pumpkin type, common, and said to keep well.

114929. No. 154. *Palong-Wataka*. From the market at Kandy, Ceylon, February 23, 1936.

114930. No. 201. From Bangalore, Mysore, March 5, 1936. An attractive looking, smooth creamy white fruit about 1 foot long, with thick yellow flesh.

114931. CUCURBITA PEPO L. Pumpkin.

No. 38. *Meru*. From the market at Colombo, Ceylon, February 20, 1936. An oblong orange fruit, 18 inches long, striped and mottled with green. Probably introduced from Europe.

114932. CYAMOPSIS TETRAGONOLOB (L.) Taub. Fabaceae. Guar.

No. 86. *Kataranga*, cluster bean. From Teldeniya, near Kandy, Ceylon, February 25, 1936. Pods used as food.

114845 to 115046—Continued.

114933. *CYAMOPSIS TETRAGONOLOBA* (L.) Taub. Fabaceae. Guar.

No. 224. *Gorichikadi*. From Bangalore, Mysore, March 5, 1936. Used both green and dried.

114934. *CYPHOMANDRA BETACEA* (Cav.) Sendt. Solanaceae. Tree-tomato.

No. 1. *Takkali*. From the market at Kandy, Ceylon, February 19, 1936.

For previous introduction and description see 114441.

114935. *CYRTANTHUS INTERMEDIUS* Mast. Amaryllidaceae.

No. 150. From the Botanic Gardens, Haggala, Ceylon, February 28, 1936. Bulbs of an artificial hybrid, *Cyrtanthus-mackenii* × *angustifolius*, about 18 inches high, with strap-shaped leaves and 8 to 10 orange-pink, tubular flowers 2 inches long in an umbel.

114936. *CYRTANTHUS MACKENII* Hook. f. Amaryllidaceae.

No. 149. From the Botanic Gardens, Haggala, Ceylon, February 28, 1936. Bulbs of a species with two to six linear leaves 1 foot long, appearing with the flower stem, which is a foot high, reddish brown at the base, and bears an umbel of 4 to 10 ivory-white tubular flowers 2 inches long. It is native to southern Africa.

For previous introduction see 89645.

114937. *DATURA SVAEOLENS* Humb. and Bonpl. Solanaceae. Angel-trumpet.

No. 135. From the Botanic Gardens, Haggala, Ceylon, February 28, 1936. A handsome plant 15 to 20 feet high, with smooth elliptic leaves, downy beneath; sometimes 300 of the very large, pure-white, sweet-scented pendent flowers are open at once.

For previous introduction see 53919.

114938. *DELONIX REGIA* (Boj.) Raf. Caesalpinaceae. Royal poinciana.

No. 172-B. From Kandy, Ceylon.

For previous introduction see 109208.

114939 to 114948. *DOLICHOS LABLAB* L. Fabaceae. Hyacinth-bean.

114939. No. 69. *Awara kai*, *Awara*. From the market at Kandy, Ceylon, February 23, 1936.

114940. No. 126. *Sudu dambala*. From Katukastota, near Kandy, Ceylon, February 26, 1936.

114941. No. 168. *Kiri dhambula*. From Kekerliwa, Ceylon, March 2, 1936. A vine with purple flowers and pods 30 inches long. Said to be eaten green and as dry beans.

Nos. 114942 to 114946 are bush varieties obtained at the Imperial Agricultural Station, Coimbatore, March 4, 1936.

114942. No. 191. Khaki-colored seeds.

114943. No. 191-A. Black seeds.

114944. No. 191-B. White seeds.

114945. No. 191-C. White seeds.

114946. No. 191-D. Buff seeds.

114845 to 115046—Continued.

114947. No. 215. *Peda chikad kaya*. From Bangalore, Mysore, March 5, 1936. Said to be a climbing sort. Pods and beans both used as food.

114948. No. 245. From Bombay, March 8, 1936, but said to have come from Rangoon. The dry seeds are used as food.

114949. *EXACUM ZEYLANICUM* Roxb. Gentianaceae.

No. 146. From the Botanic Gardens, Haggala, Ceylon, February 28, 1936. An erect East Indian annual 1 foot high, with basal leaves elliptic oblong and a terminal cluster of large, deep-purple flowers with bright-orange stamens.

For previous introduction see 77484.

114950. *FICUS MYSORENSIS* Heyne. Moraceae. Fig.

No. 198. From Bangalore, Mysore, March 5, 1936. A large broadly spreading tree native to the forests of the subtropical Himalayas from Sikkim eastward. The aerial roots are few, embracing the trunk, and the oval leathery leaves, which are prominently veined, are up to 8 inches in length.

For previous introduction see 92952.

114951. *DUCHESNEA INDICA* (Andrews) Focke. Rosaceae. Mock-strawberry.

No. 128. From the Botanic Gardens, Haggala, Ceylon, February 28, 1936.

For previous introduction see 58891.

114952. *FUCHSIA ARBORESCENS* Sims. Onagraceae.

No. 171-D. From the Botanic Gardens, Haggala, Ceylon, February 28, 1936. A shrub or small tree, with large opposite or ternate, oblanceolate or oblanceolate-oblong leaves and dense terminal panicles of pink or purplish flowers about one-half inch long. Native to Mexico.

114953. *FUCHSIA RADICANS* Miers. Onagraceae.

No. 136. From the Botanic Gardens, Haggala, Ceylon, February 28, 1936. A tropical shrub, sometimes climbing, with whorled, elliptic, entire leaves about 2 inches long and few showy scarlet flowers nearly 2 inches long in axillary clusters. Native to Brazil.

114954. *GERBERA* sp. Asteraceae.

No. 160. From the Peradeniya Gardens, Ceylon, March 1, 1936.

114955. *GOSSYPIUM ARBOREUM* L. Malvaceae. Cotton.

No. 167. *Kabupulun*. From Kalawewa, Ceylon, March 2, 1936. Altitude 600 feet. Collected from a plant 10 feet high. The flowers were yellowish and the yield was abundant. Not much cultivated.

For previous introduction see 102894.

114956. *COSMOS CAUDATUS* H. B. K. Asteraceae.

No. 172-G. From Kandy, Ceylon. A perennial herb 1½ to 6 feet high, with bipinnate leaves, the segments linear-lanceolate, and rose-colored flower heads. Native to the West Indies.

114845 to 115046—Continued.

114957. *HIBISCUS SABDARIFFA* L. Malvaceae. Roselle.

No. 52. From the market at Kandy, Ceylon, February 23, 1936. A plant with red calyxes which are made into preserves; the leaves are used as a green vegetable.

For previous introduction see 87463.

114958. *INDIGOFERA* sp. Fabaceae.

No. 172. From Kandy, Ceylon. A plant with very beautiful rose-colored flowers.

114959. *IPOMOEA* sp. Convolvulaceae.

No. 177. From Coimbatore, southern India, March 4, 1936. Said to be a free-flowering morning-glory with large blue flowers which remain open in the hot sun most of the day.

114960. *LAGENARIA LEUCANTHA* (Duchesne) Rusby. Cucurbitaceae. Calabash gourd.

No. 51. *Duya labu*; *sorakai*. From the market at Kandy, Ceylon, February 23, 1936. Fruit light green, bottle shaped, and 2 inches long.

114961. *LANTANA CAMARA* L. Verbenaceae. Common lantana.

No. 131. Collected February 27, 1936, along the Nuwara-Eliya Road, Ceylon, at 4,000 feet altitude. The small heads of orange-red flowers are very attractive.

114962. *LANTANA CAMARA* L. Verbenaceae. Common lantana.

No. 138. From Nuwara-Eliya, Ceylon, February 28, 1936. A form with heads of lovely pink flowers that has become naturalized in Ceylon.

For previous introduction see 103512.

114963. *LUFFA ACUTANGULA* (L.) Roxb. Cucurbitaceae. Singkwa towelgourd.

No. 55. *Vetakala*, *Pikunga*. From the market at Kandy, Ceylon, February 23, 1936. Fruit ridged, green, 10 inches long.

For previous introduction see 103706.

114964. *LUFFA CYLINDRICA* (L.) Roemer. Cucurbitaceae. Suakwa towelgourd.

No. 87. *Sponge gourd*; *Niyavetakola*. From Teldeniya, near Kandy, Ceylon, February 25, 1936. The fruit is eaten fresh as a vegetable and, when ripe, the hard fibrous seed pod is used for scouring pots, etc.

For previous introduction see 103916.

114965 to 114969. *LYCOPERSICON ESCULENTUM* Mill. Solanaceae. Tomato.

114965. No. 75. *Takkali*. From the market at Kandy, Ceylon, February 23, 1936. The irregular fruits are less than 2 inches across.

114966. No. 121. From the market at Suez, Egypt, February 6, 1936. A red fruit $3\frac{1}{2}$ inches long, common in the market.

114967. No. 173. From Coimbatore, March 4, 1936. Round fruits 1 inch in diameter; the plant is said to be very hardy.

114968. No. 207. From a seed store in Bangalore, Mysore, March 5, 1936. A red fruit, 1 inch in diameter, said to be wilt resistant.

114969. No. 237. From Bombay, March 8, 1936. Fruit red, globose, up to $1\frac{1}{2}$ inches in diameter.

114845 to 115046—Continued.

114970 to 114973. *MOMORDICA* spp. Cucurbitaceae.

114970. *MOMORDICA CHARANTIA* L. Balsam-pear.

No. 90. *Karawila*. From Teldeniya, near Kandy, Ceylon, February 25, 1936.

For previous introduction and description see 114448.

114971 and 114972. *MOMORDICA DIOICA* Roxb.

Tumba karawila. From the market at Kandy, Ceylon, February 23, 1936. A tropical climber with an edible tuberous root and small rough yellow fruits 2 to 3 inches long which are eaten as a vegetable. Native to India.

114971. No. 57. 114972. No. 61.

114973. *MOMORDICA CHARANTIA* L. Balsam-pear.

No. 158. *Tita karawila*. From Dumballa, Ceylon, March 1, 1936, at 1,000 feet altitude.

For previous introduction and description see 114970.

114974. *MORAEA IRIDIODES* L. Iridaceae. Iris moraea.

No. 140. From the Hakgala Gardens, Ceylon, February 28, 1936. A south African relative of the iris, which forms large clumps with irislike leaves and flower stalks 3 feet high. The very attractive flowers, like the Japanese iris in form, have blue-purple standards and white falls marked with yellow.

For previous introduction see 67369.

114975. *MORINGA OLEIFERA* Lam. Moringaceae. Horseradish-tree.

No. 226. *Murunga Kaya*. From Bangalore, Mysore, March 5, 1936.

For previous introduction and description see 114449.

114976. *STIZOLOBIUM ATERRIMUM* Piper and Tracy. Fabaceae. Velvetbean.

No. 111. *Wanduru-me* (monkey bean). From Katu Kastota, near Kandy, Ceylon, February 26, 1936. A climber from 20 to 30 feet high; both pods and seeds are used as food.

114977. *DRACAENA* sp. Liliaceae.

No. 172-N. From Kandy, Ceylon. A tropical shrub with ornamental foliage and pinkish-white flowers.

114978. *CASUALIA PUBESCENS* (Willd.) Woodv. and Wood. Nymphaeaceae.

No. 230. *Ollu*. From Kekirawa, Ceylon, March 2, 1936. A waterlily with reniform leaves 8 to 10 inches across, scabrous above, and white flowers, similar to those of *Nymphaea alba*, borne 6 inches above the water. Native to eastern India.

114979. *OCIMUM GRATISSIMUM* L. Menthaceae.

No. 112. *Madurutala*. From Katu Kastota, near Kandy, Ceylon, February 26, 1936. A tropical evergreen shrub up to 8 feet high, with ovate leaves about 3 inches long and racemes of small pale-yellow flowers.

Nos. 114980 to 114982 were collected in the Botanic Gardens, Hakgala, Ceylon, February 28, 1936.

114845 to 115046—Continued.

114980. *OSBECKIA BUXIFOLIA* Arn. Melastomaceae.

No. 147. A small rufous-woolly shrub, with leathery ovate leaves about one-half inch long and royal purple flowers about 1 inch across. Native to Ceylon.

114981. *OSBECKIA RUBICUNDA* Arnott. Melastomaceae.

No. 148. A bushy shrub 4 to 6 feet high, with hairy elliptic leaves about 2 inches long and small clusters of brilliant purplish-crimson flowers.

For previous introduction see 57261.

114982. *OSBECKIA WIGHTIANA* Benth. Melastomaceae.

No. 171-E. A woody perennial about 2 feet high, with elliptic or oblong leaves up to 3½ inches long and small clusters of showy purple flowers. Native to southern India and Ceylon at altitudes up to 5,000 feet.

114983. *PANICUM MILIACEUM* L. Poaceae. Broomcorn millet.

No. 96. *Meneri*. From Teldeniya, near Kandy, Ceylon, February 25, 1936.

For previous introduction see 113364.

114984 to 114986. *PASSIFLORA* spp. Passifloraceae.

114984. *PASSIFLORA FOETIDA HISPIDA* (DC.) Killip.

No. 166. *Olbattu*. From Kalawewa, Sind, March 2, 1936. A trailing vine, hispid throughout, with cordate-trilobate, membranous leaves, small purple flowers, and small edible yellow fruits. Native to northwestern South America.

114985. *PASSIFLORA EDULIS* Sims. Purple granadilla.

No. 110. *Passion fruit*. From Kandy, Ceylon, February 25, 1936.

For previous introduction see 114294.

114986. *PASSIFLORA MIXTA* L. f.

No. 171-F. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936. A vine with thick orbicular-ovate broad leaves about 3 inches long, three-lobed to the middle, and rose-pink flowers about 3 inches across. Native to the Andes.

For previous introduction see 82628.

114987 to 114996. *PHASEOLUS* spp. Fabaceae.

114987 to 114992. *PHASEOLUS LUNATUS* L. Lima bean.

114987. No. 103. *Patura-bonci*, *Potudambala*. From Teldeniya, near Kandy, Ceylon, February 25, 1936.

114988. No. 113. *Ratamurunga* or *Kiridambala*. From Teldeniya, near Kandy, Ceylon, February 26, 1936.

114989. No. 114. *Potudambala*. From Katu Kastota, near Kandy, Ceylon, February 26, 1936.

114990. No. 152. *Potudambala*. From the market at Kandy, Ceylon, February 28, 1936.

114991. No. 220. *Doublebeans*. From Bangalore, Mysore, March 5, 1936.

114845 to 115046—Continued.

114992. No. 242. From the Coimbatore bazar, March 4, 1936.

114993 to 114996. *PHASEOLUS VULGARIS* L. Common bean.

Nos. 114993 to 114995 were from the market in Kandy, Ceylon, February 23, 1936.

114993. No. 68. *Butter bonci*; probably imported.

114994. No. 70. *Murung bonci*.

114995. No. 104. *Bonci*; scarlet beans.

114996. No. 115. *El-dambala*. From Teldeniya, near Kandy, Ceylon, February 26, 1936.

114997. *PHYSALIS PERUVIANA* L. Solanaceae. Peruvian groundcherry.

No. 171-G. *Cape gooseberry*. From the Botanic Gardens, Hakgala, Ceylon, February 23, 1936.

For previous introduction see 103722.

114998. *PISUM SATIVUM* L. Fabaceae. Pea.

No. 214. *Battani*. From Bangalore, Mysore, March 5, 1936. Small compact pods 1½ inches long.

114999. *TIBOUCHINA SEMIDECANDRA* Cogn. Melastomaceae.

No. 137. From Nuwara-Eliya, Ceylon, February 28, 1936. A slender graceful shrub, native to Brazil, 4 to 7 feet high, with rigid ovate-oblong leaves and royal purple flowers borne at the tips of the branches.

115000. *PRUNUS CERASUS* L. Amygdalaceae. Sour cherry.

No. 249. From Bombay, March 10, 1936. Sold as "Persian cherry."

115001. *PRUNUS DOMESTICA* L. Amygdalaceae. Common plum.

No. 250. From Bombay, March 10, 1936. Sold as "Persian plum" and said to be imported from Iran.

115002. *PSOPHOCARPUS TETRAGONOLOBA* (L.) DC. Fabaceae.

No. 49. *Daluk-dambala*. From the market at Kandy, Ceylon, February 23, 1936. Large winged pods, 8 inches long, used as a vegetable.

115003. *PSOPHOCARPUS TETRAGONOLOBA* (L.) DC. Fabaceae.

No. 163. *Daluk-dambala*. From Dumballa, Ceylon, March 1, 1936. Seeds taken from a dry pod.

115004. *RAPHANUS SATIVUS* L. Brassicaceae. Radish.

No. 67-A. *Rabu*; *mulingi*. From the market at Kandy, Ceylon, February 23, 1936. A large white radish, 18 inches long and 2 inches in diameter; both roots and tops are used as food.

115005. *RAPHANUS SATIVUS* L. Brassicaceae. Radish.

No. 213. *Mulangi gaddi*. From Bangalore, Mysore, March 5, 1936. A white radish a foot long, of mild flavor; said to grow the year around. Tops not used for food.

114845 to 115046—Continued.

115006 to 115012. *RUBUS* spp. Rosaceae.115006. *RUBUS LINEATUS* Reinw.

No. 142. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936, at 6,200 feet altitude; grown from wild Ceylon stock for experiment. The fruits are sour and yellow.

115007. *RUBUS NIVEUS* Thunb. Raspberry.

No. 144. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936. A semierect plant 10 feet high, from wild stock. The small purple-rose fruits are woolly and sour. Of possible use to breeders.

115008. *RUBUS NIVEUS* Thunb. Raspberry.

No. 202. From Bangalore, Mysore, March 5, 1936. Fruits of good appearance and flavor; said to fruit freely throughout the year.

115009. *RUBUS PEDUNCULOSUS* Don. Blackberry.

No. 143. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936. A creeping vine, 10 feet long, cultivated from wild stock. The berry is pleasant and of fair size.

115010. *RUBUS MOLUCCANUS* L. Blackberry.

No. 145. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936. A tall growing bramble with attractive foliage and an abundance of sour, purplish fruits; cultivated from wild stock. Probably of no use except for breeding.

115011. *RUBUS ELIPTICUS* J. E. Smith. Yellow Himalayan raspberry.

No. 129. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936. Fruit very small, pea size, and yellow.

115012. *RUBUS PEDUNCULOSUS* Don.

No. 130. Collected in the Botanic Gardens, Hakgala, Ceylon, at 6,500 feet altitude, February 28, 1936.

115013. *SAPINDUS* sp. Sapindaceae.

No. 26. *Penela; bundikota*. From the market at Colombo, Ceylon, February 20, 1936. Used for washing; especially good for woollens.

115014. *SEMECARPUS ANACARDIUM* L. f. Anacardiaceae.

No. 22. *Sen gutta*. From the market at Colombo, Ceylon, February 20, 1936. The juice of this nut, mixed with lime, forms an indelible ink, used for marking clothes.

115015. *SESAMUM ORIENTALE* L. Pedaliaceae. Sesame.

No. 29. *Tallu; ellu*. From the market at Colombo, Ceylon, February 20, 1936. Seeds said to yield a high-grade oil.

115016. *SESBANIA GRANDIFLORA* (L.) Poir. Fabaceae.

No. 153. *Agati*. From the market at Kandy, Ceylon, February 23, 1936. A small tree 20 feet high whose flowers and pinnate leaves are eaten.

114845 to 115046—Continued.

115017 to 115024. *SOLANUM MELONGENA* L. Solanaceae. Eggplant.

115017. No. 47. *Wambatu; katerikai*. From the market at Kandy, Ceylon, February 23, 1936. Fruit purple, 6 inches long.

115018. No. 95. *Wambatu*. Collected near Colombo, Ceylon, February 25, 1936.

115019. No. 164. *Wambatu*. From Dumballa, Ceylon, March 1, 1936. Fruit purple white, the size of a large orange. Said to be the best variety grown in Ceylon.

115020. No. 165. *Wambatu*. From Dumballa, Ceylon, March 1, 1936. Fruit purple white, about a foot long and 2 inches in diameter. Said to be inferior to the round variety (No. 164, P. I. 115019).

115021. No. 178. *Udapi; Katerikai*. From Coimbatore, March 11, 1936. Fruit round, 3½ inches in diameter, with a green mantle over the yellow-green body. There are few seeds in the red flesh, and it is not acid; said to be one of the best varieties and to be peculiar to Udapi where it has been grown for centuries.

115022. No. 183. *Katerikai*. From Coimbatore, March 4, 1936. Fruit many seeded, acid, round, yellow, 2 inches in diameter. Adapted to dry alkaline soil.

115023. No. 209. *Vankaya*. From Bangalore, Mysore, March 5, 1936. Fruit said to be large, round, purple.

115024. No. 222. *Erangere*. From Bangalore, Mysore, March 5, 1936. Fruit said to be green and of superior quality.

115025. *SOLANUM* sp. Solanaceae.

No. 172-O. From Kandy, Ceylon. *Ferol*. Blue and white flowers.

115026 and 115027. *SOLANUM XANTHOCARPUM* Schrad. and Wendl. Solanaceae.

Elabattu. A prickly annual, native to the Tropics of the Old World. Small fruits and leaves eaten as vegetables.

115026. No. 54. 115027. No. 94.

115028 and 115029. *SORGHUM VULGARE* Pers. Poaceae. Sorghum.

Collected at Teldeniya, near Kandy, Ceylon, February 25, 1936. Said to be used as grain.

115028. No. 91. *Teringu*.115029. No. 105. *Kara-iringu*.115030. *STIZOLOBIUM ATERRIMUM* Piper and Tracy. Fabaceae. Velvetbean.

No. 89. From Teldeniya, near Kandy, Ceylon, February 25, 1936. Plant grown for fodder; said to have been introduced from the United States.

115031. *STIZOLOBIUM DEERINGIANUM* Bort. Fabaceae. Deering velvetbean.

No. 109. *Endura*. From Kandy, Ceylon, February 23, 1936.

114845 to 115046—Continued.

115032. *TAMARINDUS INDICA* L. *Caesalpinaceae*.
Tamarind.

No. 124. *Sujambala*. From the market at Kandy, Ceylon, February 27, 1936. Fruit sold dried; used throughout India for chutney.

For previous introduction see 98884.

115033. *ALTERNANTHERA SESSILIS* (L.) R. Br. *Amaranthaceae*.

No. 50. *Mukunuwena*; *Polkurupula*. From Teldeniya, near Kandy, Ceylon, February 25, 1936. An annual native to Australia; naturalized in tropical Asia where it grows as a weed and is used as greens.

115034. *TITHONIA DIVERSIFOLIA* (Hemsl.) A. Gray. *Asteraceae*.

No. 156. *Natasuria*. From Kandy, Ceylon, March 1, 1936. A stout herb 10 feet high, with large yellow flowers, commonly used as a hedge plant.

115035. *TRICHOSANTHES ANGUINA* L. *Cucurbitaceae*.
Snakegourd.

No. 58. *Patola*; *patalunga*. From the market at Kandy, February 23, 1936. Fruit green, 4 feet long. Used as a vegetable.

For previous introduction see 103714.

115036. *TRICHOSANTHES HIMALENSIS* C. B. Clarke. *Cucurbitaceae*.

No. 159. *Gong Kekri*. From Sigiyra, Ceylon, at 500 feet altitude, March 1, 1936. A wild vine, becoming about 10 feet long; with oblong fruits 1 inch long.

115037. *TRITONIA CROCOSMIFLORA* Nicholson. *Iridaceae*.

No. 141. From the Botanic Gardens, Hakgala, Ceylon, February 28, 1936. A plant which resembles a gladiolus, with orange-colored flowers about 2 inches across.

For previous introduction see 103482.

115038 to 115044. *VIGNA* spp. *Fabaceae*.

115038. *VIGNA SESQUIPEDALIS* (L.) Fruwirth. *Asparagus-bean*.

No. 108. *Polon-me* or *diya-mekoral*. From Teldeniya, near Kandy, Ceylon, February 25, 1936. Pods said to be up to 4 feet long and one-half inch wide. Used as a vegetable.

115039 to 115044. *VIGNA SINENSIS* (Turner) Savi. *Cowpea*.

Nos. 115039 to 115042 were collected in the market at Kandy, Ceylon, February 23, 1936.

115039. No. 71. *Mekoral*.

115040. No. 117. *Me*. Pods used as a vegetable.

115041. No. 116. *Li-me*. Pods used as a vegetable.

115042. No. 118. *Nilmorunga*. Pods used as a vegetable.

115043. No. 125. *Diya-Mekoral*. From a village near Kandy, Ceylon, February 27, 1936. Seeds and pods eaten.

115044. No. 208. *Alasandi*. From Bangalore, Mysore, March 5, 1936.

114845 to 115046—Continued.

Both green pods and dried beans used as food.

115045. *VITIS VINIFERA* L. *Vitaceae*.
European grape.

No. 199. From Bangalore, Mysore, March 5, 1936. The sweet blue-black fruits are the size of marbles and much like the Concord in flavor. Said to have been introduced into Mysore over 100 years ago; it grows well, producing two crops yearly. The vine does not stand pruning.

115046. *EUPATORIUM LIGUSTRINUM* DC. *Asteraceae*.

No. 171-C. From the Botanic Gardens, Hakgala, Ceylon, February 23, 1936. An attractive shrub up to 15 feet high, with small oblong leaves and many heads of small white flowers. Native to eastern and southern Mexico.

115047 to 115059.

From the Union of Soviet Socialist Republics. Seeds presented by N. I. Sharapov, at the request of Doctor Sinkayska, Institute of Plant Industry, Leningrad. Received April 23, 1936.

115047 to 115050. *ELBUSINE CORACANA* (L.) Gaertn. *Poaceae*. *African millet*.

115047. No. 6912. From Ethiopia.

115048. No. 8334. Originally from California.

115049. No. 5863. From Ceylon.

115050. No. 5847. Originally from Eritrea.

115051 to 115053. *ERAGROSTIS ABYSSINICA* (Jacq.) Schrad. *Poaceae*. *Teff*.

For previous introduction see 60485.

115051. No. 5778. From Addis Ababa, Ethiopia.

115052. No. 5797. From Ethiopia.

115053. No. 5801. From Ethiopia.

115054. *ERAGROSTIS FOAEIODES* (L.) Beauv. *Poaceae*.

No. 1642.

For previous introduction see 113164.

115055 to 115059. *PENNISSETUM GLAUCUM* (L.) R. Br. *Poaceae*. *Pearl millet*.

115055. No. 8354. Originally from Tunisia.

115056. No. 9437. Originally from Eritrea.

115057. No. 8299. Originally from Arabia.

115058. No. 5880. Originally from Massaua.

115059. No. 7672. Originally from India.

115060 to 115095.

From the Union of Soviet Socialist Republics. Bulbs and seeds presented by Dr. V. P. Alekseev, Chief, Section of Introduction, All-Union Research Institute of Dry Subtropics, Tashkent. Received April 24, 1936.

Unless otherwise stated, the material was received as seeds.

115060 to 115095—Continued.

115060. *ALLIUM CAESIUM* Schrenk. Liliaceae.

No. 1. Bulbs of a lavender-flowered onion, native to Turkistan.

For previous introduction see 73597.

115061. *ALLIUM SUWOROWI* Regel. Liliaceae.

No. 2. A hardy bulbous plant, with very narrow flat leaves up to 16 inches long and hemispherical umbels of fragrant violet-rose flowers. Native to Kirghis Desert, Turkistan.

115062. *ALLIUM TATARICUM* L. f. Liliaceae.

No. 3. An allium with about 6 linear-lanceolate leaves, a stem up to 2 feet high, and a head of many rose or bright purple flowers. Native to southern Russia.

115063 to 115068. *AMYGDALUS* spp. Amygdalaceae.

115063 to 115067. *AMYGDALUS COMMUNIS* L. Almond.

115063. No. 67.

115064. No. 71.

115065. No. 72.

115066. No. 67—A.

115067. No. 68.

115068. *AMYGDALUS SPINOSISSIMA* Bunge.

No. 5. A wild almond, native to Turkistan.

For previous introduction see 108855.

115069. *BERBERIS HETEROPODA* Schrenk. Berberidaceae. Turkistan barberry.

No. 11. A handsome spreading shrub up to 5 feet high, with spines, when present, often 2 inches long and broadly oval, pale blue-green entire leaves an inch or two in length. The fragrant orange flowers are in five- to seven-flowered racemes, and the dark-blue berries are covered with a glaucous bloom. Native to Turkistan.

For previous introduction see 107896.

115070. *CICER FLEXUOSUM* Lipsky. Fabaceae.

No. 13. A decumbent or prostrate legume closely related to *Cicer songarioum*. Native to Turkistan.

115071. *CLEMATIS ORIENTALIS* L. Ranunculaceae. Oriental clematis.

No. 14. An ornamental vine with finely cut leaves and yellow and white flowers. The seeds are borne in terminal clusters, each seed having a fluffy or featherlike appendage. Native to Iran [Persia].

For previous introduction see 89733.

115072. *EREMURUS OLGAE* Regel. Liliaceae.

No. 22. A hardy herbaceous perennial with white flowers, produced in dense racemes. Native to Turkistan.

For previous introduction see 112855.

115073. *EUONYMUS SEMENOVII* Regel and Herd. Celastraceae.

No. 89. A low shrub with lanceolate leaves about 2 inches long and clusters of small yellowish flowers. Allied to *Euonymus europaeus*. Native to Turkistan.

115060 to 115095—Continued.

115074. *FRITILLARIA SEWERZOWI* Regel. Liliaceae.

No. 25. A bulbous plant with numerous ovate to lanceolate leaves up to 4 inches long and a terminal raceme of 5 to 12 purplish-green flowers. Native to Turkistan.

For previous introduction see 107543.

115075. *HERACLEUM* sp. Apiaceae.

No. 26.

115076. *HIPPOPHAE RHAMNOIDES* L. Elaeagnaceae. Common sea-buckthorn.

No. 91. A large-fruited variety with a high sugar content.

For previous introduction see 112736.

115077. *IRIS ORCHIOIDES* Carr. Iridaceae.

No. 28. A Juno iris from the mountains of Turkistan, with about six lanceolate leaves up to 9 inches long and a three- to six-headed stem often a foot high. The bright-yellow falls have purple blotches on each side of the crest.

115078. *IRIS HALOPHILA SOGDIANA* (Bunge) Skeels. Iridaceae.

No. 29. Leaves pale green, 1 to 1½ feet long; the stout terete stem, up to 2 feet high, often bears one or two spicate clusters of pale gray-lilac flowers below the end one. Native to Asia from Asia Minor eastward to Kashmir and Mongolia.

For previous introduction see 28868.

115079 and 115080. *JUGLANS FALLAX* Dode. Juglandaceae.

A walnut, closely related to *Juglans regia*, with very thick-shelled nuts. Native to southern Asia.

115079. No. 70. 115080. No. 70—A.

115081. *MALUS PUMILA* Mill. Malaceae. Paradise apple.

No. 78.

For previous introduction see 107634.

115082. *PAEONIA ANOMALA* L. Ranunculaceae. Peony.

No. 93.

115083. *PAEONIA INTERMEDIA* C. A. Mey. Ranunculaceae. Peony.

No. 38. A peony related to *Paeonia anomala*, with biternate leaves of many pinnatifid segments and large rosy-crimson flowers. Native to Turkistan.

115084 to 115087. *PISTACIA VERA* L. Anacardiaceae. Pistachio.

115084. No. 73. 115086. No. 94—A.

115085. No. 94. 115087. No. 94—B.

115088 and 115089. *PRUNUS CERASIFERA DIVARICATA* (Ledeb.) C. Schneid. Amygdalaceae. Cherry plum.

115088. No. 78. 115089. No. 55.

115090. *PRUNUS PROSTRATA* Labill. Amygdalaceae. Mountain cherry.

No. 56. A low, spreading, drought-resistant, deciduous shrub up to 3 feet high, with sharply serrate, broadly ovate leaves, pubescent beneath, and over an inch long. The rose-colored flowers, over an inch across, are followed by small red,

115060 to 115095—Continued.

nearly sessile fruits. Native to south-western Asia.

For previous introduction see 106803.

115091. AMYGDALUS TRILOBA (Lindl.) Ricker. Amygdalaceae. Flowering almond.

No. 76.

For previous introduction see 45728.

115092. PRUNUS sp. Amygdalaceae.

No. 74.

115093. PYRUS HETEROPHYLLA Regel and Schmalh. Malaceae.

No. 57.

115094. SPIRAEA HYPERICIFOLIA L. Rosaceae. Spirea.

No. 64. A deciduous shrub 5 feet high, with slender arching branches; the cuculate-obovate to obovate-lanceolate leaves, almost sessile, are over an inch long, and the small white flowers are in sessile umbels. Native from eastern Europe to Turkistan.

For previous introduction see 30569.

115095. VICIA TENUIFOLIA Roth. Fabaceae. Vetch.

No. 65.

115096 to 115106. NICOTIANA spp. Solanaceae. Tobacco.

From Peru and Ecuador. Seeds collected by Raymond Stadelman, Bureau of Plant Industry. Received May 7, 1936.

115096. NICOTIANA GLUTINOSA L.

No. 103. *Tabaquillo*. From Olivo, Santulalla, near Lima, Peru, April 10, 1936.

115097. NICOTIANA GLUTINOSA L.

No. 106. From Yicán, near Matucana, 84 kilometers from Lima, Peru, April 10, 1936, at 2,340 meters altitude.

115098 to 115104. NICOTIANA TABACUM L. Common tobacco.

115098. No. 107. From San Mateo, Peru, at 3,100 meters altitude, April 10, 1936. Plants came originally from Chanchamayo, Peru.

115099. No. 108. Uncultivated tobacco collected near the suburbs of Lima, Peru, April 11, 1936.

115100 to 115104. From the Estanco de Tabaco, Provincia del Guayas, Guayaquil, Ecuador, April 4, 1936.

115100. No. 109. *Balzar*.

115101. No. 109-A. *Colimes*.

115102. No. 109-B. *Daile*.

115103. No. 109-C. *Salitre*.

115104. No. 109-D. *Santa Lucia*.

115105. NICOTIANA sp.

No. 104. From Cocachacra, near Lima, Peru, at 1,400 meters altitude, April 10, 1936. A strain with white flowers.

115106. NICOTIANA sp.

No. 105. From Matucana, Peru, at 2,340 meters altitude, April 10, 1936. A strain with white flowers.

115107 to 115128. HUMULUS LUPULUS L. Moraceae. Common hop.

From the Union of Soviet Socialist Republics. Roots presented by the Zhitomir Plant Breeding Station, at the request of H. I. Scharapov, former Head of Department of New Cultures and Introduction, Leningrad. Received April 8, 1936.

115107. Serebrianka. No. 3-10.

115108. Serebrianka. No. 3-13.

115109. Skorospelka. Nos. 4177, 9-18.

115110. Zemshevit. Nos. 4176, 28-6.

115111. Skorospelka. Nos. 4183, 9-19.

115112. Zemshevit. Nos. 4168, 27-23.

115113. Zemshevit. Nos. 4169, 27-18.

115114. Zaatzkii. Nos. 4159, 21-16.

115115. Serebrianka. Nos. 4151, 3-21.

115116. Zaatzkii. Nos. 4164, 22-8.

115117. Zemshevit. Nos. 4170, 28-7.

115118. Zemshevit. Nos. 4175, 27-11.

115119. Skorospelka. Nos. 4180, 8-20.

115120. Skorospelka. Nos. 4154, 3-18.

115121. Zaatzkii. Nos. 4162, 22-5.

115122. Skorospelka. Nos. 4179, 8-17.

115123. Zaatzkii. Nos. 4160, 21-21.

115124. Serebrianka. Nos. 4150, 3-20.

115125. Serebrianka. Nos. 4146, 4-4.

115126. Skorospelka. Nos. 4178, 8-18.

115127. Zemshevit. Nos. 4174, 27-12.

115128. Zemshevit. Nos. 4172, 27-22.

115129. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Germany. Tubers presented by Dr. R. Schick, Kaiser-Wilhelm Institute für Züchtungsforschung, Müncheberg Mark. Received May 9, 1936.

Eierkartoffel.

115130 and 115131.

From the Union of Soviet Socialist Republics. Seeds presented by the Director, Botanic Garden of the Academy of Sciences, Leningrad. Received April 29, 1936.

115130. CYCLAMEN sp. Primulaceae.

115131. ROSA sp. Rosaceae.

115132 to 115139. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Tasmania. Tubers presented by the Department of Agriculture, Launceston. Received May 11, 1936.

Tubers grown at Myrtle Bank, Tasmania.

115132. No. M. B. 18.

115133. No. M. B. 19.

115134. No. M. B. 25.

115135. No. M. B. 27.

115136. No. M. B. 35.

115137. No. M. B. 36.

115138. No. M. B. 41.

115139. No. M. B. 42.

115140. GOSSYPIUM PERUVIANUM Cav.
Malvaceae. Cotton.

From Brazil. Seeds presented by S. Octavio Lamartine de Faria, Ministerio da Agricultura. Received October 2, 1930. Numbered in May 1936.

Moco cotton. Grown at the Experiment Station in Acary, Rio Grande do Norte.

115141 to 115289.

From the Union of Soviet Socialist Republics. Seeds presented by the Director, Botanic Garden, Samara. Received April 28, 1936.

115141. APIUM GRAVEOLENS L. Apiaceae.
Celery.

No. 82.

115142 to 115147. BETA VULGARIS L. Chenopodiaceae.
Common beet.

115142. No. 125.

115143. *Bordo*. No. 126.

115144. *Eclips*. No. 127.

115145. *Egyptetskaja*. No. 128.

115146. *Erfurtskaja*. No. 130.

115147. *Sacharnaya*. No. 129.

115148 to 115152. CAPSICUM ANNUUM L. Solanaceae.
Common redpepper.

115148. *Cardinal*. No. 221.

115149. *Kalinovskiy* (sweet). No. 220.

115150. *Kayenne* (pungent). No. 222.

115151. *Koziy zog* (pungent). No. 223.

115152. *Pomidorovidny* (sweet). No. 224.

115153 to 115160. CITRULLUS VULGARIS Schrad. Cucurbitaceae.
Watermelon.

115153. *Astrachanskiy belokoriy*. No. 287.

115154. *Azninovsky*. (No number.)

115155. *Bogatyry*. No. 288.

115156. *Chanteclair*. No. 290.

115157. *Cormovoy sem viridis*. No. 291.

115158. *Doct Forkass*. No. 292.

115159. *Lubimec chutora*. No. 293.

115160. *Sibirica nigrum*. No. 294.

115161 to 115173. CUCUMIS MELO L. Cucurbitaceae.
Muskmelon.

115161. *Abricos Lesevickogo*. No. 326.

115162. *Alzhirskaja*. No. 327.

115163. *Amerikanka*. No. 328.

115164. *Ananasnaya*. No. 329.

115165. *Cantaloup Arabka*. No. 330.

115166. *Cantaloup prescot*. No. 331.

115167. *Kara-kis*. No. 332.

115168. *Kerczenekaya*. No. 333.

115169. *Ksyl-uruk*. No. 334.

115170. *Nevidimka*. No. 335.

115171. *Persidskaya*. No. 336.

115172. *Tsarine dyon* or *dyori*(?). No. 337.

115173. *Ucz-ksyl*. No. 338.

115141 to 115289—Continued.

115174 and 115175. CUCUMIS SATIVUS L. Cucurbitaceae.
Cucumber.

115174. *Zelenchuk*. No. 339.

115175. No. 340.

115176 to 115188. CUCURBITA spp. Cucurbitaceae.

115176. CUCURBITA FICIFOLIA Bouche.
Alcailota.

No. 342. A melon, native to Ecuador, where it is cultivated extensively and used for food for man as well as stock. The melons average 20 to 30 pounds each; when completely ripe, the shell is very hard, the flesh white, and the seeds black. There are two varieties, the white shelled and the green and white striped.

For previous introduction see 114150.

115177. CUCURBITA PEPO L. Pumpkin.
 No. 344.

115178 to 115180. CUCURBITA MAXIMA Duchesne.
Squash.

115178. *Kubyschka seraya*. No. 340.

115179. *Mindalnaya*. No. 350.

115180. *Stofuntovaya*. No. 255.

115181. CUCURBITA MOSCHATA Duchesne.
Cushaw.

Donskaja perechvatka. No. 395.

115182 to 115187. CUCURBITA PEPO L. Pumpkin.

115182. *Italica*. No. 346.

115183. *Kabaczoskie graczestkie*. No. 348.

115184. *Mosoleevskaja*. No. 351.

115185. *Ovalnajo*. No. 352.

115186. *Patisson*. No. 353.

115187. *Scorospelka*. No. 354.

115188. CUCURBITA sp.

Received under the name "amantia," for which a place of publication has not been found.

115189 to 115191. LACTUCA SATIVA L. Cichoriaceae.
Garden lettuce.

115189. No. 552. *Fol aurea*.

115190. No. 393. *Napumsk*.

115191. No. 394. *Steinkopf*.

115192. LACTUCA SERRIOLA L. Cichoriaceae.
Prickly lettuce.

No. 396.

For previous introduction see 114535.

115193. LALLEMANTIA IBERICA (Bieb.) Fisch. and Mey. Menthaceae.

No. 558.

For previous introduction see 114610.

115194 to 115226. LYCOPERSICON ESCULENTUM Mill. Solanaceae.
Tomato.

115194. No. 449. *Alice Roosevelt*.

115195. No. 627. *Best of All*.

115196. No. 546-C. *Budenovka*.

115197. No. 478. *Cerasiformis*.

115141 to 115289—Continued.

115198. No. 469. *Dwarf*.
 115199. No. 457. *Ficarazzi*.
 115200. No. 635. *First Borgesse*.
 115201. No. 634. *First Early*.
 115202. No. 639. *Italica*.
 115203. No. 636. *Jaune grosse*.
 115204. No. 546-C. *John Baer*.
 115205. No. 546. *Yuwel*.
 115206. No. 641. *Krasavica*.
 115207. No. 642. *Luczschiy is Krasaviy*.
 115208. No. 644. *Merveille de Italica*.
 115209. No. 546-G. *Merveille des marches*.
 115210. No. 645. *Metschles*.
 115211. No. 646. *Non plus ultra*.
 115212. No. 647. *Piedro*.
 115213. No. 476. *Pieretta*.
 115214. No. 649. *Pimpinellifolium*.
 115215. No. 650. *Pomme rouge*.
 115216. No. 546-K. *Ponderosa*.
 115217. No. 652. *Precoce de Gall*.
 115218. No. 653. *Reed cherry*.
 115219. No. 546-Q. *Reine des Hatives*.
 115220. No. 546-M. *Roi Humbert*.
 115221. No. 460. *Sparø Erliana*.
 15222. No. 546-O. *Sparø Gribowsky*.
 115223. No. 659. *Surprise*.
 115224. No. 468. *Triumph*.
 115225. No. 637. *Yellow cherry*.
 115226. No. 1056.
- 115227 to 115260. PHASEOLUS VULGARIS L.
 Fabaceae. Common bean.
 115227. No. 596. *Angliyskayo zhaltaya*.
 115228. No. 592. *Arabaka spazrhovoya*.
 115229. No. 614. *Berlinskaya*.
 115230. No. 591. *Bomba ochryanaya*.
 115231. No. 814. *Charkovskaja pestraja*.
 115232. No. 815. *Cyganka*.
 115233. No. 816. *Ellipticzeskaja pestraja*.
 115234. No. 817. *Gloire de vitry rouge*.
 115235. No. 818. *Gollandskeja*.
 115236. No. 606. *Jaune de la chine*.
 115237. No. 616. *Improved golden wax*.
 115238. No. 821. *Koricznevajae Rjasan*.
 115239. No. 822. *Lopata*.
 115240. No. 823. *Mandzhurskaja sem rubre*.
 115241. No. 605. *Moskovskaya rannaya*.
 115242. No. 615. *Nesravuennayo*.
 115243. No. 597. *Noir de l'Hermitage*.
 115244. No. 599. *Ochryananka*.
 115245. No. 828. *Pestraja*.

115141 to 115289—Continued.

115246. No. 829. *Prjaniozki*.
 115247. No. 830. *Radosty chosjayki*.
 115248. No. 613. *Risovaya*.
 115249. No. 832. *Rond-blanc*.
 115250. No. 619. *Rosovo-pestraja*.
 115251. No. 611. *Rosovo-zolotistayo*.
 115252. No. 617. *Rostovskayo belaya*.
 115253. No. 836. *Sacharnaja*.
 115254. No. 837. *Sem alba e Gallia*.
 115255. No. 601. *Sem sulphuree e Tauria*.
 115256. No. 596. *Sparzhevaya shokoladnaya*.
 115257. No. 620. *Triumph*.
 115258. No. 622. *Wilhelm*.
 115259. No. 588. *Zolotoy dozhdy*.
 115260. No. 843. *Zolotaja gora*.
- 115261 to 115268. PISUM SATIVUM L. Fabaceae. **Pea**.
 115261. No. 872. *Konjek-gorbunok*.
 115262. No. 874. *Martonsky*.
 115263. No. 873. *Mergeyma*.
 115264. No. 875. *Richlik*.
 115265. No. 880. *Thebaicum*.
 115266. No. 648. *Tykvoviy*.
 115267. No. 878. *Victoria rosea*.
 115268. No. 877. *Wachs Schwert grosse*.
115269. PISUM sp. Fabaceae.
 No. 879. From Morocco.
- 115270 to 115279. RHEUM spp. Polygonaceae. **Rhubarb**.
 115270. RHEUM sp.
 No. 700. Received under the name "atlanticum," for which a place of publication has not been found.
 115271. RHEUM COMPACTUM L.
 No. 943.
 For previous introduction see 21764.
 115272. RHEUM AUSTRALE Don.
 No. 944.
 115273. RHEUM FRANZENBACHII Muentert.
 No. 945.
 For previous introduction see 114595.
 115274. RHEUM PALMATUM L.
Sorrel rhubarb.
 No. 976.
 For previous introduction see 114654.
 115275. RHEUM RHAPONTICUM L.
Common rhubarb.
 No. 947.
 115276. RHEUM RIBES L.
 No. 948. A herbaceous perennial up to 5 feet high, with large cordate to reniform leaves and panicles of small blood-red, narrow-winged fruits. Native to the mountains of southwestern Asia.
 For previous introduction see 114176.

115141 to 115289—Continued.

115277. *RHEUM WEBBIANUM* Royle.

No. 696. A stout perennial up to 6 feet high, native to the Himalayas at altitudes between 10,000 and 14,000 feet.

For previous introduction see 110629.

115278. *RHEUM* sp.

No. 949. *Victoria*, a horticultural variety.

115279. *RHEUM* sp.

No. 695.

115280 to 115289. *SOLANUM* spp. Solanaceae.115280 and 115281. *SOLANUM DULCAMARA* L. Bitter nightshade.

115280. No. 1047.

115281. No. 1048.

115282. *SOLANUM GRACILE* Otto.

No. 1049.

For previous introduction see 110813.

115283. *SOLANUM LUTEUM* Mill.

No. 1051. A hairy herb with branching stems over 2 feet high, woolly ovate leaves, and umbels of white flowers followed by small yellow berries. Native to temperate South America.

For previous introduction see 110662.

115284. *SOLANUM MELONGENA* L. Eggplant.

No. 1052.

115285. *SOLANUM MINIATUM* Bernh.

No. 1057. An annual, native to southern Europe, with unarmed stems over a foot high, ovate glabrous leaves, and racemes of small white flowers.

For previous introduction see 110663.

115286 and 115287. *SOLANUM NIGRUM* L. Black nightshade.

115286. No. 1053.

115287. No. 1054.

115288. *SOLANUM PYRACANTHUM* Jacq. Nightshade.

No. 1055. A prickly evergreen bush about 3 feet high, with blue flowers in racemes sometimes 6 inches long. The bright-red round fruits are edible. Probably native to tropical Africa.

For previous introduction see 91552.

115289. *SOLANUM QUITOENSE* Lam. Naranjilla.

No. 1050. An ornamental shrub about 3 feet high; the oblong-ovate, deep-green leaves are soft-hairy and the large white flowers are in short axillary clusters. The aromatic orange-colored juicy fruits are nearly spherical and about 2 inches in diameter; they are used in the preparation of refreshing drinks. The plant is native to the mountains of Peru.

For previous introduction see 89548.

115290 to 115298. *AGROPYRON* spp. Grass.

From Canada. Seeds presented by J. R. Fryer, University of Alberta, Edmonton. Received April 29, 1936.

115290 to 115298—Continued.

115290. *AGROPYRON ALBICANS* Scribn. and Smith.115291. *AGROPYRON CRISTATUM* (L.) Gaertn. Crested wheatgrass.115292. *AGROPYRON DASYSTACHYUM* (Hook.) Scribn. Thickspike wheatgrass.

A perennial grass up to about 2 feet high, with creeping rhizomes. Native to Canada.

115293. *AGROPYRON ELONGATUM* (Host) Beauv.

A drought-resistant grass.

For previous introduction see 98526.

115294. *AGROPYRON INTERMEDIUM* (Host) Beauv.

For previous introduction see 114205.

115295 and 115296. *AGROPYRON SMITHII* Rydb.

For previous introduction see 21866.

115297 and 115298. *AGROPYRON SUBSECUNDUM* (Link) Hitchc. Bearded wheatgrass.

115299 to 115315.

From the Union of Soviet Socialist Republics. Seeds presented by the Institute of Plant Industry, Leningrad. Received April 27, 1936.

115299 to 115312. *ONOBRYCHIS* spp. Fabaceae.115299. *ONOBRYCHIS ARENARIA* DC.

No. 14377. From the Vesely Podol Breeding Station, Ukraina.

Nos. 115300 to 115308 were received under the name "antasiatica," for which a place of publication has not been found.

115300. *ONOBRYCHIS* sp.

No. 19516. From the Plant Breeding Station, Azerbaijan.

115301. *ONOBRYCHIS* sp.

No. 16898. From the Plant Breeding Station, Azerbaijan.

115302. *ONOBRYCHIS* sp.

No. 17552. From the Plant Breeding Station Azerbaijan.

115303. *ONOBRYCHIS* sp.

No. 18253. From the Dasian District, Armenia.

115304. *ONOBRYCHIS* sp.

No. 19515. From the Azerbaijan Plant-Breeding Station.

115305. *ONOBRYCHIS* sp.

No. 19517. Sta. Var. No. 2. From the Plant-Breeding Station, Azerbaijan; originally from Akhalkalikian, Sainfain, Georgia.

115306. *ONOBRYCHIS* sp.

No. 19518. From the Plant-Breeding Station, Azerbaijan.

115307. *ONOBRYCHIS* sp.

No. 19123. From the District of Sisian, Armenia.

115299 to 115315—Continued.

115308. ONOBRYCHIS sp.

No. 19522. From the Plant-Breeding Station, Azerbaijan.

115309. ONOBRYCHIS OXYTROIPOIDES Bunge.

No. 15150. From Armenia. A stemless herbaceous perennial with a woody spreading rhizome and compound leaves 2 to 3 inches long. Native to Asia Minor.

For previous introduction see 108662.

115310. ONOBRYCHIS PETRAEA Desv.

No. 13406. From Azerbaijan, Shera-dil. An erect perennial with pinnate leaves, the leaflets oblong-lanceolate. Native to the Caucasus region.

For previous introduction see 108663.

115311 and 115312. ONOBRYCHIS VULGARIS Hill. Sanfoin.

From the Uladovo-Lulenez Plant Breeding Station. Variety 4/5.

115311. No. 19571.

115312. No. 19571-A.

115313. PHELEUM PHELOIDES (L.) Karst. Poaceae. Timothy.

No. K-15098.

For previous introduction see 111706.

115314. POA PRATENSIS L. Poaceae. Kentucky bluegrass.

No. K-15772.

115315. POA TIBETICA Munro. Poaceae. Bluegrass.

No. K-14661. From the Altai region. A tall stout grass 1 to 2 feet high, with firm, linear, acute leaves about 8 inches long. Native to northwestern India at altitudes of 9,000 to 16,000 feet.

For previous introduction see 108534.

115316. VIOLA sp. Myristicaceae.

From the Canal Zone. Seeds presented by J. E. Higgins, Director, Canal Zone Experiment Gardens, Summit. Received May 20, 1936.

115317 to 115319.

From the Union of South Africa. Seeds purchased from the Winton Nurseries, Bonnie Vale. Received May 6, 1936.

115317. BRUNSVIGIA GIGANTEA Helst. Amaryllidaceae.

A brunsvigia with about four tongue-shaped leaves 3 to 5 inches broad and about 1 foot long. The 20 to 30 bright-red flowers, about 2 inches long, are in an umbel on a scape a foot or more high. Native to South Africa.

115318. BRUNSVIGIA JOSEPHINAE (Red.) Ker. Amaryllidaceae.

A South African bulbous plant 2 to 3 feet high, with 8 or 10 thick closely ribbed, strap-shaped leaves and large bright-red flowers.

For previous introduction see 61245.

115319. BUPHANE DISTICHA (L. f.) Herbert. Amaryllidaceae.

A South African plant with a very large bulb up to a foot in diameter, which

115317 to 115319—Continued.

grows half out of the ground, protected by a multitude of papery coats. The stout scape, 6 inches to 1 foot high, bears a dense umbel of red flowers, and the thick distichous leaves, which appear late, are strap-shaped and 1 to 2 feet long.

For previous introduction see 108292.

115320 to 115416.

From the Union of Soviet Socialist Republics. Seeds presented by the Institute of Plant Industry, Lenin Academy of Agricultural Sciences, Leningrad. Received May 25, 1936.

115320 to 115322. AGROPYRON ELONGATUM (Host) Beauv. Poaceae.

A drought-resistant grass.

For previous introduction see 115293.

115320. No. 815. From Kazakstan.

115321. No. 575. K-15102.

115322. No. 810. From Saratov.

115323. AGROPYRON JUNCEUM (L.) Beauv. Poaceae.

No. 709. From Pamir, Turkistan.

For previous introduction see 88715.

115324. AGROPYRON sp. Poaceae.

No. 900. From Turkmenistan.

115325. AGROSTIS ALBA L. Poaceae.

No. K-15067. From eastern Kazakstan.

115326. AGROSTIS ALBA L. Poaceae.

No. K-16086.

From the Mamont region.

115327. ALOPECURUS PRATENSIS L. Poaceae. Meadow foxtail.

No. K-15095. From Gorki Province.

For previous introduction see 111514.

115328. POA PALUSTRIS L. Poaceae. Bluegrass.

No. K-15094. From Gorki Province.

115329 to 115344. BROMUS spp. Poaceae. Bromegrass.

115329 to 115338. BROMUS INERMIS Leyss.

115329. No. K-9792.

115330. No. K-11854.

115331. No. K-14590.

115332. No. K-14591.

115333. No. K-14593.

115334. No. K-15016.

115335. No. K-15786.

115336. No. K-15899.

115337. No. K-16081.

115338. No. K-17252.

115339. BROMUS TECTORUM GLABRATUS Spenner.

No. K-14925.

For previous introduction see 106427.

115340 to 115342. BROMUS VARIEGATUS Bieb.

115340. No. K-14958.

115320 to 115416—Continued.

115341. No. K-16080. From Armenia.
115342. No. K-15204. From Armenia.
115343. *BROMUS* sp.
No. K-15029. From the Ukraine.
115344. *BROMUS* sp.
No. K-9760.
- 115345 to 115349. *DACTYLIS GLOMERATA* L.
Poaceae. Orchard grass.
115345. No. K-11837. From northern Caucasus.
115346. No. K-11859. From northern Kazakhstan.
115347. No. K-11971. From Armenia.
115348. No. K-15270. From eastern Kazakhstan.
115349. No. K-15756. From west Siberia.
- 115350 to 115358. *FESTUCA* spp. Poaceae.
Fescue.
- 115350 to 115355. *FESTUCA ELATOR* L.
Meadow fescue.
115350. No. K-14964. From Armenia.
115351. No. K-14966. From Armenia.
115352. No. K-14967. From Armenia.
115353. No. K-15079.
115354. No. K-15819. From eastern Kayakota.
115355. No. K-17726. From western Siberia.
- 115356 to 115358. *FESTUCA OVINA* SULCATA Hack.
For previous introduction see 111975.
115356. No. K-12257. From south Kayakota.
115357. No. K-14274. From the Middle Volga region.
115358. No. K-16221.
115359. *FESTUCA RUBRA* L. Red fescue.
No. K-12900.
- 115360 to 115391. *MEDICAGO* spp. Fabaceae.
Medick.
- 115360 to 115367. *MEDICAGO FALCATA* L.
Yellow-flowered alfalfa.
115360. No. K-195.
115361. No. K-143.
115362. No. K-201.
115363. No. K-210.
115364. No. K-216.
115365. No. K-261.
115366. No. K-329.
115367. No. K-431.
- 115368 to 115386. *MEDICAGO SATIVA* L.
Alfalfa.
115368. No. K-1244.
115369. No. K-1453.
115370. No. K-1484.

115320 to 115416—Continued.

115371. No. K-1646.
115372. No. K-1961.
115373. No. K-1836.
115374. No. K-1282.
115375. No. K-2116.
115376. No. K-1489.
115377. No. K-1530.
115378. No. K-1830.
115379. No. K-1812.
115380. No. K-1450.
115381. No. K-1460.
115382. No. K-1887.
115383. No. K-2113.
115384. No. K-2114.
115385. No. K-1458.
115386. No. K-1404.
115387. *MEDICAGO*.
No. K-205. A hybrid alfalfa.
- 115388 to 115391. *MEDICAGO SATIVA* L.
Alfalfa.
115388. No. K-1851.
115389. No. K-1839.
115390. No. K-1627.
115391. No. K-1545.
- 115392 to 115396. *MELILOTUS* spp. Fabaceae.
Sweetclover.
- 115392 to 115394. *MELILOTUS ALBA* Desr.
White sweetclover.
115392. No. K-9654/94.
115393. No. K-10354.
115394. No. K-10178.
115395. *MELILOTUS DENTATA* (Waldst. and Kit.) Pers.
No. K-456. From west Siberia.
115396. *MELILOTUS OFFICINALIS* (L.) Lam.
No. K-2207. From the Amur region.
- 115397 to 115399. *ONOBRYCHIS* spp. Fabaceae.
115397. *ONOBRYCHIS ARENARIA* DC.
No. 14377. From the Veselij Podol Plant Breeding Station.
For previous introduction see 111695.
115398. *ONOBRYCHIS VULGARIS* Hill.
Sanfoin.
No. 17154. Originally from Armenia.
115399. *ONOBRYCHIS* sp.
No. 19515. From Azerbaijan. Received under the name "antasiatica," for which a place of publication has not been found.
- 115400 to 115405. *PHLEUM* spp. Poaceae.
Timothy.
- 115400 and 115401. *PHLEUM PHLEROIDES* (L.) Karst.
115400. No. K-14930.
115401. No. K-15098. From west Siberia.

115320 to 115416—Continued.

- 115402 to 115405. *PHLEUM PRATENSE* L.
 115402. No. K-15309. From Armenia.
 115403. No. K-15776. Originally from the Altai region.
 115404. No. K-9747.
 115405. No. K-15772. From west Siberia.

115406 to 115416. *TRIFOLIUM* spp. Fabaceae. Clover.

115406. *TRIFOLIUM HYBRIDUM* L. Alsike clover.
 No. R-17749. From the Ural region.
 115407 to 115414. *TRIFOLIUM PRATENSE* L. Red clover.
 115407. No. R-2724. From the Tambov region.
 115408. No. R-9726. From the Ural region.
 115409. No. R-9992. From the Che-reponety region.
 115410. No. K-16186. From Trans-ven.
 115411. No. K-18969. From west Siberia.
 115412. No. K-1914. From west Siberia.
 115413. No. K-18970. From west Siberia.
 115414. No. R-19556. From Leningrad Province.
 115415 and 115416. *TRIFOLIUM REPENS* L. White clover.
 115415. No. K-19554.
 115416. No. R-15670. From Kazakhstan.

115417 to 115427.

From Belgium. Seeds presented by the Director, Botanic Garden, Brussels. Received April 29, 1936.

115417. *ASTRAGALUS CICER* L. Fabaceae.
 A European perennial with prostrate or ascending stems.
 For previous introduction see 66515.
 115418 to 115424. *DELPHINIUM* spp. Ranunculaceae. Larkspur.
 115418. *DELPHINIUM BICORNUTUM* Hemsli.
 A branching delphinium about 3 feet high, with five-parted leaves and blue flowers with spurs sometimes two-horned. Native to Mexico.
 115419. *DELPHINIUM BRUNONIANUM* Royle.
 A perennial larkspur a foot or less high, with five-parted leaves, the lobes sharply cut or toothed. Native to western Tibet at 14,000 feet altitude.
 For previous introduction see 104950.
 115420. *DELPHINIUM CARDIOPETALUM* DC.
 An annual, blue-flowered larkspur closely related to *Delphinium halteratum*. Native to the Mediterranean region.

115417 to 115427—Continued.

115421. *DELPHINIUM MAACKIANUM* Regel.
 For previous introduction and description see 114643.
 115422. *DELPHINIUM PENARDI* Huth.
 115423. *DELPHINIUM TATSIIENENSE* Franch.
 For previous introduction and description see 114506.
 115424. *DELPHINIUM VILLOSUM* Stev.
 A perennial delphinium with stems about 3 feet high and lax racemes of blue flowers. It is allied to *Delphinium elatum*. Native to southeastern Europe and western Asia.
 115425. *RHEUM TETRAGONOPUS* Mart. Polygonaceae.
 115426. *RHEUM UNDULATUM* L. Polygonaceae.
 115427. *SPINACIA OLERACEA* L. Chenopodiaceae. Common spinach.

115428 to 115525.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received April 29, 1936.

- 115428 to 115430. *ALLIUM CEPA* L. Liliaceae. Onion.
 115428. No. 297. *Piaz.* From Poona, March 16, 1936. A flat red onion, 3 inches in diameter. Presented by the principal of the Poona Agricultural College.
 115429. No. 298. *Piaz.* From Poona, March 16, 1936. A flat white onion 3 inches in diameter. Presented by the principal of the Poona Agricultural College.
 115430. No. 299. *Piaz.* From Poona, March 16, 1936. A red onion, presented by a farmer.
 115431. *BETA VULGARIS* L. Chenopodiaceae. Common beet.
 No. 308. *Palak.* A potherb, said to be native. Presented by the principal of the Poona Agricultural College.
 115432. *BETA VULGARIS* L. Chenopodiaceae. Common beet.
 No. 325. *Palak.* March 16, 1936. A potherb, native variety.
 115433 to 115436. *CAJANUS INDICUS* Spreng. Fabaceae. Pigeon-pea.
 Nos. 115433 to 115435 were collected at Poona, March 16, 1936. *Tur.* An important dry-soil crop; used as split peas.
 115433. No. 290.
 115434. No. 300.
 115435. No. 301.
 115436. No. 118-A. *Raba fora.* From near Kandy, Ceylon. February 26, 1936. The leaves are eaten.

115437 to 115443. *CAPSICUM ANNUUM* L. Solanaceae. Common redpepper.

From Poona, March 16, 1936. Presented by Dr. G. S. Cheema, Chief Horticulturist, Bombay Government. Strains of redpeppers that have been bred from the local forms.

115428 to 115525—Continued.

115437. No. 322. A long, thin-skinned variety.
115438. No. 322-A. A thick-skinned variety.
115439. No. 322-B. *Hungarian yellow*; a vegetable type.
115440. No. 322-C. *Ruby King*; a vegetable type.
115441. No. 322-D. *Donna kai* of Darwar; a vegetable type.
115442. No. 322-E. Local *Deccan*.
115443. No. 322-F. Short, thick, and very pungent.
115444. *CARTHAMUS TINCTORIUS* L. Asteraceae. *Safflower*.
No. 293. *Kardi*. Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College. Used for oil and dye.
For previous introduction see 99340.
115445. *CHENOPODIUM ALBUM* L. Chenopodiaceae.
No. 307. *Chandenbatwa*. Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College. The leaves are used as a potherb throughout the year.
For previous introduction see 97718.
115446. *CHENOPODIUM ALBUM* L. Chenopodiaceae.
No. 279. *Chakvat*. From Poona, March 15, 1936. Much esteemed as a potherb.
- 115447 to 115450. *CICER ARIETINUM* L. Fabaceae. *Chickpea*.
Nos. 115447 to 115449 were collected at Poona, March 16, 1936. *Ohama*. Presented by the principal of the Poona Agricultural College. An important dry ground crop. The beans are used in a variety of ways, even sold roasted as peanuts.
115447. No. 303. 115449. No. 305.
115448. No. 304.
115450. No. 252. *Kabula challa*. From Bombay, March 10, 1936. Said to be imported from Iran [Persia].
115451. *CITRULLUS VULGARIS* Schrad. Cucurbitaceae. *Watermelon*.
No. 271. *Tinda* or *delpasand*. From Poona, March 15, 1936. Variety *Fistulosus*. A form with thicker stems, sparingly lobed leaves, and long, somewhat hispid hairs. The smooth globose fruits, 3 inches in diameter, are sold green and are much esteemed as a vegetable, especially in the Punjab.
- 115452 to 115459. *CUCUMIS MELO* L. Cucurbitaceae. *Muskmelon*.
115452. No. 182. *Weleri polam*. From Coimbatore, March 4, 1936. An elongate, cylindrical melon about 18 inches long with rounded ends, yellowish rind slightly netted, and fragrant, mealy, pale salmon flesh of little flavor.
115453. No. 231. From the Tunghabdra River district, Mysore, March 6, 1936, at 1,200 feet altitude. A compressed fruit 6 inches long by 8 inches in diameter, netted, creamy white outside with firm, salmon-col-

115428 to 115525—Continued.

- ored insipid flesh which will not rot, but will shrivel instead.
115454. No. 233. From Bombay, March 8, 1936. A well-netted, golden, elongated fruit 12 inches long, somewhat pointed at the ends. The thick, white, firm flesh has a honeydew flavor and keeps remarkably well with no tendency to rot.
115455. No. 234. Bombay, March 8, 1936. A rare type. The fruits are subglobose, 6 inches long, pale cream throughout, with a trace of netting on the outside, and insipid flesh.
115456. No. 235. From Bombay, March 8, 1936. A rare type with compressed fruit, 6 inches long by 8 inches in diameter, smooth, marbled green and yellow. The fragrant green flesh changes to salmon color around the seed cavity and has a distinctive flavor.
115457. No. 236. From Bombay, March 8, 1936. From the market. A nearly smooth yellow fruit with a few green marks, about the size and shape of a large grapefruit. The pale-yellow flesh is firm, fragrant, and sometimes very good. It keeps well.
115458. No. 342. *Pineapple*. From Poona, March 16, 1936. A melon with green, fragrant flesh which has been selected from local strains.
115459. No. 343. *Japanese mæed*. From Poona, March 16, 1936. A trade name used by the local seedsmen. The fruit is said to be of good quality.
115460. *CUCUMIS SATIVUS* L. Cucurbitaceae. *Cucumber*.
No. 326. *Ktra*. From Poona, March 16, 1936. Fruit said to be 6 inches long, with white flesh; eaten fresh.
115461. *CUCUMIS SATIVUS* L. Cucurbitaceae. *Cucumber*.
No. 327. *Kakri*. From Poona, March 16, 1936. When ripe, the golden-brown fruit is 1 foot long.
- 115462 to 115464. *CYAMOPSIS TETRAGONOLOBA* (L.) Taub. Fabaceae. *Guar*.
From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College.
For previous introduction see 114932.
115462. No. 314. 115464. No. 336.
115463. No. 315.
115465. *DAUCUS CAROTA* L. Apiaceae. *Carrot*.
No. 332. *Gajas*. March 16, 1936. From Poona. A pink carrot 6 inches long and over 2 inches across the top, said to grow the year round. Winter-grown specimens are tender and sweet.
- 115466 and 115467. *DOLICHOS BIFLORUS* L. Fabaceae. *Twinflower dolichos*.
From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College. The green pods are used as food and the dry beans as fodder.
115466. No. 312. *Kutti*.
115467. No. 313. *Kutti*; a different strain.

115428 to 115525—Continued.

- 115466 to 115471. *DOLICHOS LABLAB* L. Fabaceae. **Hyacinth-bean.**
115468. No. 276. *Paota* or *surati wal.* From Poona, March 15, 1936. The green pods and split dry seeds are eaten. Also used as a fodder plant.
115469. No. 277. *Karwal.* From Poona, March 15, 1936. The dry beans are used as food. The plant is used as fodder and green manure.
115470. No. 311. *Kadaw wal.* From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College.
115471. No. 338. *Walwor.* From Poona, March 16, 1936. The pods are esteemed.
115472. *ELAEAGNUS* sp. **Elaeagnaceae.**
- No. 345. From Poona, March 16, 1936. A wild shrub about 6 feet high; the sour-sweet, orange-pink fruits are sold in the market.
115473. *GOSSYPIUM ARBOREUM* L. **Malvaceae.** **Cotton.**
- No. 335. Poona, March 16, 1936. Seeds from young plants 3 feet high, flowers mahogany colored; not widely cultivated.
115474. *GUIZOTIA ABYSSINICA* (L. f.) Cass. **Asteraceae.**
- No. 310. *Karala.* March 16, 1936. The seeds contain from 40 to 43 percent of oil which is used for various household uses. Presented by the principal of the Poona Agricultural College.
115475. *Sesbania aegyptiaca* Poir. **Fabaceae.**
- No. 281. Poona, March 15, 1936. An attractive small tree with pods 6 inches long. Found in dry situations.
115476. *LACTUCA SATIVA* L. **Cichoriaceae.** **Garden lettuce.**
- No. 306. From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College. Said to be naturalized from imported seed.
115477. *LATHYRUS SATIVUS* L. **Fabaceae.** **Bitter vetch.**
- No. 302. *Lakh.* From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College. The dry beans are used as food.
115478. *LENS ESCULENTA* Moench. **Fabaceae.** **Lentil.**
- No. 291. *Masur.* Poona, March 16, 1936. Used as cattle feed and for green manure.
115479. *LYCOPERSICON ESCULENTUM* Mill. **Solanaceae.** **Tomato.**
- No. 309. From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College. Said to be naturalized.
115480. *MEDICAGO SATIVA* L. **Fabaceae.** **Alfalfa.**
- No. 333. *Desi ghas.* "Native grass" from Kathiawar. From Poona, March 16, 1936. Grown as an annual for fodder.

115428 to 115525—Continued.

115481. *MEDICAGO SATIVA* L. **Fabaceae.** **Alfalfa.**
- No. 334. *Desi ghas.* From Poona, March 16, 1936. A local alfalfa which lasts 3 years and can be cut 10 or 12 times a year; yields 15 tons of hay per acre.
115482. *MIMOSA* sp. **Mimosaceae.**
- No. 280. *Shing.* From Poona, March 15, 1936. An attractive shrub 10 feet high, found in dry situations. The seeds are said to be used for ink.
115483. *MORINGA OLEIFERA* Lam. **Moringaceae.** **Horseradish-tree.**
- For previous introduction and description see 114975.
- 115484 to 115492. *PHASEOLUS* spp. **Fabaceae.** **Bean.**
115484. *PHASEOLUS ACONITIFOLIUS* Jacq. **Moth bean.**
- No. 273. *Matki.* From Poona, March 15, 1936. A dry-soil plant whose pods are eaten green and the dry seeds used as "split peas."
- 115485 and 115486. *PHASEOLUS AUREUS* Roxb. **Mung bean.**
- From Poona, March 16, 1936. One of the best varieties. Both the green pods and the dry beans are used as food, and the plant is used as fodder.
115485. No. 289. 115486. No. 272.
- 115487 to 115489. *PHASEOLUS LUNATUS* L. **Lima bean.**
- From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College.
115487. No. 294.
115488. No. 295. *Doublebeans.*
115489. No. 296. *Rangoon-bean.*
115490. *PHASEOLUS MUNGO* L. **Urd.**
- No. 275. *Udi.* From Poona, March 15, 1936. The green pods and dry beans are used as food; the plant is used as fodder. From the flour a favorite wafer is made.
- For previous introduction see 101581.
- 115491 and 115492. *PHASEOLUS VULGARIS* L. **Common bean.**
- From Poona, March 15, 1936.
115491. No. 269. *Giaora.* Beans eaten stewed.
115492. No. 274. *Sharaun guara.* Both green pods and dry beans are eaten as food.
115493. *PISUM SATIVUM* L. **Fabaceae.** **Pea.**
- No. 346. *Watana.* From Bombay, March 17, 1936. Seeds used as food and as fodder.
115494. *PISUM SATIVUM* L. **Fabaceae.** **Pea.**
- No. 292. *Watana.* From Poona, March 16, 1936. Both green and dried beans are eaten as food, and the plant is used as fodder.

115428 to 115525—Continued.

115495 to 115497. *RAPHANUS SATIVUS* L.
Brassicaceae. Radish.

From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College.

115495. No. 328. *Magri*. The seed pods, up to 2 feet long, are used as a vegetable.

115496. No. 329. *Magri*. The seed pods, up to 2 feet long, are used as a vegetable.

115497. No. 331. *Sufed muli*. The leaves and the white root, up to a foot long, are eaten. The flavor is mild and pleasant, and the plant is said to grow the year round.

115498. *SOJA MAX* (L.) Piper. Fabaceae.
Soybean.

No. 337. From Poona, March 16, 1936. Origin unknown; the beans are used both as food and as fodder.

115499. *CAJANUS INDICUS* Spreng. Fabaceae.
Pigeonpea.

No. 203. *Tuarka balli*. From Bangalore, Mysore, March 5, 1936. Much esteemed as food.

115500. *VOANDZEBIA SUBTERRANEA* (L.) Thours. Fabaceae.

No. 246. *Musambi charma*. From Bombay, March 8, 1936. Eaten dry and said to be imported from Africa.

115501 to 115512. *SOLANUM MELONGENA* L.
Solanaceae. Eggplant.

115501. No. 278. *Kathe vanjalk*. From Poona, March 15, 1936. A very seedy, much-esteemed fruit, globose, greenish, marked white or purple, and about 2 inches in diameter with a spiny calyx.

115502. No. 323. *Gote vangi*. From Poona, March 16, 1936. A popular variety, said to be subglobose, of medium size, pale purple lined abundantly with white.

115503. No. 324. *Kalevangi*. From Poona, March 16, 1936. A black-purple fruit 8 inches long.

115504. No. 339. *Muktakeshi*. From Poona, March 16, 1936. A variety weighing up to 2 pounds and free from seeds.

115505. No. 340. *Giant of Benares*. A strain selected by a local seedsman from a northern variety. Said to grow to 3 pounds.

115506 to 115512. From Poona, March 16, 1936. Presented by Dr. G. S. Cheema, Chief Horticulturist, Bombay Government. A collection of strains bred from the local forms, represented in his collection.

115506. No. 321. *Black Beauty*.

115507. No. 321-A. *Gote Vangi*.

115508. No. 321-B. *Long Green*.

115509. No. 321-C. *Long Purple*.

115510. No. 321-D. *New York Improved Purple*.

115511. No. 321-E. *Round Purple*.

115512. No. 321-F. *Round Purple*.

115428 to 115525—Continued.

115513 to 115517. *TRITICUM AESTIVUM* L.
Poaceae. Common wheat.

From Poona, March 16, 1936.

115513. No. 283. *Punjabi Sarvati*. Said to have come originally from the Punjab.

115514. No. 284. *Kaligawaran*.

115515. No. 285. *Gawaran*.

115516. No. 286. *Sarpatti Gawaran*.

115517. No. 282. *Bakshi gao*. Said to be locally grown and to be a very good winter crop.

115518. *VIGNA SESQUIPEDALIS* (L.) Fruticosa. Fabaceae. Asparagus-bean.

No. 344. From Poona, March 16, 1936. Pods and seeds used as food, but the plant is not widely grown, although the pods appear to be very good.

115519 to 115524. *VIGNA SINENSIS* (Torneo) Savi. Fabaceae. Cowpea.

115519. No. 243. *Chotti chau*. From Bombay, March 8, 1936. Said to be eaten dry and to be from Gujerat.

115520. No. 247. *Chaula*. From Bombay, March 8, 1936. Said to come from Abusar. Eaten dry.

115521 to 115524. From Poona, March 16, 1936. Presented by the principal of the Poona Agricultural College. *Chaula*. The seeds are eaten dry and used as fodder.

115521. No. 316. 115523. No. 318.

115522. No. 317. 115524. No. 319.

115525. *ZIZIPHUS MAURITIANA* Lam. Rhamnaceae. Indian jujube.

No. 253. *Bhor*. From Bombay, March 11, 1936. An uncultivated tree whose leaves are used for fodder and the small fruits, three-fourths of an inch in diameter, are more or less astringent, but edible.

115526 to 115537.

From the Netherlands. Seeds presented by Dr. Th. J. Stomps, Director, Botanic Garden of the University of Amsterdam, Amsterdam. Received April 22, 1936.

115526. *CUCURBITA MAXIMA* Duchesne. Cucurbitaceae. Squash.

115527. *LACTUCA PLUMIERI* (L.) Gren. and Godr. Cichoriaceae.

For previous introduction see 114648.

115528. *LACTUCA VIROSA* L. Cichoriaceae.

For previous introduction see 114536.

115529. *RHEUM PALMATUM* L. Polygonaceae. Sorrel rhubarb.

For previous introduction see 115274.

115530. *RHEUM PALMATUM TANGUTICUM* Maxim. Polygonaceae. Rhubarb.

For previous introduction see 114468.

115531 to 115537. *SOLANUM* spp. Solanaceae.

115531. *SOLANUM AVICULARE* Forst. f. Nightshade.

115526 to 115537—Continued.

115532. SOLANUM BONARIENSE L.

Granadillo. A tender evergreen shrub up to 10 feet high, with ovate-oblong, sinuate-repand leaves, long lateral racemes of large white flowers and globose yellow berries. Native to Argentina; said to have medicinal properties.

For previous introduction see 41312.

115533. SOLANUM CAPSICASTRUM Link.
False Jerusalem-cherry.

For previous introduction see 114543.

115534 and 115535. SOLANUM DULCAMARA L.
Bitter nightshade.115536. SOLANUM MELONGENA L.
Eggplant.

115537. SOLANUM ROSTRATUM Dun.

115538 to 115547.

From the Union of Soviet Socialist Republics. Seeds presented by Dr. A. M. Popov, Institute of Plant Industry, Leningrad. Received May 6, 1936.

Seeds grown at the Aral Research Station.

115538 to 115542. CITRULLUS VULGARIS Schrad.
Cucurbitaceae. Watermelon.115538. No. 2474. *Azhinovskii*.115539. No. 2634. *Azovskii Pudovik*.115540. No. A-523. *Lhubimetz khutora*.115541. No. A-2482. *Murashka Bogaevskii*.115542. No. A-1822. *Tseocemurzko*.115543 to 115547. CUCUMIS MELO L.
Cucurbitaceae. Muskmelon.115543. *Bukharka*.115544. *Itch-Kysyl*.115545. *Koi-bash*.115546. *Krasavitza Vostoka*.115547. *Tsaritsa Dynl*.115548 and 115549. ORYZA SATIVA L.
Poaceae. Rice.

From Portuguese Guinea, Africa. Seeds presented by the Resident Agriculturist of Bafata, through Dr. Leon Croizat, New York City, N. Y. Received April 23, 1936.

115548. Variety *Jambarum*.115549. Variety *Jaka*.

115550 to 115632.

From Turkey. Seeds collected by H. L. Westover and F. L. Wellman, Bureau of Plant Industry. Received May 4, 1936.

Collected in the bazar at Istanbul, Turkey, March 31 and April 4, 1936, unless otherwise stated.

115550 and 115551. ABELMOSCHUS ESCULENTUS (L.) Moench.
Malvaceae. Okra.115550. No. 68. *Bâmia*.115551. No. 63. *Bâmia*.115552 to 115554. ALLIUM CEPA L.
Liliaceae. Onion.

115552. No. 25. A brown onion.

115553. No. 72. A long type of onion.

115554. No. 75. A large flat sweet onion.

115550 to 115632—Continued.

115555. ALLIUM PORRUM L.
Liliaceae. Leek.No. 31. *Prassa*.115556. ANETHUM GRAVEOLENS L.
Apiaceae. Dill.No. 66. *Tereotou*.115557 and 115558. APIUM GRAVEOLENS L.
Apiaceae. Celery.115557. No. 23. *Rus Selmo Kerewiz*.115558. No. 43. *Kerewiz Yaprok*.115559 to 115561. BETA VULGARIS L.
Chenopodiaceae. Common beet.115559. No. 61. *Pazi* (red).115560. No. 7. *Pandjar*.115561. No. 4. *Rundjar*.115562 to 115566. BRASSICA spp.
Brassicaceae.1155562. BRASSICA OLERACEA BOTRYTIS L.
Cauliflower.No. 62. *Carmochitia*.115563 and 115564. BRASSICA OLERACEA CAPITATA L.
Cabbage.115563. No. 40. *Lahana*, a green cabbage.115564. No. 15. *Kirmizî lahana*, a red cabbage.115565. BRASSICA OLERACEA GEMMIFERA Zenker.
Brussels sprouts.No. 41. *Bruselle Ohou*.115566. BRASSICA RAPA L.
Turnip.No. 50. *Sielgarm*.115567. CALENDULA ARYENSIS L.
Asteraceae.

No. 84. April 4, 1936. From near Istanbul, Turkey. An annual plant about 2 feet high, with spatulate, radical leaves and yellow flower heads. Native to southern Europe.

115568 to 115570. CAPSICUM ANNUM L.
Solanaceae. Common redpepper.

115568. No. 73. A large round type.

115569. No. 34. *Biber uzuu*.115570. No. 52. *Pattidjan Kerner*.115571. CICER ARIETINUM L.
Fabaceae. Chickpea.No. 36. *Nohut*.115572. CICHORIUM ENDIVIA L.
Cichoriaceae. Endive.No. 17. *Kuzu kulagi*.115573 to 115576. CITRULLUS VULGARIS Schrad.
Cucurbitaceae. Watermelon.

115573. No. 78.

115574. No. 83. Mixed seed.

115575. No. 56. *Karpuz*.115576. No. 8. *Karpuz*.115577. CORCHORUS OLITORIUS L.
Tiliaceae. Jute.

No. 65. *Muhlie*. A type used as greens.

For previous introduction see 61225.

115550 to 115632—Continued.

- 115578 to 115580. CUCUMIS MELO L. Cucurbitaceae. Muskmelon.
115578. No. 81. *Izmir* or *Smyrna* type.
115579. No. 19. *Topatan Kavunu*. A long sugar melon.
115580. No. 33. Sugar melon (round).
- 115581 to 115583. CUCUMIS SATIVUS L. Cucurbitaceae. Cucumber.
115581. No. 37. A long type.
115582. No. 42. *Anguräkia*, a short type (Russian).
115583. No. 71. A Russian type.
- 115584 and 115585. CUCURBITA MAXIMA Duchesne. Cucurbitaceae. Squash.
115584. No. 82. A long white squash.
115585. No. 14. *Helvaci Kabak*.
115586. CUCURBITA MOSCHATA Duchesne. Cucurbitaceae. Cushaw.
- No. 45. *Bal Kabak*.
115587. CUCURBITA PEPO L. Cucurbitaceae. Pumpkin.
- No. 60. *Takiz Kabak*.
- 115588 and 115589. DAUCUS CAROTA L. Apiaceae. Carrot.
115588. No. 3. *Havuç Buyuk*. A large carrot.
115589. No. 64. *Carota ufak*.
115590. ERUCA SATIVA Hill. Brassicaceae. Rocket.
- No. 1. *Roka salata*. Garden cress.
- For previous introduction see 58414.
- 115591 and 115592. LACTUCA SATIVA L. Cichoriaceae. Garden lettuce.
115591. No. 13. *Top salata*, head lettuce.
115592. No. 54. *Marulla*.
- 115593 and 115594. LAGENARIA LEUCANTHA (Duchesne) Rusby. Cucurbitaceae. Calabash gourd.
115593. No. 32. *Su Kobak*.
115594. No. 30. *Armia Kobak*.
115595. LENS ESCULENTA Moench. Fabaceae. Lentil.
- No. 35.
- 115596 and 115597. LEPIDIUM SATIVUM L. Brassicaceae. Garden cress.
115596. No. 58. *Ceré*.
115597. No. 76.
115598. LOLIUM PERENNE L. Poaceae. Perennial ryegrass.
- No. 20. *Chim*.
- 115599 to 11601. LYCOPERSICON ESCULENTUM Mill. Solanaceae. Tomato.
115599. No. 5.
11600. No. 79. A tall-growing type for irrigated gardens.
11601. No. 80. A small variety for dry soils.
11602. MALVA sp. Malvaceae.
- No. 9. *Ebe gumeçi*, mallow (greens).

115550 to 115632—Continued.

- 115603 and 115604. MEDICAGO SATIVA L. Fabaceae. Alfalfa.
115603. No. 6. *Junca*.
115604. No. 22.
- 115605 to 115607. PETROSELINUM CRISPUM (Mill.) Nym. Apiaceae. Parsley.
115605. No. 59. *Maidanoz*.
115606. No. 67. A curled type.
115607. No. 74. *Perstl*.
115608. PHALARIS CANARIENSIS L. Poaceae. Canary grass.
- No. 26.
- 115609 to 115617. PHASEOLUS VULGARIS L. Fabaceae. Common bean.
115609. No. 10. *Cale*. A short pole bean with very thin tender pods.
115610. No. 12. Late beans.
115611. No. 28. *Gher tzali fasulio*.
115612. No. 29. *Barbumia*.
115613. No. 38. *Yeni dunya*. A late variety.
115614. No. 46. *Aiohe Kadın*. An early variety.
115615. No. 47. *Aiohe alüdjülü*.
115616. No. 69. *Ayse Kadın fasulyasi*. A late type.
115617. No. 77.
- 115618 to 115620. PISUM SATIVUM L. Fabaceae. Pea.
115618. No. 27. *Bezelia Turk*.
115619. No. 39. *Freng bezelia*. A sweet pea.
115620. No. 53.
- 115621 to 115623. RAPHANUS SATIVUS L. Brassicaceae. Radish.
115621. No. 51. *Crup bievöz*. A white type.
115622. No. 11. *Bayir turku*.
115623. No. 2. *Kirmizi Turp*. A red radish.
115624. SESAMUM ORIENTALE L. Pedaliaceae. Sesame.
- No. 21.
115625. SOLANUM MELONGENA L. Solanaceae. Eggplant.
- No. 18. *Boston Patlicani*. A round eggplant.
- 115626 and 115627. SPINACIA OLERACEA L. Chenopodiaceae. Common spinach.
115626. No. 70.
115627. No. 55. *Ispamak*.
115628. VICIA FABA L. Fabaceae. Broadbean.
- No. 57. *Bakla Feveçi*.
115629. VIGNA SESQUIPEDALIS (L.) Fruwirth. Fabaceae. Asparagus-bean.
- No. 48. *Antaze frsuka*.
- 115630 and 115631. VIGNA SINENSIS (Torner) Savi. Fabaceae. Cowpea.

115550 to 115632—Continued.

115630. No. 44. *Boredje fasuho*. A black-eyed bean.

115631. No. 49.

115632. *ZEA MAYS* L. Poaceae. Corn. No. 24.

115633. *VITIS* sp. Vitaceae.

From Ecuador. Plants and cuttings presented by Luis Gattoni, Departamento de Agricultura de Ecuador, Quito. Received May 20, 1936.

A wild grape, native to Ecuador, used as a grafting stock for varieties of *Vitis vinifera*.

115634 to 115637. *ZEA MAYS* L. Poaceae. Corn.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received May 6, 1936.

From Agra, United Provinces, March 28, 1936. Both yellow and white types are planted in the rainy season. The white corn is said to be very tender.

115634. No. 433. 115636. No. 433-B.

115635. No. 433-A. 115637. No. 433-C.

115638 to 115662. *HEDERA* spp. Araliaceae.

From England. Plants purchased from L. R. Russell, Ltd., Richmond Nurseries, Richmond, Surrey. Received May 20, 1936.

115638 and 115639. *HEDERA CANARIENSIS* Willd. Algerian ivy.

A high-climbing tender ivy with large bright-green roundish-ovate leaves. Native to the Canary Islands.

115638. *Gloire de Maringo*.

115639. *Azorica variegata*.

115640. *HEDERA NEPALENSIS* K. Koch.

A high-climbing ivy with triangular-ovate to triangular-oblong, pinnate-lobed leaves 2 to 5 inches long. Native to India.

115641 to 115644. *HEDERA COLCHICA* Koch. Colchis ivy.

A high-climbing vine with the young growth covered by golden-yellow scales, broadly cordate, almost entire, very large bright-green leaves of firm texture, and small umbels of greenish-yellow flowers in paniculate clusters, followed by black fruits. Native to the Caucasus region.

For previous introduction see 108792.

115641. The type.

115642. Variety *Amurensis*.

115643. Variety *Dentata*.

115644. Variety *Dentata Variegata*.

115645 to 115662. *HEDERA HELIX* L. English Ivy.

115645. Variety *Alba Marginata*; small greenish leaves with white margins.

115646. Variety *Angularis Aurea*; young leaves soft yellowish green.

115638 to 115662—Continued.

115647. Variety *Atropurpurea*; leaves dark purple in winter.

115648. Variety *Oaenwoodiana*; leaves small, finely cut with whitish veins.

115649. Variety *Contracta*; plants dwarf, freely branched, leaves small, close set, much waved at margins.

115650. Variety *Donerallensis*; leaves larger than those of variety *Oaenwoodiana*, usually three-lobed.

115651. Variety *Elegantissima*; leaves small with white margins.

115652. Variety *Emerald Gem*; leaves small, bright glossy green.

115653. Variety *Howardii*; leaves mottled, sometimes silver at edge.

115654. Variety *Rhomboida Variegata*; leaves rhomboid ovate, silver margined.

115655. Variety *Jubilee*; leaves small, silver variegated and margined.

115656. Variety *Comglomerata*; plants dwarf with erect stems and close-set leaves.

115657. Variety *Mrs. Pollock*; leaves small, golden.

115658. Variety *Russell's Gold*; leaves small, new growths golden.

115659. Variety *Sheen Silver*; leaves small, silver edged and variegated.

115660. Variety *Hibernica*.

115661. Variety *Hibernica Aureomaculata*; leaves blotched pale, creamy yellow.

115662. Variety *Rhomboida*; leaves thick, rhomboid-ovate; stems thick with short internodes.

115663. *CARYA OVATA* (Mill.) K. Koch. Juglandaceae. Hickory nut.

From Canada. Scions presented by G. H. Corsan, Echo Valley Nut Plantation, Islington, Ontario. Received May 21, 1936.

Nelson. A true shagbark hickory; the nuts are very large and have a thin shell which cracks easily. The tree is 70 feet tall, with a spread of 35 feet, and withstands a temperature of -40° F.

115664. *AMORPHOPHALLUS KONJAO* KOCH. Araceae.

From Japan. Tubers purchased from the Yokohama Nursery Co., Yokohama. Received May 21, 1936.

An aroid grown in Japan for the edible starchy tubers.

For previous introduction see 47226.

115665. *PROSOPIS OHILENSIS* (Molina) Stuntz. Mimosaceae.

From Hawaii. Seeds presented by E. L. Caum, Experiment Station of the Hawaiian Sugar Planters Association. Received May 5, 1936.

The sweetish pods of this tree are eaten by cattle.

For previous introduction see 96516.

115666 to 115776. VIGNA SINENSIS (Torner) Savi. Fabaceae. Cowpea.

From England. Seeds presented by the Royal Botanic Gardens, Kew, Surrey. Received May 22, 1936.

Nos. 115666 to 115671 were originally from the Anglo-Egyptian Sudan, Africa.

115666. *Lubia hillu*. From Donga Province.

115667. *Lubia hillu*. From Dongola Province.

115668. *Lubia hinatteu*. From Medani District.

115669. *Lubia Abiad*. From Medani District.

115670. *Lubia hillu*. From Shendi District.

115671. *Lubia hillu*. From White Nile Province.

Nos. 115672 to 115689 were originally from Ceylon.

115672. *Usl Leema*. No. 35. From Am-balantota.

115673. *Gal-li-me*. No. 86. From Badulla District.

115674. *Hen-me*. No. 87. From Badulla District.

Nos. 115675 to 115680 were from Bata ata District.

115675. *Kallu Lcema*. No. 39.

115676. *Masmora*. No. 54.

115677. *Ematiya*. No. 56.

115678. *Bala*. No. 58.

115679. *Hodi*. No. 59.

115680. *Polon*. No. 68.

115681. *Polon*. No. 35. From Galle District.

115682. *Palukena*. No. 70. From Matava District.

Fruits hang in clusters.

115683. *Polon Leema*. No. 71. From Matava District.

115684. *Wapurana*. No. 72. From Matava District.

115685. *Kalu*. No. 64. From Midyemaya District.

115686. *Kotu me*. No. 18. From Nikamaratiya District.

115687. *Kotu me*. No. 2. From Rattota District.

115688. *Swappu Pathangai*. No. 91. From Sengapaddal District.

115689. *Ametiya Leema*. No. 51. From Weeraketiya District.

115690. *Azmerit*. From Egypt.

115691. *Beladi*. From Egypt.

115692. Family 4/34. No. 6. From Egypt. Claimed to be resistant to root knot and immune from rust.

Nos. 115693 to 115706 were originally from Kenya Colony, Africa.

Nos. 115693 to 115695 were from Embu District, Central Province.

115693. Brown. 115695. White.

115694. Purple.

115666 to 115776—Continued.

115686. *Kimakoko*. From Killfi, Coast Province.

Nos. 115697 to 115701 were from Machakos District.

115697. No. 1. 115700. No. 5.

115698. No. 3. 115701. No. 6.

115699. No. 4.

Nos. 115702 to 115706 were from Nyanza Province.

115702. *Nyamamu*.

115703. *Dagala*, buff.

115704. *Nyalienga*.

115705. *Dagala*. No. 6.

115706. *Dagala*. No. 7.

115707. White. From Mauritius.

115708. Pink. From Mauritius.

Nos. 115709 to 115715 were originally from Northern Rhodesia, Africa.

115709. No. 5. From Barotseland.

Introduced by natives from Angola.

115710. No. 18. From Barotseland.

115711. No. 9. From Broken Hill District.

115712. No. 15. From Isoka Imporokosi (?).

115713. Purple pod.

115714. *Chipinyi*.

115715. *White Poddio*.

Nos. 115716 to 115745 were originally from Nigeria, Africa.

Nos. 115716 to 115723 were from Benue Province.

115716. Y 1.

115717. Y 2.

115718. Y 7.

115719. Y 14-A.

115720. Y 12. *Segha*.

115721. Y 17-A. *Segha*.

115722. Y 17-D. *Segha*.

115723. Y 20. *Segha*.

115724. No. 2. *Ere me me* (?). From Hovia Emivate.

Nos. 115725 to 115729 were from Kano Emivate.

115725. 1-B. *Sa dabba Sata*.

115726. 3-A. *Hannum Marini*.

115727. No. 4. *Kannanado*.

115728. No. 5. *Kyambos*.

115729. *Dan arbain*.

Nos. 115730 to 115735 were from Kat-sina Emivate.

115730. No. 1. 115732. No. 5.

115731. No. 2. 115733. No. 7.

115734. No. 8. *Kashin Kajj*.

115735. *Tesiririya*.

115736. No. 1. From Lake Chad.

115666 to 115776—Continued.

115737. No. 2. From Lake Chad.

Nos. 115738 to 115744 were from Sokoto Emirate.

115738. *Sokoto*. No. 1.115739. *Sokoto*. No. 2.115740. *Sokoto*. No. 3.115741. *Sokoto*. No. 4.115742. *Sokoto*. No. 5.115743. *Sokoto*. No. 6.115744. *Sokoto*. No. 8.115745. *Jan Tserriya*. From Zaria District.

Nos. 115746 to 115751 were originally from Tanganyika, Africa.

115746. Cowpea. From Morogore District.

115747. *Kunde Tambaazi*. From Morogore District.115748. *Kiliyamgombera*.115749. *Kati*.115750. *Kunde Ioma*.115751. *Muskeneka*.

Nos. 115752 to 115776 were originally from Uganda, Africa.

115752. No. 1. From Bunyoro District.

115753. No. 2. From Bunyoro District.

Nos. 115754 to 115757 were from Imbali District.

115754. *Namugero* (c).115755. *Kagumba*.115756. *Kisyanka*.115757. *Namudamu* (b).

Nos. 115758 to 115762 were from Kampala District.

115758. *Bimogeti*. 115761. *Inpindi*.115759. *Kantinti*. 115762. *Inpindi*.115760. *Kigomoti*.

Nos. 115763 to 115771 were from Lango District.

115763. *Acuta-akol*.115764. *Akuto-atar*.115765. *Acungo*.115766. *Alegi*.115767. *Apee*.115768. *Kakobe-mogoto*.115769. *Magoti* (2).115770. *Magoti* (3).115771. *Obungula* or *Gswagwa*.

Nos. 115772 to 115775 were from Toro District.

115772. *Binara*. 115774. *Musango*.115773. *Muko*. 115775. *Rubani*.115776. *Ngor* (Alur), *Osuru* (Lugevava). From White River Province.115777 to 115783. *Gossypium* spp. Malvaceae.

From Puerto Rico. Seeds collected by L. C. Fife, Bureau of Entomology and Plant Quarantine. Received April 28, 1936.

The C. and F. numbers are those of the Division of Cotton and Other Fiber Crops and Diseases.

Wild cotton.

Nos. 115777 and 115778 have locks 2½ to 3 inches long.

115777. *Gossypium* sp.

C. and F. No. 1089.

115778. *Gossypium* sp.

C. and F. No. 1090.

115779. *Gossypium* sp.

C. and F. No. 1091.

115780. *Gossypium* sp.

C. and F. No. 1092.

115781. *Gossypium* sp.

C. and F. No. 1093.

Seed fuzzy; leaves entire, resembling upland cotton.

115782. *Gossypium* sp.

C. and F. No. 1094.

115783. *Gossypium* sp.

C. and F. No. 1095.

115784. *Vitis vinifera* L. Vitaceae. European grape.

From Greece. Cuttings presented by the Ecole Supérieure Agronomique, Athens, at the request of N. Lely, Greek Legation, Washington, D. C. Received May 22, 1936.

Rhazaki de Crete.115785 to 115790. *Triticum* spp. Poaceae.

From England. Seeds presented by Prof. John Percival, University College, Reading. Received May 1, 1936.

115785. *Triticum compactum atrum* Körn.115786. *Triticum pyramidale pseudocompressum* Percival.115787. *Triticum pyramidale pseudococtivum* Percival.115788. *Triticum sphaerococcum globosum* Percival.115789. *Triticum sphaerococcum rubiginosum* Percival.115790. *Triticum timopheevi* Zhuk.115791. *Roystonea* sp. *Phoenicaceae*. Royal palm.

From California. Seeds presented by David Barry, Jr., Los Angeles. Received May 22, 1936.

The roystoneas are tall, pinnate-leaved palms, native to the West Indies.

115792 to 115809. CAPSICUM ANNUUM L.
Solanaceae. **Common redpepper.**

From India. Seeds presented by R. B. Deshpande, Special Research Assistant to the Imperial Economic Botanist, Pusa. Received May 11, 1936.

Chilli.

115792. Type 4.	115801. Type 25.
115793. Type 5.	115802. Type 26.
115794. Type 6.	115803. Type 28.
115795. Type 8.	115804. Type 30.
115796. Type 12.	115805. Type 31.
115797. Type 15.	115806. Type 34.
115798. Type 18.	115807. Type 41.
115799. Type 19.	115808. Type 46.
115800. Type 21.	115809. Type 51.

115810 and 115811.

From the Union of South Africa. Seeds presented by the McGregor Museum, Kimberley. Received May 6, 1936.

115810. OLEA VERRUCOSA (Roem. and Schult.) Link. Oleaceae. **Olive.**

A tree up to 30 feet high, native to southern Africa, with linear-lanceolate leaves 3 inches long, covered with small yellow scales beneath, and short axillary panicles of inconspicuous flowers followed by small dry globose fruits. The fruit is of no value in itself, but the tree is very drought- and frost-resistant.

For previous introduction see 111232.

115811. RHUS LANCEA L. f. Anacardiaceae. **Sumac.**

Karree-boom. A small bushy tree with gray bark and long-stemmed leaves with linear-lanceolate leaflets 4 to 6 inches long. It is a valuable hardwood tree for regions of limited rainfall. Native to the Cape of Good Hope.

For previous introduction see 111233.

115812 to 115821. TRITICUM spp. Poaceae.

From the Union of Soviet Socialist Republics. Seeds presented by Dr. N. I. Vavilov, Institute of Plant Industry, Leningrad. Received May 11, 1936.

115812. TRITICUM HORDEIFORME Host.

No. 16419.

115813. TRITICUM MACHA Dekapr. and Men.

No. 28170.

For previous introduction see 113963.

115814. TRITICUM ORIENTALE INSIGNE Percival.

No. 23896. From Daghestan.

115815. TRITICUM ORIENTALE INSIGNE Percival.

No. 15992. From Turkey.

115816. TRITICUM PERSICUM FULIGINOSUM Zhuk.

No. 7106. From the republic of Georgia.

115812 to 115821—Continued.

115817. TRITICUM PERSICUM RUBIGINOSUM Zhuk.

No. 11891. From the republic of Georgia.

115818. TRITICUM SPHAEROCOCCUM GLOBOSUM Percival.

No. 23824. From the Punjab, India.

115819. TRITICUM THAOU DAR Reut.

No. 27134. From Turkey.

115820. TRITICUM VAVILOVI Jakub.

No. 33770. From Van, Turkey.

115821. TRITICUM VAVILOVI Jakub.

No. 29533. From Van, Turkey.

115822 to 115824.

From Kenya Colony, Africa. Seeds purchased from the Mount Elgon Nurseries, Elgon, Kitale. Received May 16, 1936.

115822 and 115823. TEPHROSIA VOGELII Hook. f. Fabaceae.

115822. A form with white flowers.

115823. A form with pink flowers.

115824. OLEA CHRYSOPHYLLA Lam. Oleaceae.

A small evergreen tree closely related to the cultivated olive. Its chief ornamental value lies in the golden color of the under surface of the leaves. Native to eastern Africa.

For previous introduction see 99445.

115825 to 115829. ORNITHOGALUM spp. Liliaceae.

From the Union of South Africa. Bulbs presented by Miss K. C. Stanford, Stellenbosch, through the W. Atlee Burpee Co., Philadelphia, Pa. Received May 25, 1936.

115825. ORNITHOGALUM LACTEUM Jacq. **Star-of-Bethlehem.**

A bulbous plant from the Cape of Good Hope, with about 10 fleshy basal leaves and white flowers in a large dense raceme on a stout stem 1 or 2 feet high.

For previous introduction see 80575.

115826. ORNITHOGALUM MACULATUM Jacq.

An ornithogalum native to southern Africa, with four or five linear leaves about 4 inches long and several small yellow flowers with brown spots at the tips of the three outer segments.

115827. ORNITHOGALUM SAUNDERSIAE Baker.

A South African bulbous plant with lanceolate leaves up to 1 foot long, and white or yellow flowers borne in a dense raceme on a scape 1 foot or more high.

For previous introduction see 66473.

115828. ORNITHOGALUM sp.

Received under the name "splendens," for which a place of publication has not been found.

A rare species with large orange-red flowers on stems about 2 feet high.

115829. ORNITHOGALUM sp.

A form with double flowers.

115830, *NICOTIANA TABACUM* L. Solanaceae. Common tobacco.

From Guatemala. Seeds collected by C. H. Logan at Antigua. Received May 26, 1936.

Volunteer tobacco, collected on the ruins of old houses in Antigua, January 1936.

115831 to 115833. *TRIFOLIUM* spp. Fabaceae. Clover.

From the Union of Soviet Socialist Republics. Seeds presented by Dr. N. I. Vavilov, Director, Institute of Plant Industry, Leningrad. Received May 13, 1936.

115831. *TRIFOLIUM CANESCENS* Willd.

No. 11756. From Azerbaijan. A perennial clover about 6 inches high, with obovate villous leaflets and grayish-white flower heads. Native to Asia Minor.

For previous introduction see 108700.

115832 and 115833. *TRIFOLIUM OCHRROLEUCON* Huds.

From the Maisop region, northern Caucasus.

115832. No. K-16255.

115833. No. K-16257.

115834 to 115842.

From Germany. Seeds presented by Dr. Rosmer, Director, Pflanzenzuchtstation der Universität, Halle Saale. Received May 18, 1936.

115834 to 115840. *TRITICUM AESTIVUM* L. Poaceae. Common wheat.

115834. No. 1020/31.

115835. No. 4172/30.

115836. No. 1456/32.

115837. No. 3330/32.

115838. No. 4453/31.

115839. No. 1381/32.

115840. No. 4065/32.

115841 and 115842. *HORDEUM VULGARE* L. Poaceae. Barley.

115841. *Nacktgerste*.

115842. *Morgenrot*.

115843 to 115853. *SOJA MAX* (L.) Piper. Fabaceae. Soybean.

From India. Seeds presented by I. S. S. Kumar, Economic Botanist of the Government of Bombay. Received May 19, 1936. Late-maturing Indian varieties.

115843. No. 1. Yellow; from Lucknow.

115844. No. 2. Black; from Lucknow.

115845. No. 3. White; from Darjeeling.

115846. No. 4. Green; from Darjeeling.

115847. No. 5. Small, brown; from Darjeeling.

115848. No. 6. Large, brown, from Darjeeling.

115849. No. 7. *Baramati*; from Darjeeling.

115850. No. 8. *Napali*; from Assam.

115851. No. 9. *Spotted Khasi*; from Assam.

115843 to 115853—Continued.

115852. No. 10. *White Khasi*; from Assam.

115853. No. 11. From the Unao District.

115854 to 115864. *TRITICUM* spp. Poaceae.

From the Union of Soviet Socialist Republics. Seeds presented by N. I. Sharapov, Head of the Department of New Cultures, Institute of Plant Industry, Leningrad. Received May 7, 1936.

115854. *TRITICUM DICOCOIDES SPONTANEOGRUM* (Flaks.) Percival.

No. 17157. From Syria.

115855. *TRITICUM DURUM FÈRE-ALEXANDRINUM* Jacob. and Nikol.

No. 17195. From Syria.

115856 to 115858. *TRITICUM DURUM* Desf. Durum wheat.

115856. No. 17889. From Cyprus.

115857. No. 17784. From Cyprus.

115858. No. 17787. From Cyprus.

115859. *TRITICUM MONOCOCCUM HORNEMANNI* Clem.

No. 23653. From Armenia.

115860. *TRITICUM DURUM* Desf. Durum wheat.

No. 23032. From Yugoslavia.

115861. *TRITICUM* sp.

No. 28247. From Nakhechevan. Received as "spontaneum," a name for which a place of publication has not been found.

115862. *TRITICUM DURUM* Desf. Durum wheat.

No. 14384. From Turkey (Asia Minor).

115863 and 115864. *TRITICUM THAOU DAR* Reut.

From Turkey (Asia Minor).

115863. No. 27141. 115864. No. 27134.

115865 to 115867.

From the Union of Soviet Socialist Republics. Seeds presented by the Director, Botanic Garden, Tiflis, Georgia. Received May 8, 1936.

115865. *BELLEVALIA LONGISTYLA* (Misc.) Grossh. Liliaceae.

A bulbous plant with lanceolate leaves about a foot high and one-half inch wide and a panicle of 15 to 25 small, rusty-purple, campanulate flowers. Native to the Caucasus region.

For previous introduction see 108783.

115866. *FESTUCA ELATIOR* L. Poaceae. Meadow fescue.

115867. *FESTUCA OVINA SULCATA* Hack. Poaceae. Fescue.

For previous introduction see 115358.

115868 to 115872.

From the Union of Soviet Socialist Republics. Seeds presented by Dr. A. M. Popov, Institute of Plant Industry, Leningrad. Received May 21, 1936.

115868 and 115869. *BRASSICA OLERACEA CAPITATA* L. Brassicaceae. Cabbage.

115868 to 115872—Continued.

115868. No. 179. From Nomer Pervy, Moscow.

115869. No. 184. From Belorusskaya, Moscow.

115870. BRASSICA OLERACEA L. Brassicaceae. Wild cabbage.

No. 1425. From northern Caucasus. Received under the varietal name "orientalis," for which a place of publication has not been found.

115871 and 115872. LYCOPERSICON ESCULENTUM Mill. Solanaceae. Tomato.

115871. No. K-1561. *Budionovka*.

115872. No. 163/co. *Chudo Rinka*. From the Ukraine.

115873 to 115973.

From India. Seeds collected by Walter Koelz. Bureau of Plant Industry. Received May 6, 1936.

115873. ABELMOSCHUS ESCULENTUS (L.) Moench. Malvaceae. Okra.

No. 401. *Bhindi*. From the market at Agra, United Provinces, March 28, 1936. Fruits up to 3 inches long.

115874 to 115876. ALLIUM CEPA L. Liliaceae. Onion.

Piyaz. From Agra, United Provinces, March 29, 1936.

115874. No. 407. Said to be a red flat strong onion, 4 inches in diameter, which keeps from May to January in good condition.

115875. No. 417. Said to be a flat red onion, 4 inches in diameter.

115876. No. 437. Said to be a flat white onion, 4 inches in diameter.

115877. ARACHIS HYPOGAEA L. Fabaceae. Peanut.

No. 257. *Aurapalli*. From Poona, March 15, 1936.

115878 to 115886. BRASSICA spp. Brassicaceae.

115878 to 115883. BRASSICA OLERACEA BOTRYTIS L. Cauliflower.

From Agra, United Provinces, March 27 to March 29, 1936.

115878. No. 394. *Agra phulgobi*. The largest heads of the five varieties grown here.

115879. No. 397. *Agra phulgobi*. The heads are 10 inches in diameter.

115880. No. 399. *Agra phulgobi*.

115881. No. 409. *Patna phulgobi*. A form said to be self-bleaching.

115882. No. 410. *Saharanpur phulgobi*. Said to be 15 days later than 409 [115881] and to have larger heads.

115883. No. 435. Said to mature in 3 months.

115884. BRASSICA OLERACEA CAPITATA L. Cabbage.

No. 428. *Gobi*. March 29, 1936. Probably naturalized from Europe. Heads seen on the market were firm, rounded, and 8 inches in diameter.

115873 to 115973—Continued.

115885 and 115886. BRASSICA RAPA L. Turnip.

Sheigam. From Agra, United Provinces, March 28, 1936.

115885. No. 398. Said to be red-skinned, rounded, and to grow the year round.

115886. Probably the common red-skinned form.

115887. CARTHAMUS TINCTORIUS L. Asteraceae. Safflower.

No. 418. *Kasni*. From Agra, United Provinces, March 29, 1936. Flowers and seeds used medicinally.

For previous introduction see 115444.

115888. MURRAYA PANICULATA (L.) Jack. Rutaceae.

No. 420. From Agra, United Provinces, March 29, 1936. An attractive shrub with fragrant white flowers like orange blossoms and dark shiny leaves.

For previous introduction see 32317.

115889. CHENOPODIUM ALBUM L. Chenopodiaceae.

No. 414. *Barva*. A potherb from Agra, United Provinces, March 29, 1936.

115890 to 115902. CUCURBITUS VULGARIS Schrad. Cucurbitaceae. Watermelon.

Nos. 115890 to 115895 were collected at Poona, March 15, 1936.

115890. No. 256. An elongate, light-green melon with darker irregular stripes, 18 inches long; fairly sweet flesh of good quality and thin rind.

115891. No. 258. A dark-green melon 19 inches long, with thick rind; flesh fairly sweet and of fair quality.

115892. No. 262. A somewhat elongate melon 1 foot in diameter with medium-green rind with broken nets of darker green; rind thick; flesh coarse but fairly sweet.

115893. No. 265. Fruit globose, dark green, feebly blotched with lighter green, 14 inches in diameter; rind hard and thick; flesh melting, insipid.

115894. No. 267. Fruit 18 inches long, elongate, rind pale green, striped darker. Flesh granular, not particularly good.

115895. No. 287. A dark-green globose fruit 1 foot in diameter; flesh of fair quality, but not very sweet.

Nos. 115896 and 115897 were collected in Bombay, March 18, 1936.

115896. No. 351. A whitish green, unmarked, subglobose fruit, 1 foot in diameter; flesh pink, coarse and insipid.

115897. No. 352. A light-green fruit finely netted with darker green, subglobose and 1 foot in diameter; flesh of fair quality but insipid.

Nos. 115898 to 115900 were collected at Jalraon, Khandesh, Bombay Presidency, March 21, 1936.

115898. No. 374. A medium-green, finely netted fruit, heavily blotched with darker green, 18 inches by 12 inches; rind thick; flesh of fair quality and flavor.

115873 to 115973—Continued.

115899. No. 367. A dark-green, unmarked, somewhat elongate fruit 8 inches in diameter; rind thin and firm; flesh fine-grained and of fair flavor.

115900. No. 368. A light-green fruit, finely ribbed and netted with darker green, 14 inches in diameter; flesh of fair texture and flavor.

Nos. 115901 and 115902 were collected at Agra, United Provinces, March 29, 1936.

115901. No. 439. *Tarbuza*. Form grown in the rainy season.

115902. No. 429. *Tinda*. Round fruits 6 inches in diameter, much esteemed as a vegetable.

115903 to 115935. *CUCUMIS* spp. Cucurbitaceae.

115903 to 115926. *CUCUMIS* MELO L. Muskmelon.

Nos. 115903 to 115909 were collected at Poona, March 14 and 15, 1936.

115903. No. 254. Said to come from near Shalapur. Fruits 8 inches long, pointed at both ends, creamy white, moderately netted, fragrant, with white, sometimes very sweet flesh. Seed cavity small; seeds firmly attached.

115904. No. 255. Fruit fragrant, golden brown, often with green ribs and heavily netted, subglobose, about 8 inches in diameter, with a pronounced navel in the blossom end; flesh bright salmon, somewhat acid.

115905. No. 260. Fruit much flattened, 5 inches by 2½ inches, creamy white, smooth, with strange fragrance; flesh bright salmon of fair flavor.

115906. No. 261. Fruit top-shaped, 12 inches long, with a pronounced navel at the blossom end; green yellow with broken bands of yellow brown; flesh green, melting, fragrant; fruit firm and keeps well.

115907. No. 263. Fruit subglobose, somewhat flattened, very firm, cream-colored, heavily and strongly netted, with a strong strange fragrance; flesh thick, bright salmon, of odd flavor.

105908. No. 264. Fruit much elongated, 15 inches by 8 inches, yellow, more or less netted, more or less conspicuous navel; flesh salmon, firm but juicy, not much flavor.

115909. No. 268. Fruit subglobose, 10 inches long, orange and heavily netted; flesh salmon, somewhat acid.

Nos. 115910 and 115911 were collected March 18, 1936, in Bombay.

115910. No. 350. Fruit compressed, 6 inches by 4 inches, yellow to gold and nearly smooth; flesh white, sweet, with a pleasant distinctive flavor.

115911. No. 353. Fruit football shaped, 1 foot long, yellow, feebly netted; flesh white, rather flavorless.

115873 to 115973—Continued.

Nos. 115912 to 115915 were collected March 21, 1936, at Jalgaon, Khandesh, Bombay Presidency.

115912. No. 362. A smooth yellow fruit 18 inches long; flesh salmon, somewhat insipid; seed cavity large, and flesh rather thin.

115913. No. 371. A round fragrant fruit, 6 inches in diameter, pale green, heavily and coarsely ribbed; flesh white, insipid. Navel at blossom end.

115914. No. 372. Fruit green-brown, ribbed with pale green and somewhat netted, 6 inches in diameter; flesh salmon, insipid.

115915. No. 373. Fruit pear-shaped, smooth, cream-colored, 4 to 5 inches long; flesh greenish white; rind rather thin; seed cavity compact with seeds.

Nos. 115916 and 115917 were collected at Jalgaon, East Khandesh, Bombay Presidency, March 21, 1936.

115916. No. 375. Fruit strongly netted, yellow-brown, 6 by 4 inches; flesh green, melting, good flavor.

115917. No. 376. Fruit round, somewhat elongate, 6 inches in diameter, pale yellow and strongly netted; flesh salmon, thick and melting, often of good flavor.

Nos. 115918 to 115922 were collected at Itarsi, Central Provinces, March 23, 1936.

115918. No. 378. Fruit round or slightly elongate, with conspicuous navel at blossom end, yellow-brown, strongly netted; flesh thick, pale salmon, acid, otherwise flavorless.

115919. No. 379. Fruit flattened, 6 by 4 inches; segments of yellow-brown, heavily netted, alternate with nearly smooth ones of dark green; flesh salmon, insipid.

115920. No. 380. Fruit elongate, 14 by 4 inches, yellow, heavily netted with broad, darker, unnetted ribs; flesh pale salmon, acid.

115921. No. 381. Fruit elongate, flask-shaped, up to 1 foot long, pale yellow; flesh paler, insipid. Skin may be smooth or slightly netted.

115922. No. 382. Fruit rounded oblong, 8 inches long, golden brown with unbroken ribs of yellow; smooth skinned; flesh salmon, good flavor.

Nos. 115923 to 115926 were collected at Agra, United Provinces, March 25, 1936.

115923. No. 384. Fruits much flattened, usually with a huge protruding navel over blossom end, up to 3½ inches in diameter, smooth, yellow, more or less ribbed or mottled green. Rind very thin; flesh one-fourth inch thick, white. The whole seed cavity is tightly packed with seeds.

115924. No. 411. *Kharbuza*. Probably a mixture of races or subspecies.

115925. No. 432. *Kharbuza*. Planted in the rainy season. Most of the

115873 to 115973—Continued.

southern sorts are grown in winter or during light monsoons. This may represent a mixture.

115926. No. 440. *Kakri*. Supposed to be seeds of an elongate "snake cucumber" now on the market. Fruits 2 feet long, light green with fine elongate ridges. When young, they make an excellent salad vegetable, later stewed.

115927 to 115935. *CUCUMIS SATIVUS* L. Cucurbitaceae. Cucumber.

115927. No. 266. *Kakri*. From Poona, March 15, 1936. Fruit 2 feet long by 8 inches in diameter, yellow, smooth. Seed cavity like a muskmelon with seeds and placenta free from the flesh. Flesh thick, white, firm, mealy, cucumberlike. Seeds in orange acid envelope.

115928. No. 360. *Kakri*. From Bombay, March 20, 1936. Fruits 6 inches long, white when ripe; eaten as a salad.

115929. No. 363. *Danga Kakri*. From Jalgaon, Khandesh, Bombay Presidency, March 21, 1936. Fruits over 2 feet long and 5 or 6 inches in diameter, tapering to the neck, which is somewhat curved. Rather irregularly ribbed lengthwise, ribs 1 inch apart. Color pale yellow; flesh mealy also creamy, turning salmon color at the cavity. Whole fruit when ripe, fragile and perishable; fragrant, but no taste except slight fresh acidity. The immature fruits are used for salad.

115930. No. 377. *Kakri*. From Itarsi, Central Provinces, March 23, 1936. A tapering fruit, 18 inches long and 6 to 8 inches in diameter; light green with elongated broken blotches of blackish green; fruit thin; seed cavity large; fruit frail.

115931. No. 390. *Khira*. Said to be a foot long and yellow when ripe; stewed or eaten fresh.

Nos. 115932 to 115935 were collected in Agra, United Provinces, March 27, 1936.

115932. No. 391. *Kakri*.

115933. No. 402. *Samo Khira*. A quick-growing, alkali-resistant fruit 10 inches long, dark green when ripe.

115934. No. 404. *Khira*. Said to be a foot long and yellow when ripe; eaten raw.

115935. No. 403. *Kakri*. Said to be 18 inches long and white when ripe; eaten both raw and cooked.

115936 to 115939. *CUCURBITA* spp. Cucurbitaceae.

Nos. 115936 and 115937 were collected at Jalgaon, Khandesh, Bombay Presidency, March 21, 1936.

115936. *CUCURBITA MAXIMA* Duchesne. Squash.

No. 369. Fruit much flattened, 18 inches by 12 inches, strongly ribbed,

115873 to 115973—Continued.

white to salmon pink. This or a kindred race is said to grow to 70 pounds.

115937 to 115939. *CUCURBITA MOSCHATA* Duchesne. Cushaw.

115937. No. 365. *Gangafal*. Fruit 30 inches long by 14 inches in diameter, green, sparingly spotted with yellow and with very faint ribs. Leaves and flowers are eaten as greens. Keeps very well.

Nos. 115938 to 115940 were collected at Agra, United Provinces, March 25 to 29, 1936.

115938. No. 386. *Kasipul* or *Kola*. Fruit buckskin pink, up to 18 inches long, tapering to the blossom end, smooth except for the rather conspicuous ribs.

115939. No. 431. *Kaddu*. A mixture of probably three local forms, obtained from a farmer.

115940. *DAUCUS CAROTA* L. Apiaceae. Carrot.

No. 389. *Lal gadjas*. A red carrot that grows all the year.

115941. *DURANTA REPENS* L. Verbenaceae. Skyflower.

No. 288. From Poona, March 16, 1936. A very handsome shrub used for hedges; the racemes of purple flowers are followed by orange fruits about one-half inch in diameter.

For previous introduction see 112087.

115942. *HIBISCUS SABDARIFFA* L. Malvaceae. Roselle.

No. 408. *Patua*. From Agra, United Provinces, March 28, 1936. A stout annual 5 to 7 feet high; the fruiting calyxes are used for jellies.

For previous introduction see 114957.

115943. *LACTUCA SATIVA* L. Cichoriaceae. Garden lettuce.

No. 400. *Salat*. From Agra, United Provinces, March 28, 1936. Probably naturalized. Used fresh and cooked.

115944 to 115946. *LAGENARIA LEUCANTHA* (Duchesne) Rusby. Cucurbitaceae. Calabash gourd.

115944. No. 356. *Dudhya*. From Bombay, March 20, 1936. Fruits rounded oblong, not so prominently necked as the bottle gourd. Used as a vegetable.

115945. No. 392. *Ghahiya* or *Loki*. From Agra, United Provinces, May 27, 1936. Fruit bottle-shaped, sold immature on the market, about 2 inches long and pale green. Used for curries.

115946. No. 427. From Agra, United Provinces, March 29, 1936. Said to be a rounded form, used for food while immature.

115947. *LUFFA ACUTANGULA* (L.) Roxb. Cucurbitaceae. Singkwa towelgourd.

No. 436. *Turi*. From Agra, United Provinces, March 29, 1936. Young fruits eaten.

For previous introduction see 114963.

115873 to 115973—Continued.

115948 to 115950. *LUFFA CYLINDRICA* (L.)
Roemer. Cucurbitaceae.

Suakwa towelgourd.

Young fruits eaten cooked; mature fruit fibers used as sponges.

For previous introduction see 114964.

115948. No. 425. *Turai*. From Agra, United Provinces, March 29, 1936.

115949. No. 357. *Ghi turai* or *Gosara*. From Bombay, March 20, 1936.

115950. No. 426. *Turai*. From Agra, United Provinces, March 29, 1936.

115951. *LYCOPERSICON ESCULENTUM* Mill. Solanaceae. **Tomato.**

No. 383. From Agra, United Provinces, March 24, 1936. Fruits red, round to laterally elongate, up to 3 inches in diameter. Probably naturalized.

115952. *MOMORDICA CHARANTIA* L. Cucurbitaceae. **Balsam-pear.**

No. 430. *Karela*. From Agra, United Provinces, March 29, 1936. Fruits bitter, eaten fried; considered medicinal and used in various ways.

115953. *MORUS* sp. Moraceae.

No. 388. From Agra, United Provinces, March 27, 1936. Tree up to 35 feet high, well-formed, with large shiny dark-green leaves. Fruits red-purple, acid, up to 2 inches long and one-fourth of an inch in diameter.

115954. *PHASOLUS AUREUS* Roxb. Fabaceae. **Mung bean.**

No. 366. From Jalgaon, Khandesh, Bombay Presidency, March 21, 1936. Dry beans popular as "split peas," also used as fodder.

115955 to 115958. *RAPHANUS SATIVUS* L. Brassicaceae. **Radish.**

From Agra, United Provinces, March 27 to 29, 1936.

115955. No. 393. *Fezabad Muli*. Leaves said to be small, root about 18 inches long, the upper fourth green and the rest white. Said to grow all year.

115956. No. 396. *Muli*. A form with large leaves; root white, 18 inches long; said to grow the year round. Both leaves and roots are eaten.

115957. No. 413. *Muli*.

115958. No. 438. *Sengar*. Used as vegetable in all of its parts, especially the elongated seed pods.

115959. *RUMEX VESICARIUS* L. Polygonaceae.

No. 355. *Chuka bhaji*. From Bombay, March 20, 1936. Leaves used as a potherb.

115960. *SOJA MAX* (L.) Piper. Fabaceae. **Soybean.**

No. 358. From Bombay, March 20, 1936. Dry beans used as food; the plant and pods used as fodder.

115961 to 115964. *SOLANUM MELONGENA* L. Solanaceae. **Eggplant.**

115961. No. 370. From Jalgaon, Khandesh, Bombay Presidency, March 21, 1936. Fruits yellow, faintly marked with purple, very seedy, 1½ inches in diameter, somewhat elongated.

115873 to 115973—Continued.

115962. No. 434. *Sufed Brinjal*. From Agra, United Provinces, March 29, 1936. Fruit white, rounded, about 4 inches long; considered very good.

115963. No. 442. *Bhatiya bengan*. From Agra, United Provinces, March 29, 1936. Fruit said to be purple-black, rounded, and 3 inches in diameter.

115964. No. 364. *Wanga*. From Jalgaon, Khandesh, Bombay Presidency, March 21, 1936. Fruit yellow to gold, rounded, and 4 inches in diameter.

115965. *SPINACIA OLERACEA* L. Chenopodiaceae. **Common spinach.**

No. 415. *Palag*. From Agra, United Provinces, March 29, 1936. A potherb.

115966 and 115967. *TRICHOSANTHES ANGUINA* L. Cucurbitaceae. **Snakegourd.**

From Agra, United Provinces, March 28 and 29, 1936.

For previous introduction see 115035.

115966. No. 406. *Chachera*. Said to grow to 10 feet and to be a strain from the Bombay region.

115967. No. 443. *Chachinda*.

115968. *VICIA FABA* L. Fabaceae. **Broadbean.**

No. 412. *Bagala*. From Agra, United Provinces, March 28, 1936. A forage crop.

115969 to 115972. *VIGNA* spp. Fabaceae.

115969. *VIGNA SESQUIPEDALIS* (L.) Fr. wirth. **Asparagus-bean.**

No. 395. *Lobia*. From Agra, United Provinces, March 27, 1936. A strong-growing vine; the green pods and seeds are used as food.

115970. *VIGNA SINENSIS* (Torner) Savi. **Cowpea.**

No. 405. *Lamas*. From Agra, United Provinces, March 28, 1936. Pods 6 inches long, much esteemed as a green vegetable.

115971. *VIGNA SINENSIS* (Torner) Savi. **Cowpea.**

No. 359. *Chawl*. From Bombay, March 20, 1936. Pods and dry beans eaten.

115972. *VIGNA* sp.

No. 441. *Lobia*. From Agra, United Provinces, March 29, 1936. A mixture of varieties of which the green pods are eaten.

115973. *WRIGHTIA TINCTORIA* R. Br. Apocynaceae.

No. 354. From Kaligan, Bombay Presidency, March 18, 1936. A small bushy tree about 8 feet high, with opposite elliptic lanceolate leaves 3 to 5 inches long and large cymes of small white flowers. Native to central and eastern India.

115974. *BETULA CORYLIFOLIA* Regel and Maxim. Betulaceae. **Birch.**

From Japan. Seeds presented by Dr. T. Nakai, Director, Botanical Garden of the Imperial University, Tokyo. Received May 22, 1936.

This is allied to the river birch (*Betula nigra*) of the eastern United States. The

115974—Continued.

coarsely dentate leaves are broadly elliptic or obovate $1\frac{3}{4}$ to $2\frac{1}{2}$ inches long, and silky hairy on the veins beneath. Native to Japan.

115975. DELPHINIUM CASHMIRIANUM
Royle. Ranunculaceae.
Cashmere larkspur.

From the Netherlands. Seeds presented by Dr. V. J. Koningsberger, Director, Botanic Garden, Utrecht. Received May 23, 1936.

For previous introduction and description see 114587.

115976 to 115992.

From India. Seeds presented by G. Ghose & Co., Darjeeling. Received May 18, 1936.

115976. CORTIA HOOKERI C. B. Clarke.
Apiaceae.

A stemless herbaceous perennial with a rosette of three to four pinnate leaves, the ultimate segments linear and about one-fourth inch long. The white or purplish flowers are borne in sessile umbels which are up to 8 inches long and form a dense mass over the crown of the plant. It is native to the Sikkim region in India.

For previous introduction see 99729.

115977. CREPIS GLOMERATA (Decaisne)
Benth. and Hook. Cichoriaceae.

A herbaceous perennial up to 6 inches high, with variable foliage and many densely crowded heads of yellow flowers. Native to the Himalayas between 13,000 and 17,000 feet altitude.

For previous introduction see 111042.

115978. CYANANTHUS sp. Campanulaceae.

115979. GAULTHERIA TRICHOPHYLLA Royle.
Ericaceae.

A low evergreen shrub of densely tufted habit, 3 to 6 inches high, spreading by means of underground shoots; the slender wiry bristly stems are densely covered with small leaves. The narrow oblong, stalkless leaves, one-fourth inch long and about one-eighth inch wide, are smooth on both surfaces but bristly on the margins, glossy dark green above and pale beneath. The solitary bell-shaped pink flowers are borne in the leaf axils and are followed by blue-black fruits. Native to the Himalayas up to 13,000 feet altitude.

For previous introduction see 100551.

115980. GENTIANA ORNATA (G. Don) Wall.
Gentianaceae.

A perennial gentian with many short decumbent stems and solitary, terminal whitish or turquoise-blue flowers over an inch long. Native to the Himalayas at altitudes of 11,000 to 15,000 feet.

115981. GERANIUM NEPALENSE Sweet.
Geraniaceae.

A procumbent perennial about 6 inches high, with cordate deeply five-lobed leaves and bright-pink or red flowers. Native to Nepal.

115982. LILIUM NEPALENSE D. Don. Lilia-
ceae. Lily.

A showy lily, native to the central Himalayas, with a slender erect stem 2 to 3 feet long, leafy to the inflorescence. The glossy bright-green leaves, 4 to 6 inches long, are oblong-lanceolate and

115976 to 115992—Continued.

five-ribbed. The flowers, 4 to 5 inches long, are greenish yellow outside and yellow within, and flushed, except in the upper third, with purplish black. The oblanccolate segments are reflexed only in the upper half. The purplish-black filaments bear yellow anthers nearly an inch long.

For previous introduction see 92408.

115983. LILIUM WALLICHIANUM Schult. f.
Liliaceae. Wallich lily.

A lily 4 to 6 feet high, with linear leaves 6 to 9 inches long and usually solitary, creamy, waxy-white, fragrant flowers 9 inches long which are golden yellow at the base inside and green outside.

For previous introduction see 112750.

115984. PRIMULA STUARTII Wall. Primula-
ceae. Primrose.

A mealy or quite glabrous perennial herb, native throughout the alpine and subalpine Himalayas of India and Tibet at altitudes between 12,000 and 16,000 feet. The coriaceous oblanceolate leaves with entire or crenulate margins are 4 to 10 inches long and the scapes, 12 to 18 inches high, bear loose umbels of light-yellow, drooping flowers.

For previous introduction see 102325.

115985. RHEUM NOBILE Hook. f. and
Thoms. Polygonaceae. Rhubarb.

A handsome herbaceous plant, with a stem 3 to 4 feet high and as thick as the wrist at the base. It is found in the inner ranges of the Sikkim Himalayas at altitudes between 13,000 and 15,000 feet. The root resembles that of the common rhubarb, but is spongy and inert. The acid stems are eaten both boiled and raw, and the dried leaves afford a substitute for tobacco.

For previous introduction see 39050.

115986. ROSA MACROPHYLLA Lindl. Rosa-
ceae. Bigleaf rose.

A large, nearly thornless shrub, native to the temperate Himalayas up to 10,000 feet altitude. The compound leaves have 9 to 11 oblong to ovate leaflets, 1 to 2 inches long, pubescent beneath, and the red flowers, 2 inches across, in clusters of one to three, are followed by oblong-ovoid red fruits which are sometimes 2 inches long.

For previous introduction see 102781.

115987. RUBUS ELLIPTICUS J. E. Smith.
Rosaceae. Yellow Himalayan raspberry.

For previous introduction and description see 115011.

115988. SAUSSUREA GOSSIPIPHORA D. Don.
Asteraceae.

A curious perennial over a foot high, found in the Himalayas in poor soil among limestone rocks between 14,000 and 15,000 feet altitude. The plant grows as a white woolly mass with linear-lanceolate basal leaves. The oblong, densely cottony, bluish flower heads are buried among cottony scales.

For previous introduction see 111081.

115989. SAXIFRAGA sp. Saxifragaceae.

Received under the name "latifolia," a name of uncertain status.

115976 to 115992—Continued.

115990. *SEDUM HIMALENSE* D. Don. Cras-sulaceae.

A Himalayan sedum with stems 4 to 14 inches high, loosely intricate, narrow obovate or lanceolate leaves, and leafy cymes of dark-purple flowers.

115991. *SENECIO RETUSUS* (DC.) Wall. Asteraceae. Groundsel.

A perennial herb 12 to 18 inches high and 8 inches across, native to the slopes of the Himalayas at Nepal and Sikkim at altitudes of 12,000 to 15,000 feet. The toothed leaves vary from reniform at the base to oblong-lanceolate at the top of the plant. The yellow flower heads, 1 to 2 inches across, are solitary or two to eight in a simple terminal raceme.

For previous introduction see 102329.

115992. *SPIRAEA BELLA* Sims. Rosaceae. Himalayan spirea.

A beautiful hardy shrub, native to Nepal, continuing in flower from May until the end of the summer. It may be increased by layers or seeds; it flourishes in fresh loamy soil. The lanceolate blue-green leaves and the full terminal clusters of rose-colored flowers make this a striking ornamental.

For previous introduction see 49658.

115993 to 116012. *NICOTIANA TABACUM* L. Solanaceae. Common tobacco.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Numbered in May 1936.

Cultivated tobacco.

115993. No. 3429. *Numero 5*. Mexico City, August 13, 1935. Purchased in a seed store.

115994. No. 3430. *Virginia*. Mexico City, August 13, 1935. Purchased in a seed store, said to be locally grown from United States seed. May be mixed with other types.

115995. No. 3431. *Maryland*. Mexico City, August 13, 1935. Purchased in a seed store, said to be locally grown. May be mixed with other types.

115996. No. 3553. From Bobedas, half way between Aguascalientes and Pabelon, Aguascalientes, October 5, 1935. Collected from three plants in a field of apparently mixed types.

115997. No. 3558. Probably *Macuchi*. Torreon, Coahuila, October 11, 1935. Sample of seed left over from field planted near the edge of town; the common tobacco of this region.

115998 and 115999. October 1, 1935. From Tepic, Nayarit. Original seed said to have been obtained long ago and cultivated continuously, but not probably mixed with other types.

115998. No. 3575. *Jamaica*.

115999. No. 3576. *Bonanza*.

116000. No. 3577. From Raymundo, Durango, October 18, 1935. Seed from the first year's seed of a Turkish variety obtained in Syria.

116001. No. 3578. Said to be *Virginia*. From Aviles, Durango, October 18, 1936.

116002. No. 3579. *Lagunero*. From Aviles, Durango, October 18, 1935.

115993 to 116012—Continued.

116003. No. 3580. *Cordoba* type. From Coscomatepec, Veracruz, September 29, 1935. Received through the courtesy of the Agula Cigarette Co.

Nos. 116004 to 116008 were collected in the State of Guerrero in September 1935.

116004. No. 3581. From San Miguel Totolapan.

116005. No. 3582. From Pungarabato.

116006. No. 3583. From Pungarabato.

116007. No. 3584. From Tepicac.

116008. No. 3585. From Tepicac.

116009. No. 3586. From Yurécara, September 2, 1935.

Nos. 116010 to 116012 were collected in the State of Michoacan in September 1935.

116010. No. 3587. From Huetamo de Nunez.

116011. No. 3588. From La Pied.

116012. No. 3589. From Tacambaro.

116013 to 116015.

From Argentina. Seeds presented by Silvio Spangenberg, Director Tecnico, Semillero El Milagro, Carreras, through Murray L. Brawner, Buenos Aires. Received May 26, 1936.

116013 and 116014. *LINUM USITATISSIMUM* L. Linaceae. Flax.

116013. No. 11 "*Capa*."

116014. 350 M. A.

116015. *TRITICUM AESTIVUM* L. Poaceae. Common wheat.

38 M. A. B. 04. 27.

116016 to 116067.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received May 18, 1936.

Unless otherwise stated all of this material was collected at Jaipur City from April 2 to 7, 1936.

116016. *ABELMOSCHUS ESCULENTUS* (L.) Moench. Malvaceae. Okra.

No. 477. *Bendi*. Fruits 3 inches long.

116017. *BAUHINIA* sp. Caesalpiniaceae.

No. 496. Said to be a small tree with white flowers.

116018. *BAUHINIA* sp. Caesalpiniaceae.

No. 499. A tree said to have white flowers.

116019. *BAUHINIA* sp. Caesalpiniaceae.

No. 422. *Kachinas*. From Agra, United Provinces, March 29, 1936. A tree about 40 feet high, with fragrant purple flowers. The buds are eaten in Punjab and are somewhat like mushrooms in flavor.

116020. *BRASSICA OLERACEA BOTRYTIS* L. Brassicaceae. Cauliflower.

No. 460. *Phulgobi*. Said to be a very early variety which matures in 60 days. May be an imported variety.

116021. *BRASSICA RAPA* L. Brassicaceae. Turnip.

No. 469. *Lal Shalgum*. Said to be the common turnip of this area.

116016 to 116067—Continued.

116022. *CAESALPINIA* sp. *Caesalpinaceae*.

No. 480. *Khair*. An attractive, medium-sized tree whose wood is used in dyeing and tanning. The gum also is used.

116023 to 116028. *CAPSICUM ANNUUM* L. *Solanaceae*. Common redpepper.

116023. No. 457. *Mirch*. Said to be 6 inches long and 1 inch in diameter, of medium pungency.

116024. No. 491. *Mirch*. A mild pepper, 3 inches long by three-fourths of an inch in diameter.

116025. No. 453. *Mirch*. Fruits to 3 inches long with indented nose, 1½ inches in diameter; mild but not without pungency.

116026. No. 494. *Patna mirch*. Said to be a hot pepper from Patna.

116027. No. 492. *Mirch*. A mild pepper with pods like No. 491 (P. I. 116024) but broader.

116028. No. 495. *Mirch*. Apparently the local pepper, but larger than any seen before. Blunt-nosed type, mild, 4 inches long by 2 inches across.

116029. *CASSIA FISTULA* L. *Caesalpinaceae*. Golden-shower.

No. 500. For previous introduction see 114889.

116030. *CASSIA SIAMEA* Lam. *Caesalpinaceae*. Siamese senna.

No. 485. A large tropical tree with bluish, pinnate leaves up to a foot long. In the late summer and early autumn this tree bears axillary and terminal panicles of attractive bright-yellow flowers. It is native to southern India and Malaysia.

For previous introduction see 61481.

116031. *CITRULLUS VULGARIS* Schrad. *Cucurbitaceae*. Watermelon.

No. 471. *Terbuza*. A mixture of red-fleshed variety and a yellow-fleshed variety.

116032. *CUCUMIS SATIVUS* L. *Cucurbitaceae*. Cucumber.

No. 458. *Kakri*. Fruits said to be 2 feet long and 4 inches in diameter; yellow when ripe and used both fresh and stewed.

116033. *CUCURBITA MOSCHATA* Duchesne. *Cucurbitaceae*. Cushaw.

No. 446. *Kaddu*. From Agra, United Provinces, March 31, 1936. Fruit faintly ribbed, orange-pink, flattened, 14 inches across and 9 inches long; flesh salmon colored.

116034. *CYAMOPSIS TETRAGONOLOBA* (L.) Taub. *Fabaceae*. Guar.

No. 459. *Gowar*. Green pods edible, dry pods not eaten.

116035. *DAUCUS CAROTA* L. *Apiaceae*. Carrot.

No. 463. *Kala gadjar*. Roots purple black outside with white or yellow flesh.

116036. *DOLICHOS LABLAB* L. *Fabaceae*. Hyacinth-bean.

No. 421. *Sem*. From Agra, United Provinces, March 29, 1936. A form with green pods which are used for food while young and tender.

116016 to 116067—Continued.

116037. *DOLICHOS LABLAB* L. *Fabaceae*. Hyacinth-bean.

No. 466. *Ballal*. A climbing bean. The pods are eaten green, but are much stronger in flavor than our string beans.

116038. *ERYTHRINA VARIEGATA* Stickr. *Fabaceae*. Coraltree.

No. 481. *Dhaldak*. A tree 20 to 30 feet high, native throughout India, with clusters of large bright-red flowers which appear before the leaves. The pods are 4 to 8 inches long and contain dark carmine seeds.

For previous introduction see 106924.

116039. *HOLOPTELEA INTEGRIFOLIA* (Roxb.) Planch. *Ulmaceae*.

No. 483. A large spreading tree, closely related to the elms, which grows in dry sandy soils at low altitudes in northern and central India. Its chief use appears to be as a timber tree; the wood is yellowish gray and moderately hard and is used for general construction.

For previous introduction see 59680.

116040 and 116041. *HORDEUM VULGARE* L. *Poaceae*. Barley.

Jau. From Agra, United Provinces, March 29, 1936. Collected near the southern limit of the crop.

116040. No. 444. 116041. No. 449.

116042. *IPOMOEA CAIRICA* (L.) Sweet. *Convolvulaceae*. Morning-glory.

No. 461. Flowers large, dark-blue, produced abundantly.

For previous introduction see 60552.

116043. *JACARANDA MIMOSIFOLIA* Don. *Bignoniaceae*. Green-ebony.

No. 451. A tree up to 50 feet high, with very attractive blue-purple flowers, borne in large racemes before the leaves.

For previous introduction see 30387.

116044 and 116045. *LAGENARIA LEUCANTHA* (Duchesne) Rusby. *Cucurbitaceae*. Calabash gourd.

116044. No. 473. *Ghiya*. Fruits said to be larger than No. 464 (P. I. 116045), and the vine does well only when allowed to climb.

116045. No. 464. *Ghiya*. Said to grow 3 feet, bottle-shaped. Adapted to terrestrial training.

116046. *LUFFA ACUTANGULA* (L.) Roxb. *Cucurbitaceae*. Singkwa towelgourd.

No. 470. *Tori*. Fruits ridged and winged; eaten green.

For previous introduction and description see 115497.

116047. *LYCOPERSICON ESCULENTUM* Mill. *Solanaceae*. Tomato.

No. 467. *Termattes*. Small elliptical flattened fruits, not like the ordinary "wild fruits." Said to bear all summer.

116048. *MALVA SYLVESTRIS* L. *Malvaceae*.

No. 501.

116049. *MILLETTIA OVALIFOLIA* Kurz. *Fabaceae*.

No. 419. From Agra, United Provinces, March 29, 1936. A medium-sized tree

116016 to 116067—Continued.

with odd-pinnate leaves 4 to 18 inches long and slender axillary racemes of small fragrant blue flowers.

116050 and 116051. *MIMUSOPS ELENGI* L. Sapotaceae.

A small handsome evergreen tree, native to India, with dark-green shining leaves and an abundance of long acorn-shaped fruits that turn red when ripe.

For previous introduction see 67580.

116050. No. 497. *Maulsari*.

116051. No. 452. *Bontseli*.

116052. *MOMORDICA CHARANTIA* L. Cucurbitaceae. **Balsam-pear.**

No. 456. *Karela*.

For previous introduction and description see 115952.

116053. *MORINGA OLEIFERA* Lam. Moringaceae. **Horseradish-tree.**

No. 479.

For previous introduction and description see 115483.

116054. *MORUS* sp. Moraceae.

No. 503. *Safed shahtut*. Fruits yellow, to 2 inches long, peach scented, very sweet, and of good flavor.

116055. *MORUS* sp. Moraceae.

No. 502. *Kala Shahtut*. Fruit purple red to 1½ inches long, of a pleasant acid flavor.

116056. *PISUM SATIVUM* L. Fabaceae. **Pea.**

No. 475. *Matar*. A mixture of two native forms (red and white flowers).

116057. *PROSOPIS CHILENSIS* (Molina) Stuntz. Mimosaceae. **Algaroba.**

No. 546. *Babul*. From Bikaner, Bikaner State, April 13, 1936. A large tree of attractive habit and foliage.

116058. *RAPHANUS SATIVUS* L. Brassicaceae. **Radish.**

No. 465. *Arak muli*. Seed pods and leaves used as a potherb. Roots of no use.

116059. *RAPHANUS SATIVUS* L. Brassicaceae. **Radish.**

No. 476. *Muli*. Root solid, long, white, usually stewed; plants are vigorous.

116060. *SANTALUM ALBUM* L. Santalaceae. **Sandalwood.**

No. 490. A small evergreen semiparasitic tree, native to the drier regions of southern India, and cultivated in northern India for the sake of the white or citron-colored wood which, when dried, is sweet scented and esteemed as a perfume. The acacia is a frequent host of this tree.

For previous introduction see 66153.

116061 to 116064. *SOLANUM MELONGENA* L. Solanaceae. **Eggplant.**

116061. No. 424. From Agra, United Provinces, March 29, 1936. Fruits ovoid, 5 inches long and deep purple. The plants are strong and very prolific.

116062. No. 462. *Gol bengan*. Fruit said to be globose, black-purple, up to 5 inches in diameter.

116016 to 116067—Continued.

116063. No. 472. *Rutlami bengan*. Fruit said to be globose, purple-black, up to 6 inches in diameter.

116064. No. 474. *Bengan*. Fruits black-purple, elongate, and said to grow 12 inches long.

116065. *TERMINALIA ARJUNA* (Roxb.) Wight and Arn. Combretaceae.

No. 487. *Ayum*. An attractive evergreen with the habit of the American elm.

116066. *TRITICUM AESTIVUM* L. Poaceae. **Common wheat.**

No. 445. *Gahun*. From Agra, United Provinces, March 31, 1936. From the market; said to have come from the Punjab.

116067. *VIGNA SINENSIS* (Torner) Savi. Fabaceae. **Cowpea.**

No. 468. *Chaonli*. Pods said to be about 4 inches long. Both green pods and the dry seeds are eaten.

116068. *RICINUS COMMUNIS* L. Euphorbiaceae. **Castor-bean.**

From Cuba. Seeds presented by A. Martinez, Havana. Received May 1, 1936.

116069. *DIGITALIS FERRUGINEA* L. Scrophulariaceae.

From the Union of Soviet Socialist Republics. Seeds presented by the Introduction Garden, Sukhum, Transcaucasus, through the Institution of Plant Industry, Leningrad. Received May 11, 1936.

A biennial or perennial, 5 to 6 feet high, densely leafy, with long dense racemes of rusty-red flowers. Native to southern Europe.

For previous introduction see 109284.

116070 to 116077. *NICOTIANA TABACUM* L. Solanaceae. **Common tobacco.**

From Costa Rica. Seeds presented by C. H. Ballou, at the request of W. A. Archer, Bureau of Plant Industry. Received June 3, 1936.

116070. *Cien hojas*.

116071. *Copan*.

116072. *Desconocido*.

116073. *Desgajador*.

116074. *Palmira blanco*.

116075. *Palmira negro*.

116076. *Palmiron*.

116077. *Vuelta abajo*.

116078 to 116085. *NICOTIANA TABACUM* L. Solanaceae. **Common tobacco.**

From Honduras. Seeds presented by Antonio Fernandez, Santa Rose de Copan, through the American consul at Tegucigalpa, at the request of W. A. Archer, Bureau of Plant Industry. Received June 6, 1936.

116078. *Chichicaste*, a pure strain.

116079. *Copanico flor blanco*, a pure strain.

116080. *Copanico flor roja*, a pure strain.

116081. *Gigante*, a pure strain.

116078 to 116085—Continued.

116082. *Negro*, a pure strain.
 116083. *Pina*, a pure strain.
 116084. Collected at Santa Rita.
 116085. Collected at San Nicolas.

116086. *SACCHARUM* sp. Poaceae.

From Papete, New Hebrides Islands. Rooted cuttings. Received June 8, 1936.

Received under the name "robustum," a name not properly published.

116087. *NICOTIANA TABACUM* L. Solanaceae. Common tobacco.

From Honduras. Seeds presented by Ricardo Aparicio, Tuxtepec, Oaxaca, Mexico, through the American consul at Tegucigalpa, at the request of W. A. Archer, Bureau of Plant Industry. Received June 9, 1936.

Chichicaste (Honduras); *Burro* (Cuba).

116088. *MANGIFERA INDICA* L. Anacardiaceae. Mango.

From the Canal Zone. Plants presented by J. E. Higgins, Canal Zone Experiment Gardens, Balboa Heights. Received June 10, 1936.

Fairchild mango.

116089. *CHIMONOBAMBUSA MARMOREA* (Mitf.) Makino. (*Arundinaria marmorata* (Mitf.) Makino). Poaceae. Bamboo.

From England. Plant presented by the Royal Botanic Gardens, Kew, Surrey. Received June 9, 1936.

A small bamboo growing 3 feet or more high. The internodes of the culms are very short with three branches at each node, two short and one long. The bright-green, nearly sessile leaves are up to 4½ inches long by three-eighths to five-eighths of an inch wide, rough on both edges, and with tessellated venations. The degree of hardness of the plant is not definitely known, though it is reported to have withstood a temperature of about 8° F. without injury in England.

For previous introduction see 90301.

116090 to 116093. *BETA* spp. Chenopodiaceae.

From the Union of Soviet Socialist Republics. Seeds presented by the Institute of Plant Industry, Leningrad. Received June 17, 1936.

116090 and 116091. *BETA LOMATOGONA* Fisch. and Mey.

116090. No. 1. From Armenia.

116091. No. 2. From Azerbaijan.

116092 and 116093. *BETA MACRORHIZA* Stev. A perennial, native to the Caucasus region.

116092. No. 6. Near Yak, Azerbaijan.

116093. No. 7. Near Kriz, Azerbaijan.

116094 to 116096. *BETA TRIGYNA* Waldst. and Kit.

For previous introduction see 114606.

116094. No. 4. From District Ketaulu, Arger, Armenia.

116090 to 116098—Continued.

116095. No. 3. From District Elenoone, Armenia.

116096. No. 5. From Crimea.

116097 and 116098. *BETA VULGARIS* L. Common beet.

116097. No. 9. From Azerbaijan.

116098. No. 8. From Azerbaijan.

116099 to 116114.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received June 19, 1936.

Unless otherwise stated, all of this material was collected April 11 and 12, 1936, at Bikaner, Bikaner State.

116099. *TERMINALIA BELLERICA* (Gaertn.) Roxb. Combretaceae.

No. 486. From Jaipur City, April 7, 1936. The small round fruits of this tropical Indian tree are exported for tanning purposes under the name *myrobalans*. The yellowish-gray wood is used for general construction, and the tree also has merit as a shade tree for avenues, with its huge buttressed trunk and low horizontal branches.

For previous introduction see 97985.

116100. *ALLIUM CEPA* L. Liliaceae. Onion.

No. 516. *Peyaz*. Said to be a round red onion.

116101. *CITRULLUS VULGARIS* Schrad. Cucurbitaceae. Watermelon.

No. 513.

116102. *CUCUMIS MELO* L. Cucurbitaceae. Muskmelon.

No. 514. Fruit is dried; later the seeds are crushed and cooked with vegetables.

116103. *CUCUMIS SATIVUS* L. Cucurbitaceae. Cucumber.

No. 515. *Kakri*. A mixed sample.

116104. *CUCURBITA MOSCHATA* Duchesne. Cucurbitaceae. Cushaw.

No. 447. *Kaddu*. From Jaipur City, Jaipur State, April 1, 1936. Fruit prominently ribbed, 2 feet long, pointed at the blossom end, mottled pink, brown, and dark green; flesh salmon.

116105. *CYAMOPSIS TETRAGONOLOBIA* (L.) Taub. Fabaceae. Guar.

No. 521. *Gowas*. Used as food while green, but the ripe seeds are used as cattle feed.

116106. *DAUCUS CAROTA* L. Apiaceae. Carrot.

No. 517. *Lal gajar*. Said to be a red-fleshed form.

116107. *HORDEUM VULGARE* L. Poaceae. Barley.

No. 450. *Jau*. From Jaipur City, April 2, 1936.

116108. *LUFFA CYLINDRICA* (L.) Roemer. Cucurbitaceae. *Suakwa* towelgourd.

No. 530. Fruit 18 inches long, smooth, with no trace of ribs.

116109. *PENNISETUM GLAUCUM* (L.) R. Br. Poaceae. Pearl millet.

No. 523. *Bajet*. Used for bread; also cooked to a paste and squeezed through

116099 to 116114—Continued.

a strainer; the fine vermicellilike strings are cooked in oil.

116110. *PHASEOLUS ACONITIFOLIUS* Jacq. Fabaceae. Moth bean.

No. 518. A dry-land crop.

116111. *RAPHANUS SATIVUS* L. Brassicaceae. Radish.

No. 519. *Muli*. A long white root, grown under irrigation.

116112. *RUMEX VESICARIUS* L. Polygonaceae.

No. 510. *Ohuka*. From Jaipur City, Jaipur State, April 10, 1936. A potherb, widely cultivated in India.

116113. *SESAMUM ORIENTALE* L. Pedaliaceae. Sesame.

No. 522. *Til*. An oil crop, valued as butter, also used for the making of sweets.

116114. *ZIZIPHUS MAURITIANA* Lam. Rhamnaceae. Indian jujube.

No. 524. *Bhor*. Dried fruits sold in the bazar.

For previous introduction see 115525.

116115 to 116157.

From China. Seeds and bulbs presented by the Botanic Garden Division of the Sun Yat-Sen Tomb and Memorial Park Commission, Nanking. Received May 12, 1936.

Unless otherwise stated, the material presented was seeds.

116115. *ALLIUM MACROSTEMON* Bunge. Liliaceae.

No. 24. Bulblets of an allium with linear leaves and lax umbels of three to many small rose-colored flowers. Native to northern China.

116116. *ACTINIDIA CORIACEA* (Fin. and Gagn.) Dunn. Dilleniaceae.

No. 12.

116117. *BETA VULGARIS* L. Chenopodiaceae. Common beet.

No. 85.

116118. *BRASSICA OLERACEA* L. Brassicaceae. Wild cabbage.

No. 93. For previous introduction see 65590.

116119. *CARPINUS LAXIFLORA* Blume. Betulaceae. Hornbeam.

No. 136. A tree native to Japan, 40 to 50 feet high. The obliquely elliptic to cordate, long-pointed leaves are 2 to 3 inches long and have serrate margins. The inconspicuous flowers are borne in loose catkins 2 to 3 inches long.

For previous introduction see 98310.

116120. *CARPINUS TURZANINOVII* Hance. Betulaceae. Hornbeam.

No. 137. A hardy shrubby tree with oval, sharp-pointed leaves 1 to 2 inches long. It is said to resemble *Carpinus polycneura*, also a Chinese species. Native to Hopei Province, China.

For previous introduction see 93113.

116121 to 116123. *CASTANOPSIS* spp. Fagaceae.

116121. *CASTANOPSIS CUSPIDATA* (Thunb.) Schottky.

No. 150.

116115 to 116157—Continued.

116122. *CASTANOPSIS EYREI* (Champ.) Tutch.

No. 151. An evergreen tree about 30 feet high. Native to southern China.

116123. *CASTANOPSIS SCLEROPHYLLA* (Lindl.) Schottky.

No. 152.

116124. *CELASTRUS GEMMATA* Loes. Celastraceae.

No. 158. A woody climber up to 18 feet long, with ovate-elliptic leaves 2 to 4 inches long and cymes of large golden-yellow fruits. Native to central and western China.

116125. *CELTIS BIONDII* Pampan. Ulmaceae. Hackberry.

No. 161. A stout-branched hackberry from western China, with rather stiff, broadly ovate, long-acuminate leaves 2 to 3 inches long and small black fruits.

For previous introduction see 105313.

116126. *CELTIS BUNGEANA* Blume. Ulmaceae. Hackberry.

No. 162.

116127. *COIX LACRYMA-JOBI* L. Poaceae. Jobs-tears.

No. 203.

116128. *CORNUS WALTERI* Wangerin. Cornaceae. Dogwood.

No. 220. A tree 40 feet high, with white flowers and blue-black fruits, growing in woodlands at 900 to 2,000 feet altitude in western Hupeh, China.

For previous introduction see 65767.

116129. *DAUCUS CAROTA* L. Apiaceae. Carrot.

No. 246.

116130 to 116133. *LACTUCA* spp. Cichoriaceae. Lettuce.

116130. *LACTUCA CHINENSIS* (Thunb.) Makino.

No. 389. An ornamental lettuce with entire to pinnatisect, linear or sublinear-ovate leaves and lax corymbs of yellow or white flower heads. Native to Japan.

116131. *LACTUCA INDICA* L.

No. 390. A tall erect annual native to Japan.

116132. *LACTUCA SATIVA* L. Garden lettuce.

No. 391.

116133. *LACTUCA CHINENSIS* (Thunb.) Makino.

No. 392. For previous introduction and description see 116130.

116134 to 116139. *LESPEDEZA* spp. Fabaceae. Bushclover.

116134. *LESPEDEZA BUERGEBI* Miquel.

No. 397. A low, bushy, hardy perennial with elliptic-ovate leaflets and white or purple flowers about one-third inch long. It is of ornamental value and is also used as fodder.

For previous introduction see 9230.

116135. *LESPEDEZA DAVIDI* Franch.

No. 398. A shrub about 6 feet high, with ovate or obovate leathery leaflets

116115 to 116157—Continued.

and many reddish-purple flowers in axillary or terminal racemes. Native to Kiangsi Province, China.

116136. *LESPEDEZA FLORIBUNDA* Bunge.
No. 399.

116137. *LESPEDEZA FORMOSA* (Vogel)
Koehne. Purple bushclover.

No. 400. An erect, semishrubby plant 6 to 12 feet high, with trifoliate leaves of oblong leaflets and racemes of rose-purple flowers. Native to Chosen.

For previous introduction see 111205.

116138. *LESPEDEZA STRIATA* (Thunb.)
Hook. and Arn.
No. 402.

116139. *LESPEDEZA TOMENTOSA* (Thunb.)
Sleb.
No. 403.

116140. *LITHOCARPUS GLABRA* (Thunb.)
Rehd. Fagaceae.

No. 424. An evergreen tree with oblong, entire leaves 3 to 6 inches long and small nuts in spikes. Native to Japan.

116141 to 116146. *NICOTIANA* spp. Solanaceae.
Tobacco.

116141. *NICOTIANA ACUTIFLORA* A. St.
Hil.

No. 490. A herbaceous perennial tobacco related to *Nicotiana longiflora*. Native to southern South America.

116142. *NICOTIANA ALATA GRANDIFLORA*
Comes.
No. 491.

116143. *NICOTIANA RUSTICA* L.
Aztec tobacco.

No. 493.

116144. *NICOTIANA TABACUM* L.
Common tobacco.

No. 494.

116145. *NICOTIANA TABACUM MACROPHYLLA* Dunal.

No. 492.

116146. *NICOTIANA TABACUM MACROPHYLLA* Dunal.

No. 495.

116147. *POA ACROLEUCA* Steud. Poaceae.

No. 560. An annual grass, native to Japan.

116148. *QUERCUS FABRI* Hance. Fabaceae.

No. 603. A small evergreen oak of the Prinus section, up to 45 feet high, with obovate to oblong leaves to 7 inches long, sinuate and shallow lobed. Native to China.

116149 to 116151. *RUBUS* spp. Rosaceae.

16149. *RUBUS BUERGRI* Miquel.

No. 633.

116150. *RUBUS LAMBERTIANUS* Seringe.

No. 634.

116151. *RUBUS TEPHRODES* Hance.

No. 637. A straggling shrub with branches about 15 feet long, terminal clusters of small pink flowers, and

116115 to 116157—Continued.

rather large black fruits. Closely related to *Rubus chroosepalus*. Native to Kiangsi Province, China.

For previous introduction see 113821.

116152 to 116155. *SOLANUM* spp. Solanaceae.

116152. *SOLANUM ACULEATISSIMUM* Jacq.

No. 691. A spiny undershrub, 1 to 2 feet high, widely distributed in the Tropics. The few-flowered axillary cymes of snow-white flowers 1 inch across are followed by globose orange or yellow fruits often 2 inches in diameter.

For previous introduction see 46028.

116153. *SOLANUM AETHIOPICUM* L.

No. 692. A vigorous ornamental plant with white flowers and small fruits which resemble tomatoes in shape.

For previous introduction see 91546.

116154. *SOLANUM DULCAMARA* L.

No. 693.

116155. *SOLANUM NIGRUM* L.
Black nightshade.

No. 694.

116156. *STYRAX FABERI* Perkins. Styracaceae.

No. 721. A shrub or tree with membranous, obovate to oblong leaves about 2 to 3 inches long and numerous showy yellowish flowers in axillary or terminal clusters. Native to eastern China.

116157. *STYRAX PHILADELPHOIDES* Perkins.

No. 722. A large shrub 5 to 6 feet high, with thin narrowly oblong, hairy leaves 1 to 3 inches long and white flowers half an inch long, in small axillary and terminal racemes. Native to eastern China.

For previous introduction see 105329.

116158 to 116180. *NICOTIANA* spp. Solanaceae.
Tobacco.

From Peru and Ecuador. Seeds collected by Raymond Stadelman, Bureau of Plant Industry. Received June 4, 1936.

Unless otherwise stated, all of this material was collected in Peru.

116158. *NICOTIANA GLAUCA* R. Grah.
Tree tobacco.

No. 112. *Supai-carcco*. Collected at San Sebastian, 5 kilometers south of Cuzco, 3,300 meters altitude, April 20, 1936.

116159 to 116164. *NICOTIANA TABACUM* L.
Common tobacco.

116159. No. 114. April 21, 1936. A white-flowered form from Macchu-Picchu at 2,100 meters altitude.

116160. No. 115. April 21, 1936. A red-flowered form from Macchu-Picchu at 2,100 meters altitude.

116161. No. 116. April 23, 1936. A red-flowered form from Santa Rosa, Cuzco, at 1,150 meters altitude.

116162. No. 117. April 23, 1936. A white-flowered form from Santa Rosa, Cuzco, at 1,150 meters altitude.

116163. No. 119. April 24, 1936. A red-flowered form from Hacienda Santa Ana, Quillabamba, at 1,025 meters altitude.

116158 to 116180—Continued.

116164. No. 121. April 23, 1936. *Tabaco*, a red-flowered form from Santa Rosa, Cuzco, at 1,150 meters altitude.

116165. *NICOTIANA PANICULATA* L.

No. 122. *Ccamato*. April 25, 1936. From Ollantaytambo. Cuzco, at 2,800 meters altitude. A form with long yellowish flowers.

116166. *NICOTIANA PANICULATA* L.

No. 124. *Ccamato*. April 27, 1936. Collected in the Urubamba Valley between Ollantaytambo and Urubamba at 2,700 meters altitude.

116167 to 116174. *NICOTIANA TABACUM* L.
Common tobacco.

116167. No. 126. April 27, 1936. A pink-flowered form from Urubamba, Yucay Province, at 2,800 meters altitude.

116168. No. 127. April 27, 1936. A pink-flowered form from Coyo, Urubamba, at 2,900 meters altitude.

116169. No. 128. May 1, 1936. From Juliaca, Departamento Puno, at 3,825 meters altitude.

116170. No. 129. May 5, 1936. From Hacienda La Mascota, Provincia Pastaza, Ecuador, at 1,150 meters altitude.

116171. No. 130. May 8, 1936. From the Estanco de Tabaco, Lima.

116172. No. 131. May 8, 1936. From the Estanco de Tabaco, Lima. A white-flowered form.

116173. No. 132. *Ccamato*. April 23, 1936. From Santa Rosa, Cuzco, at 1,150 meters altitude.

116174. No. 133. May 9, 1936. From the Bravo Natural History Museum, Lima.

116175 and 116176. *NICOTIANA LEGUIANA* Macbr.

A tobacco closely related to *Nicotiana tomentosa*; native to Peru and Bolivia.

116175. No. 118. *Ccamato*. From Macchu-Picchu, Cuzco, April 22, 1936, at 2,100 meters altitude.

116176. No. 120. *Ccamato*. From Santa Rosa, Cuzco, April 23, 1936, at 1,150 meters altitude.

116177. *NICOTIANA UNDULATA* Ruiz and Pav.

No. 123. April 25, 1936. From Ollantaytambo, Cuzco, at 2,800 meters altitude.

116178. *NICOTIANA UNDULATA* Ruiz and Pav.

No. 125. April 27, 1936. From Coyo, Urubamba, at 2,900 meters altitude.

116179. *NICOTIANA* sp.

No. 113. *Coama-sayri*. From San Sebastian, 5 kilometers south of Cuzco, at 3,300 meters altitude, April 20, 1936.

116180. *NICOTIANA PANICULATA* L.

No. 111. *Tabaquillo*. From Huasacache, near Arquipa, at 2,300 meters altitude, April 16, 1936.

116181 to 116183. *NICOTIANA TABACUM* L. Solanaceae.

Common tobacco.

From Mexico. Seeds presented through E. W. Eaton, American consul, Durango. Received June 12, 1936.

116181. From San Juan del Rio.

116182. From Santiago Papasquiari. A tobacco which produces well at 5,600 feet altitude.

116183. From Yerbaniis, Durango.

116184 to 116207.

From the Union of Soviet Socialist Republics. Seeds presented by the Director, Botanic Garden, Alma-Ata. Received May 27, 1936.

116184 to 116190. *AGROPYRON* spp. Poaceae.

116184. *AGROPYRON CANINUM* (L.) Beauv. Awned wheatgrass.

For previous introduction see 107869.

116185. *AGROPYRON CRISTATUM* (L.) Gaertn. Crested wheatgrass.

116186. *AGROPYRON DESERTORUM* (Fisch.) Schult.

For previous introduction see 111481.

116187. *AGROPYRON PAUCIFLORUM* (Schwein.) Hitchc.

116188. *AGROPYRON RAMOSUM* (Trin.) Richt.

For previous introduction see 108425.

116189. *AGROPYRON REPENS* (L.) Beauv. Quackgrass.

116190. *AGROPYRON SIBIRICUM* (Willd.) Beauv.

116191. *BERBERIS ILIENSIS* M. Pop. Berberidaceae.

A deciduous shrub with oblong or lanceolate leaves. It is closely related to *Berberis nummularia*. Native to Turkistan.

116192. *BETULA TIANSHANICA* Rupr. Betulaceae.

A small tree with ovate or narrow-ovate leaves about 2 inches long. It is allied to *Betula alba*. Native to Turkistan.

116193. *BETULA PENDULA* Roth. Betulaceae.

A form with purple leaves.

For previous introduction see 91460.

116194. *DELPHINIUM DASYANTHRUM* Kar. and Kir. Ranunculaceae. Larkspur.

A perennial delphinium with simple stems 1 to 2 feet high and terminal clusters of deep-violet flowers. Native to Turkistan.

116195 to 116197. *EREMURUS* spp. Liliaceae.

116195. *EREMURUS ALTAICUS* (Pall.) Stev.

An ornamental desert plant with long linear leaves forming a rosette from which rises a columnar spike of star-shaped, rosy-purple flowers.

For previous introduction see 107913.

116184 to 116207—Continued.

116196. *EREMURUS INDERIENSIS* Regel.

A hardy herbaceous perennial with a rosette of narrow-linear leaves and a raceme of purplish flowers on a scape up to 18 inches high. Native to Turkistan.

For previous introduction see 107526.

116197. *EREMURUS OLGAE* Regel.

For previous introduction and description see 115072.

116198. *PISUM SATIVUM* L. Fabaceae. **Pea.**

Variety *Asiaticum*.

116199 to 116202. *RHEUM* spp. Polygonaceae. **Rhubarb.**116199. *RHEUM RIBES* L.116200. *RHEUM SONGARICUM* Schrenk.116201. *RHEUM WITTROCKII* Lunstroem.116202. *RHEUM* sp.116203 to 116206. *ROSA* spp. Rosaceae. **Rose.**116203. *ROSA PERSICA* Michx. **Persian rose.**

A low straggling shrub 1 to 3 feet high, with simple oval to oblong, glaucous leaves and small yellow flowers. It is native to dry clayey ridges and alkaline loess plains from northern Iran [Persia] to Siberia.

For previous introduction see 31695.

116204. *ROSA SPINOSISSIMA* L. **Scotch rose.**116205. *ROSA BEGGERIANA* Schrenk.

A dense prickly shrub 4 to 8 feet high, with oval or elliptic, bluish or grayish-green leaflets. The flowers in small or large corymbs are white or rarely pink and about 1 inch across, and the fruits are very dark red. Native to northern Iran and Turkistan.

For previous introduction see 91997.

116206. *ROSA* sp.116207. *STIPA KIRGHISORUM* P. Smirn. **Grass.**

A perennial grass up to 2 feet high. Native to Turkistan.

116208. *ARCHONTOPHOENIX ALEXANDRAE* (F. Muell.) Wendl. and Drude. **Phoenicaceae. Palm.**

From the United States Plant Introduction Garden, Coconut Grove, Fla. Plants growing at the garden from seeds collected on the southwest coast of Florida in 1932 by O. F. Cook, Bureau of Plant Industry. Numbered in 1936.

A pinnate-leaved palm 70 to 80 feet high, with leaves several feet long, and lanceolate, usually entire leaflets up to 2 feet in length and whitish beneath. The yellow-green flowers are borne in a cluster about a foot long and are followed by small dry round fruits. It is native to Queensland, Australia.

For previous introduction see 111941.

116209 and 116210. *COCOS NUCIFERA* L. **Phoenicaceae. Coconut.**

From the Canal Zone. Seeds presented by J. E. Higgins, Superintendent, Canal Zone Experiment Gardens, Summit. Received June 10, 1926.

116209. Variety *King*.116210. Variety *Nawast*.116211. *ERYTHRINA ACANTHOCARPA* E. Mey. **Fabaceae.**

From South Australia. Seeds presented by J. Howard Johnson, St. Peters. Received June 12, 1936.

A rigid, wide-spreading shrub, native to South Africa, 4 to 6 feet high and armed with sharp awl-shaped reflexed prickles. The leaves are made up of three elliptical leaflets an inch long. The scarlet flowers, 1 to 2 inches long, are in lateral and terminal racemes and last from 2 to 3 weeks, before the leaves have fully developed. The flowers are followed by twisted prickly pods up to 7 inches long.

For previous introduction see 80251.

116212. *TRITICUM AESTIVUM* L. **Poaceae. Common wheat.**

From Australia. Seeds presented by H. Wenzholz, Director of Plant Breeding, Department of Agriculture, Sydney, New South Wales. Received May 22, 1936.

Variety *Wannon*.

116213 to 116215. *SOJA MAX* (L.) Piper. **Fabaceae. Soybean.**

From India. Seeds presented by the Economic Botanist, Department of Agriculture, Jorhat, Assam. Received May 22, 1936.

116213. *Khasi Rymbaitieh*.116214. *Khasi Rymbai Thohriaw*.116215. *Nepali*, a large variety.

116216 to 116220.

From Morocco. Seeds presented by the Director, Station Centrale de Recherches Agronomiques, Rabat. Received May 26, 1936.

116216. *ABELMOSCHUS ESCULENTUS* (L.) Moench. **Malvaceae. Okra.**116217. *BRASSICA RAPA* L. **Brassicaceae. Turnip.**116218. *DAUCUS CAROTA* L. **Apiaceae. Carrot.**116219. *LYCOPERSICON ESCULENTUM* Mill. **Solanaceae. Tomato.**116220. *RAPHANUS SATIVUS* L. **Brassicaceae. Radish.**116221 to 116236. *TRITICUM AESTIVUM* L. **Poaceae. Common wheat.**

From Australia. Seeds presented by H. Wenzholz, Director of Plant Breeding, Department of Agriculture, Sydney, New South Wales. Received May 23, 1936.

116221. *Argentine*. C. 8681.116222. *Argentine* K 33. C. 9655.

116221 to 116236—Continued.

116223. *Argentine*. C. 9656.
 116224. *Clubhead*. C. 9342.
 116225. *Ford*.
 116226. *Greek 18*. C. 7142.
 116227. *Greek 10*. C. 7135.
 116228. *Minor*. C. 9142.
 116229. *Moche*. C. 9693.
 116230. *Portugal 65*. C. 7897.
 116231. *Portugal 90*. C. 7921.
 116232. *Solid straw Tusca*. C. 10850.
 116233. *Uruguay*. C. 10836.
 116234. *Uruguay*. C. 10835.
 116235. *Uruguay*. C. 10834.
 116236. *Varonne*. C. 6146.

116237 to 116241.

From Mexico. Bulbs and plants purchased from Dr. C. A. Purpus, Zacuapam, Huastuco, Veracruz. Received June 13, 1936.

116237. *CHAMAEDOREA SARTORII* Liebm. Phoenicaceae.

A palm, native to southern Mexico, with a trunk 8 to 15 feet high, covered with the bases of the leaf petioles. The pinnately compound leaves, 3 to 4 feet long, are made up of alternate falcate pinnae 12 inches long, and the ovoid black fruits are less than an inch long.

For previous introduction see 101700.

- 116238 to 116241. *ZEPHYRANTHES* spp. Amaryllidaceae.

Bulbs collected on the higher sierras and from the lower plains near Zacuapam.

116238. *ZEPHYRANTHES* sp.
 116239. *ZEPHYRANTHES* sp.
 116240. *ZEPHYRANTHES* sp.
 116241. *ZEPHYRANTHES* sp.

116242 and 116243.

From Ecuador. Seeds presented by the Dirección de Agricultura del Litoral, Guayaquil, through the American consulate general, Guayaquil, at the request of Raymond Stadelman, Bureau of Plant Industry. Received June 6, 1936.

116242. *DUCHESNEA INDICA* (Andrews) Focke. Rosaceae.

For previous introduction see 58891.

116243. *RUBUS* sp. Rosaceae.

116244 to 116247.

From Peru and Ecuador. Seeds collected by Raymond Stadelman. Bureau of Plant Industry. Received June 4, 1936.

116244. *CARICA CANDICANS* A. Gray. Papayaceae.

From Matucana, Lima, Peru, at 4,700 feet altitude. A wild relative of the papaya (*Carica papaya*), which is native to the mountainous region of Peru between Lima and Obrajilla, at about 7,000 feet altitude. It is a small tree 6 to 10 feet high, with a few stout branches and a fruit said to be shaped like a cacao pod.

For previous introduction see 58627.

116244 to 116247—Continued.

116245. *TEPHROSIA TOXICARIA* (Sw.) Pers. Fabaceae.

Collected April 23, 1936, at Santa Rosa, Cuzco, Peru, at 3,800 feet altitude.

For previous introduction see 114081.

116246. *DATURA STRAMONIUM* L. Solanaceae.

Adormidera. From Santa Rosa, Cuzco, Peru, April 23, 1936, at 3,800 feet altitude.

116247. *LANTANA CAMARA* L. Verbenaceae. Common *lantana*.

From San Mateo, Province Esmeraldas, Ecuador, March 24, 1936. Fruit used medicinally.

For previous introduction and description see 114962.

116248 to 116254. *AGROPYRON* spp. Poaceae. Grass.

From the Union of Soviet Socialist Republics. Seeds presented by Dr. N. I. Vavilov, Director, Institute of Plant Industry, Leningrad. Received June 6, 1936.

- 116248 to 116250. *AGROPYRON DESEITORUM* (Fisch.) Schult.

116248. No. K. 10421 (931).

116249. No. 764.

116250. No. 763.

116251. *AGROPYRON SIBIRICUM* (Willd.) Beauv.

No. 643 (982).

For previous introduction see 116190.

- 116252 and 116253. *AGROPYRON TRICHOPHORUM* (Link) Richt.

116252. No. 1014. 116253. No. 898.

116254. *AGROPYRON* sp.

No. 915.

116255 to 116285. *GOSSYPIUM* spp. Malvaceae. Cotton.

From the Union of Soviet Socialist Republics. Seeds presented by the Institute of Applied Botany, Leningrad. Received June 3, 1936.

- 116255 to 116257. *GOSSYPIUM ARBOREUM* L.

For previous introduction see 115473.

116255. No. K. 2509.

116256. No. K. 2520.

116257. No. K. 2526.

- 116258 to 116285. *GOSSYPIUM HERBACEUM* L.

116258. No. K. 2507.

116259. No. K. 2513.

116260. No. K. 2508.

116261. No. K. 2514.

116262. No. K. 2516.

116263. No. K. 2519.

116264. No. K. 2521.

116265. No. K. 2525.

116266. No. K. 2530.

116255 to 116285—Continued.

116267. No. K. 2531.
 116268. No. K. 2532.
 116269. No. K. 2539.
 116270. No. K. 2545.
 116271. No. K. 2548.
 116272. No. K. 2549.
 116273. No. K. 2550.
 116274. No. K. 2568.
 116275. No. K. 2572.
 116276. No. K. 2577.
 116277. No. K. 2590.
 116278. No. K. 2612.
 116279. No. K. 2614.
 116280. No. K. 2619.
 116281. No. K. 2621.
 116282. No. K. 2626.
 116283. No. K. 2645.
 116284. No. K. 2852.
 116285. No. K. 3001.

116286. PIPTADENIA sp. Mimosaceae.

From Nigeria. Seeds presented by the Conservator of Forests, through the Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos, Cuba. Received June 2, 1936.

Received as *Piptadenia africana*, but the seeds do not agree with that species.

116287 to 116296. AEGILOPS spp. Poaceae.

From Germany. Seeds presented by Dr. Elizabeth Schlemann through the Kaiser Wilhelm Institut, Müncheberg. Received June 8, 1936.

116287. AEGILOPS BIUNCIALIS Visiani.

An annual grass, native to the Mediterranean region.

116288. AEGILOPS CAUDATA L.

An annual grass, native to Crete.

116289. AEGILOPS COLUMNARIS Zhuk.

An annual grass, native to Asia Minor.

116290. AEGILOPS COMOSA Sibth. and Smith.

An annual grass, native to Greece and Asia Minor.

116291. AEGILOPS LIGUSTICA (Bertol.) Coss.

An annual grass, native to Europe.

116292. AEGILOPS SHARONENSIS Eig.

An annual grass, native to Palestine.

116293. AEGILOPS SPELTOIDES Tausch.

An annual grass of garden origin.

116294. AEGILOPS UMBELLULATA Zhuk.

An annual grass, native to Asia Minor.

116295. AEGILOPS UNARIATA Visiani.

An annual grass, native to the Mediterranean region.

116296. AEGILOPS VARIABILIS Eig.

A bushy annual grass, native to the eastern Mediterranean region.

116297 to 116331. TRITICUM AESTIVUM L. Poaceae. Common wheat.

From Australia. Seeds presented by H. Wenholz, Director of Plant Breeding, Department of Agriculture, Sydney, New South Wales. Received June 5, 1936.

116297. *Argentine*, K. 40. C. 9658.

116298. *Argentine*, K. 33. C. 9655.

116299. *Argentine*. C. 9656.

116300. *Greek*, 10. C. 7135.

116301. *Greek*, 18. C. 7142.

116302. *Ford* × *Minturki* F₅. G. 8-0-0.

116303. *Ford* × *Minturki* F₅. G. 8-1-0.

116304. *Ford* × *Tenmarq* F₅. G-0-7.

116305. *Minor*. C. 9142.

116306. *Mocho*. C. 9693.

116307. *Nabawa* × *RL 723* × (*Tenmarq*) F₄. G-101-3.

116308. *Nabawa* × *RL 723* × (*Tenmarq*) F₄. G-101-1.

116309. *Nabawa* × *RL 723* × (*Tenmarq*) F₄. G-101-2.

116310. *Portugal*. C. 7897.

116311. *Portugal*. C. 7921.

116312. *Pusa 4* × *RL 723* × (*Tenmarq*) F₃. G-103.

116313. *Pusa 4* × *RL 723* × (*Tenmarq*) F₃. G-102.

116314. *San Martin*. C. 9657.

116315. *Tenmarq* × *Pusa 4* F₅. G-0-0-11.

116316. *Tenmarq* × *Dundee* F₄. G-0-6.

116317. *Tenmarq* × *Pusa 4* F₅. G-0-0-110.

116318. *Tenmarq* × *Dundee* F₄. G-1-1.

116319. *Tenmarq* × *Dundee* F₄ from F₃ line. G-1-0.

116320. *Tenmarq* × *Dundee* F₄. G-101-1.

116321. *Tenmarq* × *Dundee* F₄. G-0-4.

116322. *Tenmarq* × *Pusa 4* F₄. G-0-13.

116323. *Tenmarq* × *Pusa 4* F₄. G-0-5.

116324. *Tenmarq* × *Pusa 4* F₄. G-0-11.

116325. *Tenmarq* × *Pusa 4* F₄. G-0-1.

116326. *Uruguay* 386. C. 10838.

116327. *Uruguay*. C. 10835.

116328. *Uruguay* 392. C. 10837.

116329. *Uruguay*. C. 10836.

116330. *Varonne*. C. 6146.

116331. *H44* × *Minhardi*. C. 9669.

116332 to 116452. ORYZA SATIVA L. Poaceae. Rice.

From Australia. Seeds presented by the Rice Research Station, Department of Agriculture, Yanco, New South Wales. Received June 22, 1936.

116332. *Acadia*. Y 2009.

116333. *Americana*. Y 1072-2.

116334. *Basantabazar*. Y 3480.

116335. *Benloch*. Y 1073-3.

116336. *Bentone*. Y 761.

116332 to 116452—Continued.

116337. *Blue Rose*. Y 1224.
 116338. *Blue Rose* × *Caloro*.
 116339. *Blue Rose* × *Caloro*, late.
 116340. *Blue Rose* × *Caloro*.
 116341. *Caloro*. 24-1-1. 18/2.
 116342. *Caloro*. Y 314-8.
 116343. *Caloro*. 314-9, late.
 116344. *Caloro*. Y 314-10, early.
 116345. *Caloro*. Y 2176-4-2.
 116346. *Caloro*. Y 2176-7, midseason.
 116347. *Caloro*. Y 2176-7-1, early.
 116348. *Caloro*. Y 2178-4, late.
 116349. *Caloro*. Y 2178-4-8.
 116350. *Caloro*. Y 2186, midseason.
 116351. *Caloro*. Y 2187.
 116352. *Caloro* × *Carolina White*. Y 3, late.
 116353. *Caloro* × *Carolina White*. Y 11.
 116354. *Caloro* × *Carolina White*. Y 14, late.
 116355. *Caloro* × *Carolina White*. Y 27, late.
 116356. *Caloro* × *Carolina White*. Y 35.
 116357. *Carolina Gold* × *Caloro*. Y 10, late.
 116358. *Carolina White*. Y 2851.
 Nos. 116359 to 116379 are different selections of *Carolina White* × *Bertone* F 3.
 116359. *Carolina White* × *Bertone*. F 3.
 116360. *Carolina White* × *Bertone*. F 3.
 116361. *Carolina White* × *Bertone*. F 3.
 116362. *Carolina White* × *Bertone*. F 3.
 116363. *Carolina White* × *Bertone*. F 3.
 116364. *Carolina White* × *Bertone*. F 3.
 116365. *Carolina White* × *Bertone*. F 3.
 116366. *Carolina White* × *Bertone*. F 3.
 116367. *Carolina White* × *Bertone*. F 3.
 116368. *Carolina White* × *Bertone*. F 3.
 116369. *Carolina White* × *Bertone*. F 3.
 116370. *Carolina White* × *Bertone*. F 3.
 116371. *Carolina White* × *Bertone*. F 3.
 116372. *Carolina White* × *Bertone*. F 3.
 116373. *Carolina White* × *Bertone*. F 3.
 116374. *Carolina White* × *Bertone*. F 3.
 116375. *Carolina White* × *Bertone*. F 3.
 116376. *Carolina White* × *Bertone*. F 3.
 116377. *Carolina White* × *Bertone*. F 3.
 116378. *Carolina White* × *Bertone*. F 3.
 116379. *Carolina White* × *Bertone*. F 3.
 116380. *Chinese Originario* 26 III '34.
 116381. *C. I. 1561* × *Y 1105*, early.
 116382. *Colusa* Y 180, early.
 116383. *Colusa* 14 '32, early.
 116384. *Colusa* Y 146-1, early.

116332 to 116452—Continued.

116385. *Colusa* Y 451-1-9-1-1, early.
 116386. *Delitus* Y 2926-1-3.
 116387. *Delitus* 2926-3.
 116388. *Early Wataribune* Y 387, midseason.
 116389. *Edith* Y 1227.
 116390. *Evangeline* Y 2927.
 116391. *Fortuna* Y 1256-4.
 116392. *Gtros* Y 2276.
 116393. *Gladjhar* M late 229 Y 4089.
 116394. *Italia* C 279 Y 4132.
 116395. *Jamaica* Y 2858.
 116396. *Kirishima* Y 272, midseason.
 116397. *Kirishima* Y 286, late.
 116398. *Kwanja* Y 1366, late.
 116399. *Lady Wright* × *Caloro* Y 8-5.
 116400. *Lady Wright* × *Caloro* Y 1-1-1, late.
 116401. *Lady Wright* × *Caloro* Y 1-1-2-1.
 116402. *Lady Wright* × *Caloro* Y 1-1-5.
 116403. *Lady Wright* × *Caloro* Y 1-3-1.
 116404. *Lady Wright* × *Caloro* Y 1-3-1-3.
 116405. *Lady Wright* × *Caloro* Y 1-3-1-4.
 116406. *Lady Wright* × *Caloro* Y 1-3-5.
 116407. *Lady Wright* × *Caloro* Y 1-3-7.
 116408. *Lady Wright* × *Caloro* Y 1-4-3-6-1, midseason.
 116409. *Lady Wright* × *Caloro* Y 1-4-3-6-2.
 116410. *Lady Wright* × *Caloro* Y 3-3-2-3.
 116411. *Lady Wright* × *Caloro* Y 3-3-2-12, late.
 116412. *Lady Wright* × *Caloro* Y 3-3-2-14, late.
 116413. *Lady Wright* × *Caloro* Y 3-7-1.
 116414. *Lady Wright* × *Caloro* Y 6.
 116415. *Lady Wright* × *Caloro* Y 7.
 116416. *Lady Wright* × *Caloro* Y 8-9, late.
 116417. *Lady Wright* × *Caloro* Y 8-10-2.
 116418. *Lady Wright* × *Caloro* Y 8-15-1, late.
 116419. *Lady Wright* × *Caloro* Y 10-2-1, late.
 116420. *Lady Wright* × *Caloro* Y 12-3-2-1, late.
 116421. *Lady Wright* × *Caloro* Y 12-3-2-7, late.
 116422. *Lady Wright* × *Caloro* Y 13-3-1, late.
 116423. *Lady Wright* × *Caloro* Y 15-1-5.
 116424. *Lady Wright* × *Kirishima* Y 4, late.
 116425. *Lady Wright* × *Kirishima* Y 10, early.
 116426. *Late Caloro* × *Blue Rose*, late.
 116427. *Late Caloro* × *Blue Rose*.
 116428. *Late Caloro* × *Blue Rose*, late.

116332 to 116452—Continued.

116429. *Late Caloro* × *Blue Rose*, late.
 116430. *Late Caloro* × *Lady Wright Y 4*, late.
 116431. *Lencino Y 1776*.
 116432. *Madagascar Y 2929-2*.
 116433. *Maratelli Y 760*.
 116434. *Mertie Y 1367-*.
 116435. *Ngarean Y 2206*, late.
 116436. *Ouari Y 117*.
 116437. *Precoce Y 2277*, early.
 116438. *Ranghino Y 2895*.
 116439. *Red* × *Caloro Y 1506* "Italian," late.
 116440. *Sel Y 2176*, midseason.
 116441. *Sye Min Y 4269*.
 116442. *Tavallini Y 2274-1*.
 116443. *Togohune Y 75-10*.
 116444. *Texas Prolifto Y 1225*.
 116445. *Tamasari Y 218-5-3*.
 116446. *Tamasari Y 218-7-3*, midseason.
 116447. *Tamasari Y 227-1-6-4*.
 116448. *Ulmeai Y 2896*.
 116449. *Vintula Y 3424*.
 116450. *Wari Lawo Y 2897*.
 116451. Selection 2187.
 116452. *Late Caloro* × *Blue Rose*.

116453 to 116554.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received June 2, 1936.

Unless otherwise stated, all of this material was collected at Saharanpur, United Provinces, April 16 to 19, 1936.

- 116453 and 116454. *ABELMOSCHUS ESCULENTUS* (L.) Moench. Malvaceae. Okra.
Bhendi.
 116453. No. 628. A native, long green variety.
 116454. No. 639. A native, dwarf white variety.
 116455. *ACACIA MODESTA* Wall. Mimosaceae.
 No. 583. Presented by the Saharanpur Gardens.
 116456. *ALBIZZIA PROCERA* (Roxb.) Benth. Mimosaceae.
 No. 560. From the Saharanpur Gardens. A tall handsome tree with large compound leaves and terminal panicles of yellow-white flowers. Native to eastern and southern India.
 For previous introduction see 99690.
 116457 and 116458. *ALLIUM CEPA* L. Liliaceae. Onion.
 116457. No. 611. *Safed pujaz*. A white onion.
 116458. No. 612. *Lal pujaz*. A red onion.

116453 to 116554—Continued.

116459. *ALSTONIA SCHOLARIS* (L.) R. Br. Apocynaceae.

No. 592. Presented by the Saharanpur Gardens. A tropical Indian tree 40 to 90 feet high with whorls of four to seven obovate evergreen leaves 8 inches long and cymes of greenish-white flowers. The bitter milky sap yields an inferior quality of gutta-percha, and an extract of the bark is used like quinine.

For previous introduction see 77642.

116460 to 116465. *BRASSICA OLERACEA BOTRYTIS* L. Brassicaceae. Cauliflower.

Phulgoobi. A collection of native varieties of cauliflower.

116460. No. 636. A large winter-growing form.

116461. No. 637. A good winter-grown form.

116462. No. 638. A good winter-grown form that originated here as *L. R. Brothers Selected*.

116463. No. 639. A good winter-grown sort, supposed to be different from 636 [116460].

116464. No. 640. An early Patna form, sown here in June.

116465. No. 641. A quick-growing form, sown here in May.

116466 to 116468. *BRASSICA RAPA* L. Brassicaceae. Turnip.

Shelgam. Native varieties of turnip, sown in winter.

116466. No. 633. A variety with purple top.

116467. No. 634. An early, large white turnip.

116468. No. 635. An early white variety.

116469. *CANAVALIA ENSIFORMIS* (L.) DC. Fabaceae. Jackbean.

No. 618. *Sem*. A strong perennial climber; the green beans are said to be of good quality.

116470 to 116473. *CAPSICUM ANNUM* L. Solanaceae. Common redpepper.

Miroh. From the market.

116470. No. 604. Said to be from Lahore. A medium-strong pepper 1 foot long, tapering gradually to a blunt tip three-eighths of an inch wide.

116471. No. 605. A medium-strong yellow pepper 4 inches long and one-fourth of an inch wide when dry; locally grown.

116472. No. 642. Supposed to be the Khalsi Mirch, an extremely pungent variety, much more expensive than any locally grown sorts. Khalsi is a nearby hill town.

116473. No. 643. A locally grown, long, yellow pepper.

116474 to 116477. *CITRULLUS VULGARIS* Schrad. Cucurbitaceae. Watermelon.

116474. No. 535. *Tendi*. From Bikaner, Bikaner State, April 13, 1936. A

116453 to 116554—Continued.

popular vegetable, but not widely grown in this region, probably on account of the short season.

116475. No. 620. *Safed tenda*. A small round white melon much esteemed as a vegetable and prepared like summer squash.

116476. No. 621. A small round green vegetable, like No. 620 [116475] except in color.

116477. No. 542. Presented by the Bikaner State Garden, April 13, 1936. A mixed sample said to represent six sorts, one of which bears fruits weighing up to 80 pounds; said to be sweet and to keep several months.

116478. *COMBRETUM ROXBURGHII* Spreng. Combretaceae.

No. 588. Presented by the Saharanpur Gardens, April 18, 1936. A large shrub with many slender and subsucculent branches, oblong leaves about 4 inches long, and large terminal panicles of conspicuous cream-white floral bracts. Native to India.

116479 to 116491. *CUCUMIS MELO* L. Cucurbitaceae. Muskmelon.

116479. No. 606. *Kakri*. Fruit said to be white, long, and thin, with longitudinal furrows 18 by 4 inches. Very good as salad when young.

116480. No. 607. Fruit said to be long, thin, and green, with longitudinal furrows 18 by 4 inches. Very good as salad when young.

116481. No. 671. Fruit slender, 3 feet long, bent and twisted, with a muskmelon odor when ripe.

116482. No. 448. From Jaipur City, April 1, 1936. Fruit elongate rounded, 1 foot by 7 inches, lemon yellow, greenish ribbed, heavily netted. Flesh whitish, rather insipid.

116483. No. 505. From Delhi, April 9, 1936. Fruit ovoid, about 6 inches long, with pronounced navel at blossom end, yellow, strongly and abundantly netted. Flesh salmon, thick, sweet. Said to have come from Itarsi, Central Provinces.

116484. No. 526. From Bikaner, Bikaner State, April 12, 1936. Fruit ellipsoid, yellow, heavily netted, 14 inches long, with very thick sweet fragrant salmon flesh. Said to have come from Ahmedabad.

116485. No. 531. From Bikaner, Bikaner State, April 13, 1936. Said to have come from Tonk. Fruit ellipsoid, 8 inches long, deep green with yellowish clouding and abundant longitudinal netting. Flesh white, flavorless, and apt to be bitter near the rind.

116486. No. 532. From Bikaner, Bikaner State, April 13, 1936. Said to have come from Tonk. Fruit compressed, 5 inches long and 7 inches in diameter, dark green and gold mottled, netted. Flesh pale salmon, rather insipid.

116487. No. 533. From Bikaner, Bikaner State, April 13, 1936. Said to have come from Tonk. Fruit elongate, often three-sided, pointed, with pronounced ribs, golden yellow. Flesh pale salmon, mealy, insipid.

116453 to 116554—Continued.

116488. No. 534. From Bikaner, Bikaner State, April 13, 1936. Said to have come from Tonk. Fruit subglobose, 6 inches in diameter, white, feebly ribbed, traces of netting. Flesh white, insipid.

116489. No. 547. Said to have come from Shabjehauper. Fruit much compressed, over 3 inches long and 6 inches in diameter, yellow, heavily netted with green rib lines. Flesh pale salmon, rather fragrant, thin; rind firm.

116490. *Sard*. No. 601. Fruit subglobose, 8 inches long, bright yellow, finely netted, fragrant. Flesh pale salmon, melting. Not locally grown.

116491. No. 647. A mixed sample, probably native local varieties.

116492 to 116497. *CUCUMIS SATIVUS* L. Cucurbitaceae. Cucumber.

116492. No. 543. *Kakri*. Presented by the Bikaner State Gardens, April 13, 1936. Said to represent a mixture of several kinds of local cucumbers.

116493. No. 569. *Balam Khira*. Fruit elongate, 2 inches by 1 inch, green with elongate white stripes or russet, of delicious flavor, tender and refreshing; the best cucumber observed.

116494. No. 609. *Balam Khira*. Said to be a local bushy variety. Fruit elongate rounded, 3 inches long and 2 inches in diameter, russet with age, very tender and pleasant; superior salad vegetable.

116495. No. 610. Fruit long, green.

116496. No. 613. *Safed Kakri*. A long white fruit.

116497. No. 672. A quick-growing variety which matures in less than 90 days; fruit short, yellow, egglike. Said to be of Russian origin.

116498 to 116501. *CUCURBITA MOSCHATA* Duchesne. Cucurbitaceae. Cushaw.*Sitaphul*.

116498. No. 648. Fruit large, red-fleshed, firm, grows in the hot season.

116499. No. 648. Fruit firm, large, round, yellow-fleshed. Grows in the hottest weather.

116500. No. 650. Fruit large, red, grows in the rains.

116501. No. 674. Said to be a very large sort, not common here, never seen here by me before.

116502 to 116506. *DAUCUS CAROTA* L. Apiaceae. Carrot.

116502. No. 608. *Gadjas*. Said to be a mixture of native carrots used for horse fodder.

116503. No. 614. *Banapha gadjas, kala gadjas*. A long purple carrot of very good flavor, but apt to have a woody center.

116504. No. 615. *Pila gadjas*. A long yellow carrot.

116505. No. 616. *Safed gadjas*. A long red carrot.

116506. No. 617. *Lat gadjas*. A long red carrot.

116453 to 116554—Continued.

116507 to 116510. *DOLICHOS LABLAB* L.
Fabaceae. **Hyacinth-bean.**

116507. No. 652. *Makhan sem.* "butter bean." Said to have broad tender pods.

116508. No. 653. *Hara sem.* Pods eaten fresh.

116509. No. 654. *Uda sem.* A variety with purple pods.

116510. No. 666. Said to have stringless pods.

116511. *FICUS BENGHALENSIS* L. **Moraceae.** **Fig.**

No. 455. *Bor.* From Jaipur City, April 3, 1936.

For previous introduction see 101311.

116512. *GOURLIEA DECORTICANS* Gillies. **Fabaceae.** **Chañar.**

No. 574. Presented by the Saharanpur Garden. A large shrub or small tree native to northern Argentina. The small yellow flowers are followed by edible fleshy pods.

For previous introduction see 33970.

116513. *HIPTAGE* sp. **Malpighiaceae.**

No. 582. Presented by the Saharanpur Garden. A strong woody climber with abundant fragrant white flowers.

116514. *HORDEUM VULGARE* L. **Poaceae.** **Barley.**

No. 545. *Manga jau.* "naked barley," from the Kulu Valley, Punjab, April 14, 1936, at 6,000 feet altitude.

116515. *IPOMOEA CAIRICA* (L.) Sweet. **Convolvulaceae.** **Morning-glory.**

No. 507. From Jaipur City, April 10, 1936.

For previous introduction and description see 116042.

116516. *IPOMOEA* sp. **Convolvulaceae.**

No. 600. A vine found covering a tree 20 feet high.

116517. *LACTUCA SATIVA* L. **Cichoriaceae.** **Garden lettuce.**

No. 619. *Salat.* Said to be a mixture of acclimatized varieties.

116518 and 116519. *LAGENARIA LEUCANTHA* (Duchesne) Rusby. **Cucurbitaceae.** **Calabash gourd.**

116518. No. 624. *Lanki.* The common bottle-shaped form.

116519. No. 625. *Lanki.* A round form.

116520 to 116522. *LUFFA ACUTANGULA* (L.) Roxb. **Cucurbitaceae.** **Singwa towelgourd.**

116520. No. 626. A hot-weather form; the young fruits are very good cooked, and the fiber of the ripe fruit is used as a sponge.

116521. No. 541. *Tori.* Presented by the Bikaner Government Gardens, April 13, 1936. A form with yellow striped fruits. The luffas are all good vegetables when immature.

116522. No. 627. *Kali Tori.* A rain form with yellow-striped fruits.

116453 to 116554—Continued.

116523 and 116524. *LUFFA CYLINDRICA* (L.) Roemer. **Cucurbitaceae.** **Suakwa towelgourd.**

Presented by the Bikaner Government Garden, April 12, 1936.

For previous introduction and description see 116108.

116523. No. 536. A light-colored form.

116524. No. 539. A green form.

116525 and 116526. *LYCOPERSICON ESCULENTUM* Mill. **Solanaceae.** **Tomato.**

For previous introduction see 116219.

116525. No. 538. Presented by the Bikaner Government Garden, April 13, 1936. A large red tomato; probably a recent introduction.

116526. No. 623. *Termatter.*

116527. *MORINGA OLEIFERA* Lam. **Moringaceae.** **Horseradish tree.**

No. 596. Presented by the Saharanpur Gardens, April 18, 1936.

For previous introduction see 116053.

116528. *MORUS NIGRA* L. **Moraceae.** **Black mulberry.**

No. 570. *Lal Shahbut.* An attractive tree with shiny green foliage and purple-red fruits, 2 inches long by one-fourth inch in diameter, pleasantly acid.

For previous introduction see 64956.

116529 and 116530. *PHOENIX* spp. **Phoenicaceae.** **Palm.**

Presented by the Saharanpur Gardens, April 18, 1936.

116529. *PHOENIX DACTYLIFERA* J. **Date palm.**

No. 576.

116530. *PHOENIX RUPICOLA* T. Anders. **Cliff date palm.**

No. 597. A Himalayan palm with a solitary slender naked stem 15 to 20 feet high, bright-green leaves 10 feet long, and shining yellow, oblong fruits.

For previous introduction see 100984.

116531. *PHYLLANTHUS EMBLICA* L. **Euphorbiaceae.** **Nelli.**

No. 584. Presented by the Saharanpur Gardens.

For previous introduction and description see 114453.

116532. *PTEROSPERMUM ACERIFOLIUM* (L.) Willd. **Sterculiaceae.**

No. 580. *Machkan.* Presented by the Saharanpur Gardens. A large, attractive tree with large white, sweet-scented flowers.

For previous introduction see 67533.

116533 to 116535. *RAPHANUS SATIVUS* L. **Brassicaceae.** **Radish.**

Nulli. A collection of white radishes which are sown at different seasons in India.

116533. No. 630. An all-season variety; may be sown in the rains or in hot weather.

116534. No. 631. A white radish with a purple top; sown in the winter.

116543 to 116554—Continued.

116535. No. 632. Sown in the winter.
- 116536 to 116544. *SOLANUM MELONGENA* L. Solanaceae. Eggplant.
Bengan. Nos. 116536 and 116537 were presented by the Bikaner Government Garden, Bikaner State, April 13, 1936.
116536. No. 537. A large, round, black-purple form.
116537. No. 540. An elongate, purple-black fruit 1 foot long and alkali-tolerant.
116538. No. 656. A large purple, native variety.
116539. No. 657. A large violet, native variety.
116540. No. 658. A large, long, black-purple native variety.
116541. No. 660. A very long, native variety, grown in summer.
116542. No. 661. A native sort, very long, for winter planting.
116543. No. 664. *Safed Bengan*. A round white variety.
116544. No. 665. *Safed Bengan*. A long white fruit.
- 116545 and 116546. *SPINACIA OLERACEA* L. Chenopodiaceae. Common spinach.
116545. No. 644. *Palag*. Said to be grown the year round.
116546. No. 645. *Palag*. A variety sown in the fall.
116547. *TECTONA GRANDIS* L. f. Verbenaceae. Teak.
No. 565. From the Saharanpur Gardens, April 17, 1936. An attractive tall timber tree.
116548. *TRICHOSANTHES ANGUINA* L. Cucurbitaceae. Snakegourd.
No. 622. *Chachinda*. Said to be a mixture of races.
- For previous introduction and description see 115967.
- 116549 and 116550. *VICIA FABA* L. Fabaceae. Broadbean.
116549. No. 673. *Bakla Kalan*. Pods and green beans used as food.
116550. No. 655. *Seo Chand*. Said to be grown for the green pods.
- 116551 to 116554. *VIGNA SINENSIS* (Torner) Savi. Fabaceae. Cowpea.
Lobra. Grown for the edible green pods.
116551. No. 651. 116553. No. 668.
116552. No. 667. 116554. No. 669.
- 116555 and 116556.
- From Italy. Bulbs presented by Miss Adela de Lines, San José, Costa Rica. Received June 23, 1936.
116555. *AMARYLLIS BELLADONNA* L. Amaryllidaceae. Belladonna-lily.
An amaryllis with pale rose-colored flowers.
- For previous introduction see 109895.
116556. *ZEPHYRANTHES* sp. Amaryllidaceae.
A variety with pale-lilac flowers.

116557. *CITRUS SINENSIS* (L.) Osbeck. Rutaceae. Orange.
From Australia. Budsticks presented by L. P. Rosen & Son, Fernhill Nurseries, Carlingford, New South Wales. Received June 23, 1936.
Berry Valencia orange.
- 116558 to 116565.
- From Turkey. Seeds and bulbs collected by H. L. Westover and F. L. Wellman, Bureau of Plant Industry. Received June 12, 1936.
116558. *ALLIUM* sp. Liliaceae.
No. 554. Bulblets collected north of the Agricultural Institute, Ankara, May 25, 1936.
Nos. 116559 to 116565 were collected May 20, 1936, on the hills around Ankara.
116559. *ALLIUM AMPELOPRASM* L. Liliaceae. No. 555. Bulblets.
116560. *ALLIUM AMPELOPRASM* L. Liliaceae. No. 556. Bulbs and bulblets collected at Gazi's farm.
116561. *CROCUS* sp. Iridaceae. No. 558. Bulbs.
116562. *CROCUS* sp. Iridaceae. No. 558-A.
116563. *CROCUS* sp. Iridaceae. No. 560. Bulbs.
116564. *GLADIOLUS* sp. Iridaceae. No. 557. Bulbs.
116565. *MUSCARI* sp. Liliaceae. No. 559. Bulbs.
116566. *TRITHIRINAX ACANTHOCOMA* Drude. Phoenicaceae.
From California. Seeds presented by David Barry, Jr., Los Angeles. Received June 17, 1936.
A dwarf fan palm with a stout stem and netted leaf sheaths bearing many strong reflexed spines. The large fanlike leaf blades are deeply cut into about 40 narrow bifid segments. Native to Brazil.
116567. *CITRUS NOBILIS DELICIOSA* (Ten.) Swingle. Rutaceae. Mandarin orange.
From Brazil. Seeds presented by Agesilau Bitancourt, through Anna Jenkins, Bureau of Plant Industry. Received June 23, 1936.
Laranja cravo. A well-known citrus fruit of southern Brazil, somewhat like a tangerine. Fruit deep reddish-orange with a loose rough thick skin. The stem end protrudes, and there is a small navel at the distal end.
- 116568 and 116569. *NICOTIANA TARACUM* L. Solanaceae. Common tobacco.
From Costa Rica. Seeds presented by J. M. Orozco, Jefe de la Sección de Botánica, Departamento de Agricultura, San Pedro Montes. Received June 24, 1936.
116568. *Chircagre*. From Chircagre, an Indian village at the foot of the Irazú volcano. Interesting for its resistance

116568 and 116569—Continued.

to adverse conditions and its ease of cultivation.

116569. *Criollo de flor blanco*. A variety extensively cultivated for more than 60 years and very disease resistant.

116570 to 116578.

From India. Bulbs and seeds collected by Walter Koelz, Bureau of Plant Industry. Received June 4, 1936.

116570 to 116573. *ALIU M SATIVUM* L. Liliaceae. Garlic.

116570. No. 387. *Lassan*. From Agra, United Provinces, March 25, 1936. Bulbs commonly used as a condiment.

116571. No. 454. *Lassan*. Bulbs collected at Jaipur City, April 2, 1936.

116572. No. 685. *Lassan*. Bulbs collected at Saharanpur, United Provinces, April 21, 1936.

116573. No. 713. *Lassan*. Bulbs collected at Amritsar, Punjab, April 23, 1936.

Nos. 116574 to 116578 were collected at the Saharanpur Gardens, United Provinces, April 17 to 21, 1936.

116574. *GYMNOSPORIA ROTHIANA* (Walp.) Wight and Arn. Celastraceae.

No. 554. An evergreen shrub or small tree with thick, coarse branches, sometimes spiny, and elliptic leaves about 3 to 4 inches long. The crimson fruits split open when ripe and cast their seeds.

116575. *CITRUS* sp. Rutaceae.

No. 714. A fruit, grapefruitlike in form, color, and size, except that the surface is uneven with a small elevation at the stem end; strongly and not too agreeably acid.

116576. *EUGENIA* sp. Myrtaceae.

No. 688. A large attractive evergreen tree with small pleasantly acid fruits.

116577. *GLYCOSMIS PENTAPHYLLA* (Retz.) Correa. Rutaceae.

No. 686. An unarmed shrub with evergreen leaves and panicles of small white fragrant flowers and white berries. Said to be very hardy in dry places.

For previous introduction see 109792.

116578. *PUTRANJIVA ROXBURGHII* Wall. Euphorbiaceae.

No. 557. *Japata*. A spreading evergreen of attractive form with small whitish bitter fruits the size of a cherry. From the seeds is obtained an olive-brown oil used by the natives of India for burning. The hard gray wood is used for making tools.

For previous introduction see 59683.

116579 to 116623.

From India. Seeds presented by the Lloyd Botanic Gardens, Darjeeling, through Dr. R. A. Fenton, Portland, Oreg. Received June 4, 1936.

116579. *ALNUS NEPALENSIS* D. Don. Betulaceae.

116580. *ASPARAGUS RACEMOSUS* Willd. Convallariaceae.

116579 to 116623—Continued.

116581. *ASTILBE RIVULARIS* Buch.-Ham. Saxifragraceae.

A perennial herb, native to Nepal and western China, with stems 3 to 5 feet high, covered with tawny hairs. The binate leaves have dentate ovate leaflets 1 to 3 inches long, and the creamy-white flowers, with pure-white stamens, are borne in large panicle spikes at the top of the stems.

For previous introduction see 103114.

116582. *BERBERIS CONCINNA* Hook. f. Berberidaceae. Barberry.

For previous introduction see 65754.

116583. *BERBERIS WALLICHIANA* DC. Berberidaceae. Barberry.

116584. *CLEMATIS SMILACIFOLIA* Wall. Ranunculaceae.

A tall woody climber with large leathery, usually simple, ovate or cordate leaves and panicles of deep purple flowers. Native to India.

116585. *EDGEWORTHIA GARDNERI* (Wall.) Meisn. Thymelaeaceae. India papertree.

A handsome shrub, native to the Himalayas, whose branches are covered with dense clusters of yellow, sweet-scented flowers before the leaves appear. The strong tough fiber which is obtained from the long, straight twigs is sometimes used as paper-making material.

For previous introduction see 65250.

116586. *ERANTHEMUM INDICUM* (Nees) C. B. Clarke. Acanthaceae.

A bushy shrub up to 4 feet high, with lanceolate or narrowly ovate leaves about 7 inches long and dense racemes of white, purple-veined flowers over an inch long. Native to the Himalayas at altitudes of 1,000 to 5,000 feet.

116587. *EUPHORBIA SIKKIMENSIS* Boiss. Euphorbiaceae.

A stout perennial 3 to 4 feet high, native to the Sikkim Himalayas at altitudes of 8,000 to 10,000 feet. The linear-lanceolate, glabrous leaves are 2 to 4 inches long, and the small inconspicuous flowers are surrounded by broad, ovate, yellow bracts.

For previous introduction see 111047.

116588. *FRAGARIA DALTONIANA* J. Gay. Rosaceae. Himalayan strawberry.

A wild relative of the cultivated strawberry, which comes from alpine pastures of the Sikkim Himalayas at altitudes of 10,000 to 15,000 feet. It is a stoloniferous perennial with solitary white flowers and bright-scarlet, insipid fruits an inch long and half as broad.

For previous introduction see 58489.

116589. *GERANIUM POLYANTHES* Edgew. and Hook. f. Geraniaceae.

A perennial herb with simple or branching stems up to 10 inches high, divided orbicular-reniform leaves about 2 inches in diameter, and umbels of 3 to 10 dark-purple flowers less than an inch across. Native to the Sikkim Himalayas at altitudes of 9,000 to 12,000 feet.

116579 to 116623—Continued.

116590. *HYPERICUM HOOKERIANUM* Wight and Arn. Hypericaceae.

116591. *HYPERICUM JAPONICUM* Thunb. Hypericaceae.

A decumbent herbaceous perennial with ovate or oval leaves and terminal cymes of small yellow flowers. Native to eastern Asia.

116592. *LACTUCA DUBYANA* C. B. Clarke. Cichoriaceae.

A low herbaceous perennial 6 to 18 inches high, native to the slopes of the central Himalayas in northern India. The ovate-hastate, hispid leaves, 3 to 6 inches long, vary from simple to pinnatifid, and the nodding yellow flower heads, 1 inch across, are clothed with black glandular hairs.

For previous introduction see 99667.

116593. *LACTUCA MACRANTHA* Clarke. Cichoriaceae.

A stout perennial lettuce up to 2 feet high, with large pinnatifid leaves and loosely paniced heads of blue flowers. Native to the Sikkim Himalayas at altitudes of 10,000 to 14,000 feet.

116594. *LIGUSTRUM CONFUSUM* Decaisne. Oleaceae. Privet.

A small tree up to 40 feet in height, which is one of the tropical relatives of the California privet (*Ligustrum ovalifolium*). The leathery obtuse leaves are about 9 inches long, and the small white flowers are in panicles 1 to 5 inches long.

For previous introduction see 66295.

116595 and 116596. *LOBELIA PYRAMIDALIS* Wall. Campanulaceae.

A perennial herb 2 to 7 feet high, found between 3,000 and 9,000 feet altitude in the Himalayan mountains. The linear leaves are glabrous, and the purple-rose or whitish flowers are produced in many-flowered racemes.

For previous introduction see 93906.

116597. *MAESA INDICA* (Roxb.) Wall. Myrsinaceae.

An evergreen shrub or small tree common throughout India at altitudes of 6,000 feet or less. The small white berries are used as food in Nepal, and the leaves are used in Kanara to poison fish.

For previous introduction see 47712.

116598. *DESMODIUM FLORIBUNDUM* (D. Don) G. Don. Fabaceae.

A woody, thickly pubescent Himalayan plant with very copious axillary and terminal racemes of pale-pink or lavender flowers.

For previous introduction see 94077.

116599. *DESMODIUM GYROIDES* DC. Fabaceae.

A shrubby leguminous plant 8 to 10 feet high, native to the warmer parts of the central and eastern Himalayas. It has pubescent leaves and terminal racemes of red-purple flowers. It is found growing in valleys, at times even on the borders of swamps.

For previous introduction see 105242.

116579 to 116623—Continued.

116600. *DESMODIUM TILIAEFOLIUM* (D. Don) G. Don. Fabaceae.

An attractive deciduous shrub with slender terete branches, thick green trifoliolate leaves about 4 inches long, and red flowers in lax racemes often a foot long. The bark yields an excellent fiber which is used in rope making, the leaves are good fodder, and the roots are used medicinally as a tonic and diuretic. It is native to the Himalayas from 3,000 to 6,000 feet altitude.

For previous introduction see 99743.

116601. *MELIA* sp. Meliaceae.

116602. *MICHELIA EXCELSA* Blume. Magnoliaceae.

A tall tree, native to the temperate Himalayas of northeastern India at altitudes of about 5,000 feet. The large narrow leaves are silky brown beneath, and the handsome white flowers are 4 or 5 inches across.

For previous introduction see 58909.

116603. *MICHELIA LANUGINOSA* Wall. Magnoliaceae.

This species is characterized by the white, woolly, lower surface of its long narrow magnoliolike leaves. The white solitary flowers are 3 to 4 inches across. Although this species is a spring-flowering tree in northern India, where it is native, in Sikkim it is said to form an autumn-flowering bush.

For previous introduction see 62814.

116604. *MUSSAENDA ROXBURGHII* Hook. f. Rubiaceae.

An erect undershrub with hairy stems and oblong-lanceolate leaves, native to the tropical slopes of the Himalayas in India. The yellowish flowers are borne in dense hairy cymes, and each flower is subtended by a prominent white calyx lobe. The fleshy berries are crowned by the persistent calyx.

For previous introduction see 93217.

116605. *PICEA SMITHIANA* (Wall.) Boiss. Pinaceae. Spruce.

A lofty tree, native to the mountains of northwestern India at altitudes of 7,000 to 11,000 feet; the terminal, drooping, pale-green cones are 4 to 6 inches long. The stiff, sharp, spirally arranged green leaves are crowded on pendulous taillike twigs.

For previous introduction see 55694.

116606. *POLYGONUM CAPITATUM* Buch.-Ham. Polygonaceae.

A prostrate perennial 6 to 10 inches long, with small elliptic-acute leaves and numerous heads of small pink flowers. Native to the Himalayas at altitudes of 3,000 to 6,000 feet.

116607. *POLYGONUM CHINENSE* L. Polygonaceae. Fleeceflower.

116608. *POLYGONUM MOLLE* D. Don. Polygonaceae.

A shrubby perennial 2 to 3 feet high, with white flowers in large thyrselike terminal panicles. Allied to *Polygonum polystachyum*. Native to Nepal.

116579 to 116623—Continued.

116609. *POLYGONUM* sp. Polygonaceae.

116610. *PORANA RACEMOSA* Roxb. Convolvulaceae. Snow-creeper.

An evergreen vine, native to the subtropical Himalayas. It occurs in dense masses, climbing over other plants in the jungle. The small, dazzling-white flowers, in dense racemes, resemble patches of snow when seen from a distance.

For previous introduction see 105029.

116611. *SALVIA CAMPANULATA* Wall. Menthaceae.

A stout perennial 2 to 3 feet high, with ascending hirsute stems and ovate, cordate-crenate leaves on long petioles. The large flowers, yellow with purple dots, are in axillary or terminal racemes. Native to the Himalayas at altitudes of 9,000 to 13,000 feet.

For previous introduction see 112858.

116612. *SAUROPIUS ALBICANS* Blume. Euphorbiaceae.

An erect, somewhat shrubby plant with terete green branches, small greenish-red flowers, and small fleshy fruits. It is native to the hot valleys of the Sikkim Himalayas and is distributed southward to Ceylon and eastward to the Philippines.

For previous introduction see 47785.

116613. *SWERTIA BIMACULATA* (Sieb. and Zucc.) Hook. f. and Thoms. Gentianaceae.

For previous introduction and description see 114806.

116614. *SWERTIA DILATATA* C. B. Clarke. Gentianaceae.

An herb 1 to 3 feet high, with lanceolate leaves over an inch long and paniculate cymes of greenish-yellow flowers. Native to the Himalayas between 4,000 and 12,000 feet altitude.

For previous introduction see 111094.

116615. *SYMPLOCOS GLOMERATA* King. Symplocaceae.

A shrub or small tree becoming 10 feet high, with narrow leathery leaves 6 inches long and axillary clusters of small white flowers. This shrub is rather common in the hills of Sikkim and Bhutan, India, at altitudes of 1,000 to 8,000 feet.

For previous introduction see 111096.

116616. *SYMPLOCOS RAMOSISSIMA* Wall. Symplocaceae.

A shrub or tree up to 40 feet high, native to India. The oblong-lanceolate membranous leaves are 4 inches long, and the small white flowers are in axillary one- to six-flowered racemes.

For previous introduction see 102911.

116617. *SYMPLOCOS THEAEFOLIA* D. Don. Symplocaceae. Sweetleaf.

An erect tree of the eastern Himalayas from Nepal to Bhutan, between 4,000 to 6,000 feet altitude. The leaves of this species are used as an auxiliary with *Morinda tinctoria* and lac in dyeing.

For previous introduction see 46108.

116618. *THOMSONIA NAPAENSIS* Wall. Araceae.

A perennial herb allied to *Amorphophallus*, with leaves over 18 inches across and ovate or oblong leaflets about 4 inches

116579 to 116623—Continued.

long; a cylindrical, purple variegated scape to 2 feet high and a large green spathe. Native to India.

116619. *DESMOS CHINENSIS* Lour. Annonaceae.

A shrub 3 to 7 feet high, native to southern China, growing wild in shady places in clay soil. The very fragrant greenish-yellow flowers are followed by curious clusters of attractive fruits which turn from yellow to red and are composed of many noninfliform pods radiating from a short peduncle.

For previous introduction see 63624.

116620. *VIBURNUM STELLULATUM* Wall. Caprifoliaceae.

A large evergreen shrub with elliptic-lanceolate leaves about 3 inches long and small red berries. Native to the temperate Himalayas and said to be hardy in England.

For previous introduction see 111102.

116621. *TETRASTIGMA SERRULATUM* (Roxb.) Planch. Vitaceae.

A glabrous woody vine with slender wiry stems, native to the temperate Himalayas. The palmately compound leaves have three to five lanceolate to obovate, bristly serrate leaflets 1 to 3 inches long, and the axillary or terminal cymes of small green flowers are followed by globose black fruits about one-fourth of an inch in diameter.

For previous introduction see 102782.

116622. *TETRASTIGMA LANCEOLARIUM* (Wall.) Planch. Vitaceae.

A woody evergreen climber with large, usually five-foliolate, fleshy to leathery leaves and small greenish flowers in cymes. Native to eastern India.

116623. *ZIZIPHUS RUGOSA* Lam. Rhamnaceae.

A large evergreen shrub or small tree, sometimes of climbing habit, with elliptic leaves, 2 to 6 inches long and fleshy fruits one-third of an inch in diameter. Native to the tropical Himalayas.

116624 to 116629. *NICOTIANA TABACUM* L. Solanaceae.

Common tobacco.

From Mexico. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received in June 1936.

116624. *Punta de Lanza*. From San Miguel, Veracruz.

116625. *Punta de Lanza*. From Uñas de la Candelaria, Veracruz.

116626. *Colorado*. From Uñas de la Candelaria, Veracruz.

116627. *Colorado*. From La Trinidad, Yaveo, Oaxaca.

116628. *Colorado*. From Jaltepec. Yaveo, Oaxaca.

116629. *Colorado*. From Santa Maria, Choapan, Oaxaca.

116630. *ZEPHYRANTHES* sp. Amaryllidaceae.

From Mexico. Bulbs purchased from Maximino Martinez, Professor of Botany, Mexico City, Distrito Federal. Received June 25, 1936.

- 116631 to 116634. NERINE spp. Amaryllidaceae.**
From England. Bulbs purchased from Hocker Edge Gardens, Cranbrook, Kent. Received June 26, 1936.
- 116631. NERINE FILIFOLIA Baker.**
- 116632. NERINE CURVIFOLIA FOTHERGILLII (Andr.) Baker.**
A nerine with about six strap-shaped leaves a foot long, appearing after the flowers, and many crimson to scarlet flowers in an umbel about 4 inches across. Native to South Africa.
- 116633. NERINE MASONORUM L. Bolus.**
A tender bulbous plant with narrow, channeled leaves about 1 foot long appearing with the rose-colored flowers. There are four to six flowers in an umbel, the segments being recurved, undulate, and about one-half inch long. Native to southern Africa.
- 116634. NERINE UNDULATA (L.) Herb.**
A tender bulbous perennial with four to six linear leaves 1 foot or more in length and 8 to 12 pale-pink flowers about three-fourths of an inch long in centrifugal umbels. Native to South Africa.
- 116635 to 116681.**
From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received in June 1936.
- Unless otherwise stated, all of this material was collected from April 20 to May 1, 1936, at Lahore, Punjab.
- 116635. ACACIA NILOTICA (L.) Willd. Mimosaceae.**
No. 753. *Kikas*. A large attractive tree, native to tropical Africa, with bipinnate foliage and heads of small white flowers. Common in the hot dry parts of India.
For previous introduction see 97861.
- 116636 and 116637. ALLIUM CEPA L. Liliaceae. Onion.**
- 116636. No. 744. Lal pujaz.** A locally grown onion, red, flattened, 4 inches in diameter and keeps well.
- 116637. No. 757. Safed pujaz.** A flat white onion 4 inches across.
- 116638. AMYGDALUS PERSICA L. Amygdalaceae. Peach.**
No. 743. *Aru*. Said to have come from Peshawar.
- 116639 to 116643. BRASSICA OLERACEA BOTRYTIS L. Brassicaceae. Cauliflower.**
- 116639. No. 775.** Said to be a long-leaved variety.
- 116640. No. 776.** Said to be from Peshawar and to be long leaved and the largest kind grown.
- 116641. No. 777.** A small-leaved variety said to be from Sialkot.
- 116642. No. 778. Agetri.** Said to be the Patna sort.
- 116643. No. 779.** Said to be a Teroze-pur sort.
- 116644. CANAVALIA ENSIFORMIS (L.) DC. Fabaceae. Jackbean.**
No. 752. *Makan Sem*. Green pods used as food.
- 116635 to 116681—Continued.**
- 116645 to 116647. CAPSICUM ANNUUM L. Solanaceae. Common redpepper.**
Mirch. A collection of locally grown varieties.
- 116645. No. 746.** Fruit said to be 1 inch long and broadly triangular.
- 116646. No. 748.** Said to be a long-podded sort.
- 116647. No. 747.** Said to be 5 inches long.
- 116648. CASSIA FISTULA L. Caesalpinaceae. Golden-shower.**
No. 711. From the Saharanpur Gardens, United Provinces, April 21, 1936. A tree 40 feet high and a foot in diameter with pods 20 inches long, longer than other trees of this species.
- 116649 to 116656. CITRULLUS VULGARIS Schrad. Cucurbitaceae. Watermelon.**
- 116649. No. 739.** Fruit netting globose, dark green with fine netting visible on close inspection; rind thin; flesh melting and sweet; weight 12 pounds.
- 116650. No. 769. Peshawar Tarbuza.** A form grown at Peshawar.
- 116651. No. 770. Gujuran Tarbuza.** A form grown at Gujuran.
- 116652. No. 772. Jhang Tarbuza.** A form grown at Jhang.
- 116653. No. 773.** Said to be different from Nos. 769, 770, 772 (P. I. 116650-116652).
- 116654. No. 774. Quetta Tarbuza.** Said to be a first-class melon.
- 116655. No. 771. Rasul Naggar Tarbuza.** A variety grown at Rasal Nagger; said to have a very thin rind.
- 116656. No. 742. Chata tinda.** Fruit the size and shape of a tangerine; very good melon.
- 116657 to 116687. CUCUMIS MELO L. Cucurbitaceae. Muskmelon.**
- 116657. No. 717. Lucknow Kharbuza.** April 24, 1936, at Amritsar, Punjab. A melon said to have come from Lucknow. Fruit up to 6 inches long, flattened, smooth, lemon yellow with white to pale-salmon flesh, fragrant, but of rather poor taste.
- 116658. No. 756. Kabuli Sarda.** Said to be a superior type of Iranian [Persian] melon.
- 116659. No. 760. Kasuri Kharbuza.**
- 116660. No. 761. Amritsari Kharbuza.** A locally grown melon.
- 116661. No. 762. Jhang Kharbuza.** A Punjabi variety.
- 116662. No. 763. Lucknow Kharbuza.** Considered very fine.
- 116663. No. 764. Quetta Kharbuza.** A large melon grown at Quetta and famous in India as *Masteng*.
- 116664. No. 765. Quetta Kharbuza.** A Quetta variety.
- 116665. No. 766. Lahore Kharbuza.** A melon grown at Lahore.
- 116666 and 116667. Poot Kharbuza.** A muskmelon that is said to ripen in the rains. There are two types, one

116635 to 116681—Continued.

round, one elongated. The quality is not so good, but they ripen when other melons are past.

116666. No. 767. 116667. No. 768.

116668. CUCURBITA PEPO L. Cucurbitaceae.
Pumpkin.

No. 754. *Chini Kaddu*. A small roundish summer squash somewhat scalloped but not flattened. A very good vegetable.

116669 to 116671. DAUCUS CAROTA L. Apiaceae.
Carrot.

116669. No. 749. *Pila gadjas*. Said to have a yellow root.

116670. No. 750. *Kala gadjas*. Said to have a dark-purple root.

116671. No. 755. *Safed gadjas*. Said to have a white root.

116672. DOLICHOS LABLAB L. Fabaceae.
Hyacinth-bean.

No. 738. From Amritsar, Punjab, April 27, 1936. Grown for the green pods.

116673. LAGENARIA LEUCANTHA (Duchesne) Rusby. Cucurbitaceae. Calabash gourd.

No. 741. *Ghujja*. Fruits 2½ inches long and about 5 inches through.

116674. MORUS ALBA L. Moraceae.
White mulberry.

No. 737. *Shahbut*. From Amritsar, Punjab, April 27, 1936. Fruit 1 inch long by three-eighths of an inch in diameter, white, more or less clouded with dull purple; quality fair.

For previous introduction see 104323.

116675 and 116676. PISUM SATIVUM L. Fabaceae.
Pea.

116675. No. 758. *Matar*. Said to be the local Amritsar sort.

116676. No. 759. *Simla Matar*. A form said to have originated in Simla or from the neighboring mountains.

116677 to 116680. SOLANUM MELONGENA L. Solanaceae.
Eggplant.

Nos. 780 to 783 are considered distinct forms.

116677. No. 780. Fruit round, black.

116678. No. 781. A dwarf plant with fruits 9 inches long.

116679. No. 782. Fruit purple black.

116680. No. 783. *Banarsi Sihal*. Said to be the well-known *Black Giant of Benares*.

116681. SPINACIA OLERACEA L. Chenopodiaceae.
Common spinach.

No. 751. *Palag*. Locally grown as a potherb.

116682 to 116695.

From Egypt. Seeds presented by Alfred Bircher. The Middle Egypt Botanic Station, El Saft. Received June 15, 1936.

Seeds grown in the higher parts of El Saft and the Protectorate of Kenya.

116682. ACACIA ABYSSINICA Hochst. Mimosaceae.

A tree, native to Ethiopia, with bipinnate leaves, spinescent stipules, and very small flowers in capitate clusters.

116682 to 116695—Continued.

116683. ACANTHUS EMINENS C. B. Clarke. Acanthaceae.

A shrub about 7 feet high, with large pinnatifid spinous leaves about 10 inches long and purple flowers 2 inches long in short spikes. Native to eastern tropical Africa.

116684. AMOMUM sp. Zinziberaceae.

A gingerlike herb.

116685. DOMBEYA BURGESSIAE Gerrard. Sterculiaceae.

A handsome low mound-shaped evergreen shrub with nearly white, bell-shaped flowers in graceful clusters. Native to southern Africa.

For previous introduction see 51248.

116686. HAGENIA ABYSSINICA (Bruce) J. F. Gmel. Rosaceae.

A small ornamental tree with large tufted, compound leaves and much-branched terminal panicles of small pinkish flowers. Native to Ethiopia.

116687. CRAIBIA ELLIOTI Dunn. Fabaceae.

A tropical evergreen shrub with three- to five-foliolate leaves about 5 inches long and terminal racemes of small flowers. Native to eastern tropical Africa.

116688. EKEBERGIA RUEPELLIANA (Fresen) A. Rich. Meliaceae.

A tree with leathery pinnate leaves a foot or more long and erect panicles of many small white flowers, followed by small inedible, globose berries. Native to tropical Africa.

116689. JUNIPERUS PROCERA Hochst. Pinaceae.
East African juniper.

A tall handsome tree with a maximum height of about 100 feet. It is native to the high mountains of eastern tropical Africa and is closely related to *Juniperus excelsa*.

For previous introduction see 62395.

116690. LEPTOSPERMUM CITRATUM (Bailey and White) Challinor, Cheel, and Penfold. Myrtaceae.

An evergreen shrub or small tree 4 to 20 feet high, with linear to obtuse leaves about 1½ inches long and solitary white flowers. Native to Queensland, Australia.

116691. MARKHAMIA HILDEBRANDTII (Baker) Sprague. Bignoniaceae.

A shrub or small tree with pinnate leaves 6 to 10 inches long and showy yellow flowers over an inch long, in terminal and axillary panicles. Native to eastern tropical Africa.

116692. CALODENDRUM CAPENSE Salberg. Rutaceae.

A large handsome tree with branches spreading in pairs or in threes. The ovate evergreen opposite leaves are 3 to 4 inches long. The white flowers, with linear-oblong reflexed petals 1 to 2 inches long, are in terminal panicles, and the shining blue seeds, the size of hazelnuts, are borne in thick hard capsules. It is native to southern Africa.

For previous introduction see 98228.

116693. POLYSCIAS KIKUYUENSIS Summerhayes. Araliaceae.

A tree up to about 50 feet high, with large pinnate leaves. The wood is soft and white. Native to Kenya, Africa.

116682 to 116695—Continued.

116694. *PYGEUM AFRICANUM* Hook. f. Amygdalaceae.

A small tree with elliptic-oblong leaves about 4 inches long and small flowers in racemose clusters. Native to tropical Africa at altitudes of 2,400 feet.

116695. *VITEX KENIENSIS* Turrill. Verbenaceae.

A tall tree sometimes 90 feet high, with large five-foliolate leaves. The wood has a grain resembling that of teak. Native to eastern tropical Africa.

116696 to 116703.

From the Union of Soviet Socialist Republics. Seeds presented by Dr. V. P. Alekseev, Chief, Section of Introduction, All Union Research Institute of Dry Subtropics, Tashkent, Middle Asia. Received June 17, 1936.

116696. *ASTRAGALUS PEDUNCULARIS* Royle. Fabaceae.

No. 8.

116697. *ASTRAGALUS SEWERTZOWII* Bunge. Fabaceae.

No. 9. A stemless perennial, native to Turkistan.

116698. *ASTRAGALUS SIEVERSII* Pall. Fabaceae.

No. 10. An erect or ascending perennial with oblong hairy leaflets and axillary clusters of pale-yellow flowers. Native to central Asia.

For previous introduction see 111160.

116699. *CICER FLEXUOSUM* Lipsky. Fabaceae.

No. 13.

For previous introduction and description see 115070.

116700. *OXYTROPIS* sp. Fabaceae.

No. 35.

116701. *OXYTROPIS* sp. Fabaceae.

No. 36.

116702. *OXYTROPIS* sp. Fabaceae.

No. 37.

116703. *VICIA TENUIFOLIA* Roth. Fabaceae.

No. 65.

For previous introduction see 115095.

116704. *ULMUS PUMILA* L. Ulmaceae. Chinese elm.

From Nebraska. Seeds presented by H. A. McComb, University of Nebraska Experiment Station, North Platte. Received June 24, 1936.

Tree No. 3, selection made at North Platte from plants received as *Ulmus pumila arborea* under P. I. No. 32830. This tree is of *Ulmus pumila* type and has escaped winter injury when most other trees of the species were injured. Seedlings from it are reported to be uniform in appearance and to have a good branching system.

For previous introduction see 108558.

116705. *EUCHLAENA MEXICANA* Schrad. Poaceae. Teosinte.

From Guatemala. Seeds presented by Dr. Wilson Popenoe, United Fruit Co. Received June 30, 1936.

116706. *GOSSYPIUM* sp. Malvaceae.

Cotton.

From Cuba. Seeds presented by Dr. Gonzalo M. Fortun, Director, Estación Experimental Agronomica, Santiago de las Vegas. Received June 17, 1936.

Marcucci cotton. Originally from Guatemala, the seed has developed satisfactorily in Cuba, but requires a long time to mature the very large bolls.

116707. *ALEURITES CORDATA* (Thunb.) Muell. Arg. Euphorbiaceae.

Japan tung-oil tree.

From Japan. Seeds purchased from the Yokohama Nursery Co., Yokohama. Received January 1, 1936. Numbered in June 1936.

A small or medium-sized tree, native to southern Japan. It is closely related to the tung tree of China, *Aleurites fordii*, but is more tropical in character. The seeds are considerably smaller than tung seeds and run nearly 400 to the pound. They yield a valuable drying oil, apparently but little inferior to tung oil. The seeds seem to require a somewhat longer time than tung seeds for germination.

116708 to 116710. *MELILOTUS* spp. Fabaceae. Sweetclover.

From the Union of Soviet Socialist Republics. Seeds presented by N. I. Scharapov, former Head of Department of New Cultures and Introduction, Institute of Plant Industry, Leningrad. Received June 23, 1936.

116708. *MELILOTUS DENTATA* (Waldst. and Kit.) Pers.

No. 456/6, originally from western Siberia.

116709. *MELILOTUS TAURICA* (Bieb.) Seringe.

No. 9095, originally from the Crimea.

For previous introduction see 67854.

116710. *MELILOTUS WOLGICA* Poir.

No. 11620, originally from Kuybishev Province.

For previous introduction see 27202.

116711 and 116712.

Plants growing at the Barbour Lathrop Plant Introduction Garden, Savannah, Ga. Originally received from China, June 24, 1927; collected by F. A. McClure, Bureau of Plant Industry. Renumbered in June, 1936.

116711. *PHYLLOSTACHYS* sp. Poaceae. Bamboo.

No. 725. November 3, 1926. *Shat sam chuk, mah chuk*. From Chiuwashaan, Anhwei Province. A medium-sized, wild bamboo 4 to 4.5 meters high and 1.5 to 2 centimeters in diameter, with edible shoots. The culms are nearly solid with very small central chambers; they are used for walking sticks, whipsticks, etc., but not for weaving. The nodes are prominent; the branches, two at each node, are unequal, and the leaves are small to medium sized.

116712. *ARUNDINARIA* sp. Poaceae. Bamboo.

No. 726. November 3, 1926. *Ltu Ma chuk*. Obtained at Chiuwashaan, An-

116711 and 116712—Continued.

hwei Province. A small monopodial bamboo, found wild in this region. It is characterized by large drooping leaves, few branches, nearly equal, rising at a sharp angle with the stiff cylindrical culm. Nodes not prominent, buds very flat, and indentation slight. Culms thick-walled, with small central cavity containing very little pith. Culm sheaths thin, tips ephemeral, but the bases cling rather tenaciously. Rhizomes hard, brittle, shiny, light brown when mature. Roots few and very stiff. There are many nodes of the rhizomes without buds.

116713 to 116767.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received June 5, 1936.

Nos. 116713 to 116718 were collected at Saharanpur, United Provinces, April 19 and 20, 1936.

116713. *ACACIA MODESTA* Wall. Mimosaceae.

No. 693. From the Saharanpur Gardens, April 21, 1936.

For previous introduction and description see 116455.

116714. *AGERATUM HOUSTONIANUM* Mill. Asteraceae.

No. 599.

116715. *ALLIUM ASCALONICUM* L. Liliaceae. Shallot.

No. 678.

116716. *APIUM GRAVEOLENS* L. Apiaceae. Celery.

No. 682. *Ajwain*. Grown commercially for the seed.

116717. *BARRINGTONIA ACUTANGULA* (L.) Gaertn. Lecythidaceae.

No. 703. From the Saharanpur Gardens. A medium-sized evergreen tree with obovate leaves about 5 inches long and long pendulous racemes of small pink flowers. The wood is soft and white with a pretty silver grain and is used for furniture. Native to India.

116718. *BENINCASA HISPIDA* (Thunb.) Cogn. Cucurbitaceae. Waxgourd.

No. 681. *Pethi*. Fruit light green with ashy bloom; flesh white, solid, often candied, also used as curry vegetable; keeps well.

116719 to 116722. *BRASSICA OLERACEA* BO-TRYTIS L. Brassicaceae. Cauliflower.

Phulgobi. From Amritsar, Punjab, April 24, 1935.

116719. No. 715. A small-leaved variety.

116720. No. 716. Said to reach a diameter over a foot.

116721. No. 718. A small-leaved variety.

116722. No. 719. Said to be one of the largest varieties. Cauliflowers are dried here for summer use.

116723. *BUDDLEIA MADAGASCARIENSIS* Lam. Loganiaceae.

No. 697. From the Saharanpur Gardens, April 21, 1936. An attractive shrub 6 feet high, with drooping branches and silvery leaves.

116713 to 116767—Continued.

Nos. 116724 to 116726 were collected at Amritsar, Punjab, April 20 to 26, 1936.

116724. *CANAVALIA ENSIFORMIS* (L.) DC. Fabaceae. Jackbean.

No. 732. *Tras bin*. A bush form which grows 5 feet high without support. It is grown for the edible green pods.

116725 to 116735. *CITRULLUS VULGARIS* Schrad. Cucurbitaceae. Watermelon.

Nos. 116725 and 116726 were received as *Citrullus fistulosus*.

116725. No. 722. *Safed Tinda*. Fruits said to come from Benares, are about the size of a tangerine, greenish white with a pronounced concavity on the blossom end. They are delicious when cooked.

116726. No. 723. *Hara Tinda*. A favorite Punjab vegetable. Some specimens are nearly 6 inches in diameter, but those now on sale are like small tangerines.

Nos. 116727 to 116730 were collected at Saharanpur from April 16 to 20, 1936.

116727. No. 548. *Tarbuza*. Fruit globose, 8 inches in diameter, with widely spaced ribs of darker green; flesh red, insipid.

116728. No. 646. Fruit subglobose, 14 inches in diameter, dark green, obscurely and finely veined and ribbed with darker green; flesh red, good quality, fairly sweet, but very seedy; rind thick.

116729. No. 659. Fruit subglobose, 15 inches long, dark green with indistinct darker markings; rind thick; flesh red, sweet.

116730. No. 675. A mixed sample of local varieties.

Nos. 116731 to 116741 were collected April 24 to 26, 1936, at Amritsar, Punjab.

116731 and 116732. *Tarbuza*. Said to be a form grown locally that reaches a weight of 20 pounds.

116731. No. 728. 116732. No. 729.

116733. No. 730. *Tarbuza*. Said to be the largest local form, which reaches a weight of 40 pounds.

116734. No. 731. Said to be one of the smaller local sorts, weighing 10 to 15 pounds.

116735. No. 734. *Tarbuza*. Reported as the smallest of local sorts, not over 10 pounds in weight.

116736 to 116738. *CUCUMIS MELO* L. Cucurbitaceae. Muskmelon.

From Amritsar, Punjab, April 25 and 26, 1936.

116736. No. 726. *Maddar Karbuza*. A pale round smooth-skinned form grown at Maddar, near Kasur.

116737. No. 727. *Tinfutia*. A form said to be large, green, and netted; grown near Amritsar at Chamiani. Considered very good.

116738. No. 733. *Tarsini*. A melon 12 inches long, brownish yellow, netted, green-fleshed, and weighing up to 10 pounds. Considered one of the best local varieties.

116713 to 116767—Continued.

116739 to 116741. *CUCUMIS SATIVUS* L.
Cucurbitaceae. Cucumber.

Collected at Amritsar, Punjab, April 24 and 25, 1936.

116739. No. 721. Said to be a banana-like, furrowed fruit up to 18 inches long, greenish white to white. Used as a salad vegetable.

116740. No. 724. Fruit white, over 2 feet long.

116741. No. 725. Fruit yellow, thick, 8 by 3 to 3½ inches.

116742. *CUCURBITA MOSCHATA* Duchesne.
Cucurbitaceae. Cushaw.

No. 564. From Saharanpur, United Provinces, April 17, 1936. Fruit smooth, conspicuously ribbed, 1 foot long by 14 inches across, green, blotched and spotted with yellow brown; flesh yellow; will keep for 6 months.

116743. *CUCURBITA PEPO* L. Cucurbitaceae. Pumpkin.

No. 729. *Chini Kaddu*. From Amritsar, Punjab, April 24, 1936. A smooth white globose summer squash, the size of a grapefruit.

Nos. 116744 to 116751 were collected at the Saharanpur Gardens, United Provinces, April 17 to 21, 1936.

116744. *DERRIS SCANDENS* (Roxb.) Benth.
Fabaceae.

No. 702. A woody climber with compound leaves 3 to 6 inches long, composed of 9 to 19 leaflets, leathery oblong, and 1 to 2 inches in length. The pale rose flowers are in dense axillary racemes. Native to the East Indies.

For previous introduction see 104663.

116745 and 116746. *DURANTA REPENS* L.
Verbenaceae. Skyflower.

An attractive hedge shrub with long racemes of flowers.

116745. No. 704. A purple form.

116746. No. 705. A white form.

116747. *FICUS BENJAMINA COMOSA* (Roxb.) Kurz. Moraceae.

No. 555. A large tree with a dense spreading top and yellow fruits.

For previous introduction see 99569.

116748. *FRAGARIA YESCA* L. Rosaceae.
Alpine strawberry.

No. 677. A mixed sample, said to have come from Europe.

For previous introduction see 113549.

116749. *HIBISCUS COLLINUS* Roxb. Malvaceae.

No. 699. An arborescent hibiscus with cordate three-lobed leaves about 4 inches long and pink, dark-centered flowers 2 to 3 inches across. Native to the western peninsula of India.

116750. *LAGERSTROEMIA PARVIFLORA* Roxb.
Lythraceae. Crapemyrtle.

No. 552. An evergreen timber tree native to the East Indies and closely related to the well-known crapemyrtle (*Lagerstroemia indica*). The white, fragrant flowers, less than an inch across, are in

116713 to 116767—Continued.

terminal or axillary panicles, and the wood is tough, elastic, and durable.

For previous introduction see 61608.

116751. *MACADAMIA TERNIFOLIA* F. Muell.
Proteaceae. Queensland-nut.

No. 695. An evergreen tree up to 50 feet high, native to eastern Australia. It is cultivated for its edible nuts which have sweet white flesh with the flavor of chestnuts, incased in a shell which is typically very hard.

For previous introduction see 111419.

116752. *MOMORDICA CHARANTIA* L. Cucurbitaceae. Balsam-pear.

No. 676. *Karela*. From Saharanpur, United Provinces, April 20, 1936.

For previous introduction see 116052.

116753. *MORINGA OLEIFERA* Lam. Moringaceae. Horseradish-tree.

No. 735. *Shwaniya*. From Amritsar, Punjab, April 26, 1936.

For previous introduction see 116527.

116754. *MORUS NIGRA* L. Moraceae.
Black mulberry.

No. 712. From Amritsar, Punjab, April 23, 1936.

For previous introduction and description see 116528.

Nos. 116755 to 116760 were collected in the Saharanpur Gardens, April 21, 1936.

116755. *PHLOGACANTHUS THYRSIFLORUS* (Roxb.) Nees. Acanthaceae.

No. 698. A shrub up to 6 feet high, with few shoots from the roots and few branches, but attractive shiny leaves and mahogany flowers. This plant likes shade.

For previous introduction see 103487.

116756. *RIVINA HUMILIS* L. Phytolaccaceae. Rouge-plant.

No. 690. A small shrub about 3 feet high, with small pink or nearly white flowers and attractive red berries. Native to the West Indies.

For previous introduction see 34010.

116757. *BRACHYCHITON BIDWILLI* Hook.
Sterculiaceae.

No. 694. An evergreen shrub or small tree native to Queensland, Australia. The alternate leaves are usually deeply three-lobed. The red or pink axillary flowers are tubular and about an inch long.

116758. *TERMINALIA ARJUNA* (Roxb.) Wight and Arn. Combretaceae.

No. 706.

For previous introduction and description see 116065.

116759. *TERMINALIA BELLERICA* (Gaertn.) Roxb. Combretaceae.

No. 707.

For previous introduction and description see 116099.

116760. *JACQUINIA AURANTIACA* Ait. Theophrastaceae.

No. 691. A dense shrub, 10 feet high, spreading and covered with flowers in

116713 to 116767—Continued.

May. In Hawaii, where this plant is native, it becomes a tree with obovate-lanceolate leaves over an inch long and terminal racemes of small yellow flowers.

116761. TRICHOSANTHES ANGUINA L. Cucurbitaceae. **Snakegourd.**

No. 736. *Chachinda*. From Amritsar, Punjab, April 26, 1936.

For previous introduction and description see 116548.

Nos. 116762 to 116767 were collected at Saharanpur, United Provinces, April 20 and 21, 1936.

116762. VENTILAGO MADRASPATANA Gaertn. Rhamnaceae.

No. 687. From the Saharanpur Gardens. A tropical climbing shrub with alternate leathery, feather-veined leaves and simple paniculate spikes of small greenish flowers. Native to the East Indies.

116763. VERBESINA LINDENII (Schultz Bip.) Blake. Asteraceae.

No. 696. From the Saharanpur Gardens. A tropical herbaceous perennial 8 to 10 feet high, with rough hastate leaves 4 inches long and deep-yellow flower heads. Native to tropical America.

116764 and 116765. VICIA FABA L. Fabaceae. **Broadbean.**

Cultivated for the green beans and possibly a recent European introduction.

116764. No. 679. **116765.** No. 680.

116766. VIGUIERA DENTATA HELIANTHOIDES (H. B. K.) Blake. Asteraceae.

No. 700. From the Saharanpur Gardens. An erect herbaceous perennial up to 6 feet high, with large, ovate-lanceolate or subcordate pubescent leaves and yellow flower heads about 1½ inches across. Native to Cuba.

116767. WOODFORDIA FRUTICOSA (L.) Kurz. Lythraceae.

No. 689. From the Saharanpur Gardens. An attractive spreading bush covered with red flowers.

For previous introduction see 103509.

116768. PHYLLOSTACHYS sp. Poaceae. **Bamboo.**

Plants growing at the Plant Introduction Gardens at Savannah, Ga., and Chico, Calif. Originally collected in China by Frank N. Meyer. Received in June 1908. Renumbered in June 1936.

A hardy running bamboo about 18 feet high, in general habit strongly resembling *Phyllostachys aurea*. The more noticeable differences are in (1) the entire absence in the present species of the shortened internodes in the lower part of the culm, common in *P. aurea*, and (2) the more conspicuous spotting of the culm sheaths. Less apparent but even more important differences are the somewhat more prominent ligules of the leaf sheaths and culm sheaths and the shorter marginal cilia of the culm-sheath ligules.

This bamboo, which cannot be identified with the original introduction number or its Chinese name, has been grown under P. I. No. 23234, the description for which does not fit it.

116769 to 116796.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received June 2, 1936.

Unless otherwise stated, all this material was collected in the Saharanpur Gardens, Saharanpur, United Provinces, April 17 to 19, 1936.

116769. ADINA CORDIFOLIA (Roxb.) Benth. and Hook. Rubiaceae.

No. 558. A large handsome deciduous tree found in the foothills of the Himalayas from Jumna eastward up to 3,000 feet altitude. The leaves are cordate and the yellow flowers are borne in small heads.

For previous introduction see 52282.

116770. ALTHAEA ROSEA (L.) Cav. Malvaceae. **Hollyhock.**

No. 529. From Bikaner, Bikaner State, April 12, 1936.

116771. DALBERGIA SISSOO Roxb. Fabaceae.

No. 602. *Shesham*. A quick-growing, drought-resistant tree, used both as a shade tree and for timber. Common in this region.

For previous introduction see 94180.

116772. ARUCARIA CUNNINGHAMII Ait. Pinaceae.

No. 556.

An evergreen tree up to 200 feet high, with whorled spreading branches and leaves of two kinds; on young trees and lateral branches the leaves are usually lanceolate or triangular, about one-half inch long; on old trees and cone-bearing branches the leaves are shorter, crowded, and overlapping. Native to eastern Australia.

116773 and 116774. BASELLA RUBRA L. Basellaceae.

Pai Sag.

For previous introduction and description see 114864.

116773. No. 662. The common type.

116774. No. 663. A form said to have larger leaves.

116775. BAUHINIA sp. Caesalpinaceae.

No. 573. A huge climber with large leaves.

116776. BOMBAX MALABARICUM DC. Bombacaceae. **Cotton tree.**

No. 575. *Simul*. A very large deciduous tree with branches in whorls, spreading horizontally, and the trunk with large thorny buttresses covered with large corky prickles. The inner bark yields a good fiber, suitable for cordage; the seeds yield the so-called silk-cotton, too short and too soft to be spun, but largely used for stuffing pillows and for guncotton. The flower buds are eaten as a potherb. It is native to the hotter forests of India and Burma.

For previous introduction see 50716.

116777. BURSERA SERRATA Wall. Balsameaceae.

No. 577. A large balsamiferous tree with pinnate leaves and very small flow-

116769 to 116796—Continued.

ers in lax axillary panicles. Native to India.

116778. CASSIA NODOSA Buch.-Ham. Caesalpiniaceae.

No. 562. A moderate-sized, deciduous tree with long drooping branches and glossy bipinnate leaves. In the spring it bears a profusion of beautiful pink, rose-scented flowers in dense, long-stalked racemes. The leaves and flowers appear at the same time. Native to northeastern India.

For previous introduction see 110864.

116779. CASSIA SURATTENSIS Burm. f. Caesalpiniaceae.

No. 593. A tropical leguminous shrub or small tree up to 15 feet high, with pale-green compound glaucous leaves and clusters of pale-yellow flowers. Native to the East Indies.

For previous introduction see 112082.

116780. CASUARINA GLAUCA Sieber. Casuarinaceae. Beefwood.

No. 585. *Pulak*. A small bushy tree.

116781. EHRETIA LAEVIS Roxb. Boraginaceae.

No. 553. A subtropical shrub or small tree 12 feet high with white flowers followed by small orange fruits. Native to southern Asia.

For previous introduction see 74697.

116782. GUAZUMA ULMIFOLIA Lam. Sterculiaceae.

No. 504. *Ludraksh*. From Jaipur City, April 9, 1936. An evergreen tree 10 to 50 feet high, with ovate to lanceolate leaves 2 to 8 inches long and panicles of very small yellow flowers. Native to tropical America.

116783. KIGELIA PINNATA (Jacq.) DC. Bignoniaceae.

No. 567.

For previous introduction see 106507.

116784. LIVISTONA CHINENSIS (Jacq.) R. Br. Phoenicaceae. Chinese fan palm.

No. 572.

For previous introduction see 105729.

116785. MIMUSOPS sp. Sapotaceae.

No. 520. *Kirmi*. From Bikaner, Bikaner State, April 11, 1936. An attractive evergreen tree; fruit yellow, elongate, 1½ inches long, sweet, slightly acid, like a persimmon.

116786. PHASEOLUS COCCINEUS L. Fabaceae. Scarlet runner bean.

No. 670. From Saharanpur, United Provinces, April 19, 1936. Grown for the pods and green beans. Said to have come from Africa.

116787. PINUS sp. Pinaceae.

No. 595. *Chil*. A pine that thrives here, becoming about 60 feet tall.

116788. PROSOPIS CHILENSIS (Molina) Stuntz. Mimosaceae. Algaroba.

No. 581.

For previous introduction and description see 116057.

116769 to 116796—Continued.

116789. PTERYGOTA ALATA (Roxb.) R. Br. Sterculiaceae.

No. 549. A large tree, native to India, with ash-colored bark and yellow-tomentose branchlets. The large heart-shaped leaves, 10 inches long by 7 inches wide, are clustered at the ends of the branches. The panicles of tomentose flowers, without petals, are shorter than the leaves.

For previous introduction see 97578.

116790. PRUNUS sp. Amygdalaceae.

No. 914. From Baijnath, Kangra Valley, Punjab, at 3,000 feet altitude, May 22, 1936. A large attractive well-formed tree 40 feet high with a trunk 2 feet in diameter. Flowers large, pale pink, semi-double. Fruit thin fleshed, bitter. The tree grows to 6,000 feet altitude and in winter is covered with snow.

116791. SABAL sp. Phoenicaceae.

No. 586. The thatch palm of Bermuda.

116792. SALVADORA OLEOIDES Decne. Salvadoraceae.

No. 527. *Jal*. From Bikaner, Bikaner State, April 12, 1936. A large evergreen shrub or small tree found growing in very dry situations, with thick oval leaves about 2 inches long and small greenish-white flowers in erect clustered spikes, followed by translucent drupes. Native to India.

116793. SCHOTIA BRACHYPETALA Sond. Caesalpiniaceae.

No. 550. A large shrub or small tree with large leathery leaves and showy crimson flowers in dense panicles. Native to southern Africa.

116794. ERYTHROPSIS PALLENS Ridl. Sterculiaceae.

No. 591. A tree with oval or rounded, densely hairy leaves, three- to five-lobed, about 8 inches long and axillary panicles of bright-yellow flowers. Native to northwestern India.

116795. TOONA CILIATA Roemer. Meliaceae. Toon tree.

No. 590. *Tun*. A large tropical tree 50 to 80 feet high, with nearly evergreen foliage and white, honey-scented flowers. The fine red wood, which is used for furniture, carvings, and for making cigar boxes, is very durable and is not attacked by termites. Native to India.

For previous introduction see 81205.

116796. ANOGBISSUS PENDULA Edgeworth. Combretaceae.

No. 563. A bush or small tree with pendulous branches, elliptic leaves about 1 inch long, and small leathery two-winged fruits packed horizontally in dense heads. Native to northwestern India.

116797 to 116801. TRITICUM AESTIVUM L. Poaceae. Common wheat.

From Australia. Seeds presented by the American consulate, Melbourne, Victoria, through the Secretary of State, Washington, D. C. Received June 30, 1936.

Fair average quality Victorian wheat.

116802 to 116853.

From India. Seeds collected by Walter Koelz, Bureau of Plant Industry. Received June 16, 1936.

Unless otherwise stated, all of this shipment was collected at Peshawar, North West Frontier Province, May 2 to 4, 1936.

116802 and 116803. *ABELMOSCHUS ESCULENTUS* (L.) Moench. Malvaceae.

Okra.

116802. No. 793. *Bhendi*. A short, white, spiny form.

116803. No. 794. *Bhendi*. Smooth, green with long pods.

116804 and 116805. *ALLIUM CEPA* L. Liliaceae.

Onion.

116804. No. 789. *Lal pujaz*. A red onion harvested in May, keeps until October.

116805. No. 804. *Safed pujaz*. A white onion.

116806. *AMYGDALUS PERSICA* L. Amygdalaceae.

Peach.

No. 819. *Aru*. A native yellow peach, smaller than American peaches.

116807. *BENINCASA HISPIDA* (Thunb.) Cogn. Cucurbitaceae.

Waxgourd.

No. 795. *Pethi*. An elongate form used for candying in spiced sugar.

For previous introduction see 114866.

116808 to 116810. *BETA VULGARIS* L. Chenopodiaceae.

Common beet.

116808. No. 797. *Palag*. A large-leaved form that is used as a vegetable all summer.

116809. No. 827. *Khatkan palag*. From Lahore, May 1, 1936. A large-leaved variety, cultivated as a potherb.

116810. No. 835. *Palag*. From Parachinar, Kurram Agency, North West Frontier Province; presented by the Government Gardens. Used as a potherb.

116811 to 116813. *BRASSICA OLERACEA BOTRYTIS* L. Brassicaceae.

Cauliflower.

116811. No. 805. *Phulgobi*. Said to mature in 3 months.

116812. No. 806. *Phulgobi*. Said to be sown in June and to mature in 4 months in the hottest season.

116813. No. 807. *Phulgobi*. A very large form with heads over 12 inches across.

116814. *CAJANUS INDICUS* Spreng. Fabaceae.

Pigeonpea.

No. 822. *Harrar*. A shrub, the seeds of which are used for food.

116815. *CANAVALIA ENSIFORMIS* (L.) DC. Fabaceae.

Jackbean.

No. 786.

116816 and 116817. *CAPSICUM ANNUUM* L. Solanaceae.

Common redpepper.

116816. No. 823. *Mirch*. Fruits 3 to 4 inches long.

116817. No. 824. *Mirch*. Fruits rounded, 1 inch in diameter.

116818 to 116823. *CITRULLUS VULGARIS* Schrad. Cucurbitaceae.

Watermelon.

116802 to 116853—Continued.

116818. No. 745. From Lahore, Punjab, April 20, 1936. Fruit elongate, up to 20 pounds weight, medium green, finely netted with darker green. Rind thin; flesh red of good texture, sweet.

116819. No. 808. *Tarbuza*. Fruit elongated, sweet, weight up to 20 pounds.

116820. No. 809. A round melon, said to be good.

116821. No. 810. A good round form.

116822. No. 811. From Lahore, Punjab, May 1, 1936. Fruit round, medium green, faintly netted with darker green, weight about 20 pounds.

116823. No. 812. From Lahore, Punjab, May 1, 1936. Fruit rounded, weight up to 20 pounds, medium green, faintly netted with darker green; rind thin; flesh red, sweet, and of good texture.

116824 to 116828. *CUCUMIS MELO* L. Cucurbitaceae.

Muskmelon.

116824. No. 740. From Lahore, Punjab, April 28, 1936. Fruits somewhat flattened, about 6 inches long by 4 inches thick, pale yellow, coarsely and strongly netted; flesh pale salmon, of good flavor and a good keeper.

116825. No. 796. *Kharbuza* or *kakri*, though the name *kakri* is used elsewhere only for cucumbers. Fruit ellipsoid, about 1 foot long.

116826. No. 803. *Kharbuza*. A round muskmelon.

116827. No. 845. Said to have been imported from somewhere in southern India. Fruits rounded, somewhat flattened, 5 inches through, lemon yellow, more or less blotched with dark green, smooth. Flesh thin, white, usually insipid, but a good shipper.

116828. No. 802. *Sarda*. Described as the "best" of melons, about 1 foot long, green.

116829 and 116830. *CUCUMIS SATIVUS* L. Cucurbitaceae.

Cucumber.

116829. No. 791. *Khira*. A short thick cucumber, 6 by 2½ by 3 inches.

116830. No. 834. *Khira*. Presented by the Government Gardens at Parachinar, North West Frontier Province. A large round cucumber.

116831. *CUCURBITA MAXIMA* Duchesne. Cucurbitaceae.

Squash.

No. 799. *Pethi*. A large rounded early form used as a vegetable.

116832 to 116834. *CUCURBITA PEPO* L. Cucurbitaceae.

Pumpkin.

116832. No. 801. *Kaddu*. A large red-brown form that keeps well.

116833 and 116834. From Parachinar, Kurram Agency, North West Frontier Province, May 8, 1936. Gift of the Government Gardens.

116833. No. 832. 116834. No. 833.

116835. *DAUCUS CAROTA* L. Apiaceae.

Carrot.

No. 820. *Pila gadjas*. A yellow carrot.

116802 to 116853—Continued.

- 116836.** DIOSPYROS sp. Diospyraceae.
No. 815. An attractive tree 18 inches or more in diameter, growing in the mountainous districts; fruit about 1 inch in diameter, red, turning black when ripe; sold dried in the market.
- 116837.** DOLICHOS LABLAB L. Fabaceae.
Hyacinth-bean.
No. 790. *Hara sem.* The green pods are used as food, but the flavor is stronger than that of string beans.
- 116838.** FICUS sp. Moraceae.
No. 701. From the Saharanpur Gardens, United Provinces, April 21, 1936. A large spreading evergreen tree up to 50 feet high and 4 feet in diameter.
- 116839** and **116840.** MEDICAGO SATIVA L. Fabaceae.
Alfalfa.
From Lahore, Punjab, May 1, 1936. Native alfalfa, widely used as fodder in the Punjab.
- 116839.** No. 829. **116840.** No. 828.
- 116841.** GREWIA ASIATICA L. Tiliaceae.
No. 785. *Phalsi.* From Lahore, Punjab, May 2, 1936. A small hazellike tree about 10 feet high, native to the East Indies and cultivated throughout India. The small dark-purple berry is pleasantly acid and is used in sherbet and for making beverages.
For previous introduction see 51006.
- 116842.** MORUS ALBA L. Moraceae.
White mulberry.
No. 830. *Shahut.* From Kobat, North West Frontier Province, May 7, 1936. Fruit whitish, 2½ inches long by three-eighths of an inch in diameter, sweet, with a peachlike odor.
- 116843** and **116844.** PISUM SATIVUM L. Fabaceae.
Pea.
116843. No. 787. *Mattar.* A short-podded form.
116844. No. 788. *Mattar.* A long-podded form with white flowers; considered superior to No. 787 (P. I. 116843).
- 116845.** PRUNUS ARMENIACA L. Amygdalaceae.
Aprioot.
No. 825. *Kumarie.* A tree up to 30 feet high; fruit said to be inferior to the Afghan sorts.
- 116846.** RHAMNUS sp. Rhamnaceae.
No. 844. *Mamurie.* A dense and leafy attractive shrub up to 5 feet high; the fruits are sold in the market.
- 116847.** SALIX sp. Salicaceae. Willow.
No. 843. From Parachinar, Kurram Agency, North West Frontier Province, May 8, 1936. Presented by the Government Gardens. A well-formed, quick-growing tree.
- 116848** to **116850.** SOLANUM MELONGENA L. Solanaceae.
Eggplant.
116848. No. 798. *Bengan.* A long dark-purple form.
116849. No. 800. *Bengan.* A round, dark-purple form.
116850. No. 813. From Lahore, Punjab, May 1, 1936. A long black form.

116802 to 116853—Continued.

- 116851.** SPINACIA OLERACEA L. Chenopodiaceae.
Common spinach.
No. 792. *Palag.* Said to be a small-leaved form.
- 116852.** VIGNA SINENSIS (Torner) Savi. Fabaceae.
Cowpea.
No. 821. *Lobia.* Cultivated for the green pods.
- 116853.** ZEA MAYS L. Poaceae. Corn.
No. 814. *Makki.* From the Government Gardens seed stock; the type of corn grown in this region.
- 116854.** AGASTACHE CANA (Hook.) Wootton and Standl. Menthaceae.
From Texas. Seeds presented by Miss Ruth Yeates, El Paso. Received December 1, 1934. Numbered in May 1936.
- 116855.** STRELITZIA REGINAE Banks. Musaceae.
Bird-of-paradise-flower.
From Australia. Seeds presented by J. Howard Johnson, St. Peters, South Australia. Received June 30, 1936.
For previous introduction see 78232.
- 116856** to **116896.**
From China. Seeds obtained from Albert N. Steward, Department of Botany, College of Agriculture and Forestry, University of Nanking, Nanking. Received June 30, 1936.
Collected in Hunan Province in October 1935, and, unless otherwise stated, they were collected at Ma-Ling-Tung, Sinning Hsien.
- 116856.** ACTINIDIA sp. Dilleniaceae.
No. 516. A tree 30 feet high, growing in the shade on a slope at 2,000 feet altitude. Fruits edible, greenish, turning dark purple when ripe.
- 116857.** ARISAEMA sp. Araceae.
No. 477. An herb 3 feet high collected in a shady moist valley at 1,875 feet altitude. Fruits greenish.
- 116858.** LINDERA GLAUCA (Sieb. and Zucc.) Blume. Lauraceae.
No. 642. Collected at 1,875 feet altitude. A deciduous shrub up to 12 feet high, with oblong-elliptic leaves, pubescent beneath, 1 to 2 inches long, and small yellow flowers followed by black drupes.
- 116859.** LINDERA REFLEXA Hemsl. Lauraceae.
No. 156. From I-Chia-Ao, Changning Hsien, at 937 feet altitude, on a brushy slope. A shrub about 8 feet high, with membranous rotund-ovate leaves about 3 inches long and red fruits. Native to southern China.
- 116860.** CALLICARPA DICHOTOMA (Lour.) K. Koch. Verbenaceae.
No. 487. A shrub 5 feet high, with purplish stems and red fruits; collected at 937 feet altitude in a forest.
- 116861.** CALLICARPA GIRALDIANA Hesse. Verbenaceae.
No. 488. From an exposed slope at 937 feet altitude. A deciduous Chinese shrub up to 10 feet high, with membranous light-green leaves, cymes of pink flowers, and dense clusters of round berrylike light-

116856 to 116896—Continued.

purple fruits which hang on after the leaves have fallen.

For previous introduction see 93879.

116862. CASTANEA HENRYI (Skan.) Rehd. and Wils. Fagaceae. Chestnut.

No. 517. A tree 50 feet high found on a slope in the forest at 1,875 feet altitude.

For previous introduction see 114344.

116863. CASTANEA SEGUINII Dode. Fagaceae.

No. 666. A shrub 4 feet high found on a brushy slope at 1,875 feet altitude.

For previous introduction and description see 114345.

116864. CLERODENDRUM CYRTOPHYLLUM Turcz. Verbenaceae.

No. 457. Collected at 1,875 feet altitude. A vigorous spreading shrub from 2 to 3 feet high, sending up many stalks. The leaves are glabrous, light green, and of somewhat fetid odor. The small white flowers with large rosy bracts are followed by blue berries.

For previous introduction see 43021.

116865. CUCUBALUS BACCIFER L. Silenaceae.

No. 543. A pubescent herb with white flowers and green fruits which become black when ripe; collected at 2,000 feet altitude. Native to Europe and northern Asia.

116866. DAPHNIPHYLLUM sp. Euphorbiaceae.

No. 616. A tree 15 feet high, with glabrous leaves and black fruits, found beside a stream in a valley at 1,875 feet altitude.

116867. DICHROA sp. Hydrangeaceae.

No. 473. A shrub 7 feet high, with greenish flowers, found in a forest on a slope at 1,875 feet altitude.

116868. EUONYMUS ACANTHOCARPUS Franch. Celastraceae.

No. 655. Collected on a slope at 1,875 feet altitude. A shrub up to about 12 feet high, with leathery lanceolate or ovate-lanceolate leaves and small greenish flowers. Native to south-central China.

116869. EURYA JAPONICA Thunb. Theaceae.

No. 493. A shrub 5 feet high, with purplish-black fruits, found on a shady slope at 1,875 feet altitude.

For previous introduction see 91249.

116870. EUSCAPHIS JAPONICA (Thunb.) Dipp. Staphyleaceae.

No. 95. From I-Chia-Ao, Changning Hsien, on a bushy slope at 687 feet altitude. A shrub or small tree with compound leaves composed of 7 to 11 ovate-lanceolate serrate leaflets 1 to 3 inches long. The small white flowers, in upright panicles, are followed by brown-red pods which open, exposing the steel-blue fruits.

For previous introduction see 105600.

116871. EVODIA OFFICINALIS Dode. Rutaceae.

No. 180. From Yang-Shan, Changning Hsien, at 2,125 feet altitude. A shrub or small tree up to about 15 feet high, with pinnate leaves having 7 to 15 ovate or

116856 to 116896—Continued.

elliptic ovate leaflets and corymbs of small greenish-yellow or greenish-white flowers followed by small red pods containing black seeds. Native to central and western China.

116872. GLEDITSIA SINENSIS Lam. Caesalpiniaceae. Chinese honeylocust.

No. 635. A large tree with pinnate leaves, greenish flowers, and purple-black pods over 10 inches long. Growing along a stream at 1,875 feet altitude.

For previous introduction see 105609.

116873. ILEX sp. Aquifoliaceae.

No. 439. A shrub about 5 feet high, with black fruits, growing on a shady slope at 1,875 feet altitude.

116874. LONICERA MACRANTHA (D. Don) Spreng. Caprifoliaceae. Honeysuckle.

No. 632. A shrubby honeysuckle with rather large white flowers which fade to yellow, and purple black fruits. Found growing along a stream at 1,875 feet altitude.

For previous introduction see 47708.

116875. MELASTOMA DODECANDRUM Lour. Melastomaceae.

No. 2. From I-Chia-Ao, Changning Hsien, on an open grassy slope at 625 feet altitude. A prostrate perennial shrub which bears beautiful pink roselle flowers all summer long. The flowers last only one day, but because of their great number, the shrub is always well covered. The fruits are said to be eaten, but have the lack of flavor so common in Chinese fruits.

For previous introduction see 55443.

116876. MELIOSMA sp. Sabiaceae.

No. 584. A tree about 35 feet high, with deep-red flowers; found on a brushy slope at 2,000 feet altitude.

116877. PAEDERIA FOETIDA L. Rubiaceae.

No. 436. A slender attractive vine with glabrous, ovate or lanceolate leaves, grayish beneath, on long petioles. The small pink flowers are in branching cymes. Any part of the plant, when bruised, emits a most offensive odor. Native to south-eastern Asia.

For previous introduction see 99746.

116878. POLYGONATUM sp. Convallariaceae.

No. 474. An herb with leaves circinate at apex, growing in shade in forests at 1,875 feet altitude.

116879. PYRACANTHA sp. Malaceae.

No. 698. A shrub 3 feet high with red fruits; found on rocky slopes at 1,875 feet altitude.

116880. RHAMNUS CRENATA Sieb. and Zucc. Rhamnaceae. Japanese buckthorn.

No. 440. A shrub 8 feet high with black fruits, growing on an exposed slope at 1,875 feet altitude.

For previous introduction see 99239.

116881. RHAMNUS sp. Rhamnaceae.

No. 676. A shrub 3 feet high with glabrous leaves and deep-red flowers, found on shady slopes at 1,875 feet altitude.

116856 to 116896—Continued.

116882. RHAMNUS sp. Rhamnaceae.

No. 700. A shrub 8 feet high with black fruits; found on rocky slopes in forests at 1,875 feet altitude.

116883. RHUS SYLVESTRIS Sieb. and Zucc. Anacardiaceae.

No. 468. A tree 12 feet high with 7 to 12 ovate-oblong leaflets and loose axillary panicles of small brownish-yellow fruits, more or less flattened. The handsome foliage turns dark-red or scarlet in the autumn. Found on an exposed slope at 1,875 feet altitude.

For previous introduction see 111377.

116884. SMILAX CHINA L. Smilacaceae. Greenbrier.

No. 495. A shrubby species with bright-red fruits, found on an open slope at 1,875 feet altitude. The tuberous rhizome has been used for centuries in medicine and is still recognized as having medicinal value.

For previous introduction see 48743.

116885. SMILAX sp. Smilacaceae.

No. 560. A shrub 3 feet high with deep-blue fruits crowned with the reddish calyx. Found on an exposed slope at 2,030 feet altitude.

116886. SOLANUM DULCAMA L. Solanaceae. Bitter nightshade.

No. 523. A hairy herb with purplish-red flowers and red fruits, found in shade on a slope at 2,030 feet altitude.

For previous introduction see 116154.

116887. SORBUS sp. Malaceae.

No. 701. A shrub 5 feet high with edible orange fruits, found on a rocky slope at 1,875 feet altitude.

116888. SORBUS sp. Malaceae.

No. 697. A shrub 5 feet high with edible orange fruits; found on a rocky slope at 1,875 feet altitude.

116889. SYMLOCOS LAURINA (Retz.) Wall. Symplocaceae.

No. 472. A shrub 5 feet high with leathery leaves and white flowers; found on an exposed slope at 1,875 feet altitude.

116890. SYMLOCOS sp. Symplocaceae.

No. 687. A shrub 8 feet high with blackish fruits; found near a stream at 1,875 feet altitude.

116891. TAXUS CHINENSIS (Pilger) Rehder. Taxaceae.

No. 644. A tree 30 feet high with edible yellowish fruits, the aril becoming red; found on a slope at 1,875 feet altitude.

For previous introduction see 99228.

116892. VIBURNUM EROSUM Thunb. Caprifoliaceae.

No. 168. From Yang-Shan, Changning Hsien. An upright shrub to 6 feet high, with elliptic-ovate to oblong-obovate leaves about 4 inches long and small white flowers in terminal and lateral cymes up to 2 inches in diameter, followed by small red drupelike fruits; found on a brushy slope at 2,125 feet altitude.

116856 to 116896—Continued.

116893. VIBURNUM sp. Caprifoliaceae.

No. 570. A shrub 5 feet high with red fruits; found on an exposed slope at 1,875 feet altitude.

116894. VIBURNUM sp. Caprifoliaceae.

No. 451. A shrub 8 feet high with leaves tomentose beneath and reddish fruits; found on a brushy slope at 1,875 feet altitude.

116895. VIGNA VEXILLATA (L.) Rich. Fabaceae.

No. 460. A vine with trifoliate leaves of ovate-oblong pointed leaflets and usually two-flowered peduncles bearing light-purple flowers. Found on a grassy slope at 1,875 feet altitude.

For previous introduction see 89079.

116896. ZANTHOXYLUM ALATUM Roxb. Rutaceae. Prickly-ash.

No. 481. A shrub or small tree 7 feet high, native to the subtropical Himalayas, ascending to 6,000 feet. The compound leaves are made up of 5 to 11 lanceolate to ovate, finely serrate leaflets 1 to 5 inches long on a winged prickly rachis, and the yellow-green flowers in small panicles are followed by fragrant warty red fruits which open and show the lustrous black seeds. Collected in a forest at 1,875 feet altitude.

For previous introduction see 102787.

116897 to 116964.

From India and Afghanistan. Seeds and bulbs collected by Walter Koelz, Bureau of Plant Industry. Received June 26, 1936.

Unless otherwise stated, the material was collected at Kabul, Afghanistan, May 12 to 16, 1936, and was introduced as seeds. Collected at 6,000 feet altitude.

116897 to 116899. ALLIUM CEPA L. Liliaceae. Onion.

116897. No. 840. Bulblets from Panchinar, North West Frontier Province, May 8, 1936.

116898. No. 869. *Safed pujaz*. A flat white onion, 3 inches across.

116899. No. 860. *Surkh pujaz*. A handsome black-red onion, flattened, 3 inches in diameter.

116900. ALLIUM PORRUM L. Liliaceae. Leek.

No. 896. *Gandana*. Widely cultivated; the cut-off tops are sold in the market.

116901. WISTARIA sp. Fabaceae.

No. 912. From Baijnath, Kangra Valley, Punjab, May 22, 1936, at 3,000 feet altitude. A woody climber up to 20 feet, with pinnate leaves a foot long, and flat velvety pods 5 inches long.

116902. WOODFORDIA FRUTICOSA (L.) Kurz. Lythraceae.

No. 919. From Baijnath, Kangra Valley, Punjab, May 23, 1936.

For previous introduction and description see 116767.

116903. (Undetermined.)

No. 904. From Oot, Mandi State, India, May 30, 1936. A medium-sized, well-

116897 to 116964—Continued.

formed tree bearing flowers and later ripening fruit before the leaves appear. The red fruits are often in a radiate cluster of five on a stem. The huge leaves appear as the fruits ripen.

116904. (Undetermined.)

No. 922. From Drang, Mandi State, India, May 24, 1936. A well-formed shrub 6 feet high, with small pecanlike fruits 1 inch long, which, on ripening, split to expose the attractive red seeds; these are soon eaten by birds.

116905. (Undetermined.)

No. 926. From Oot, Mandi State, India, May 30, 1936. A vigorous attractive vine bearing dense clusters of purple and white flowers before the leaves appear. The pods are covered with bristly deciduous hairs.

116906. BETA VULGARIS L. Chenopodiaceae. Common beet.

No. 897. *Lablabu*. A red beet, said to be native.

116907. BRASSICA OLERACEA CAPITATA L. Brassicaceae. Cabbage.

No. 873. *Karam*. A large flat green cabbage 1 foot across. Said to be indigenous.

116908. BRASSICA RAPA L. Brassicaceae. Turnip.

No. 859. *Surkh shetgam*. A sweet turnip.

116909. CAPSICUM ANNUM L. Solanaceae. Common redpepper.

No. 889. *Miris*. A mild red bullnosed pepper, 3 by 1½ inches.

116910 to 116914. CITRULLUS VULGARIS Schrad. Cucurbitaceae. Watermelon.

Tarbutz. These are said to represent the types of melons grown at Kabul; most of them are of great size. The quality is said to be better than the melons grown in Peshawar, India.

116910. No. 872.

116911. No. 876.

116912. No. 877.

116913. No. 878.

116914. No. 879.

116915 to 116919. CUCUMIS spp. Cucurbitaceae.

116915 to 116917. CUCUMIS MELO L. Muskmelon.

116915. No. 851. *Safed sarda*. A large white melon of excellent quality.

116916. No. 854. *Garma*. A large melon of excellent quality.

116917. No. 855. *Kharbuza sarda*. A large greenish melon of excellent quality.

116918. CUCUMIS MELO FLEXUOSUS (L.) Naud.

No. 852. *Taran*. An elongate, ridged, crook-necked melon. Native to the East Indies.

116919. CUCUMIS SATIVUS L. Cucumber.

No. 853. *Badrang*. A very good smooth cucumber, 6 by 3½ inches, with soft seeds.

116897 to 116964—Continued.

116920 to 116923. CUCURBITA spp. Cucurbitaceae.

116920. CUCURBITA MAXIMA Duchesne. Squash.

No. 893. *Turkestan ka ddu*. Fruit ellipsoid, 16 inches long, salmon colored with faint ribs 5 inches apart; flesh rather thick, salmon colored, insipid.

116921. CUCURBITA MOSCHATA Duchesne. Cuslaw.

No. 866. *Kaddu-i-Turkistan*. Fruit globose, salmon to red, up to 90 pounds in weight; flesh sweet. Said to have been introduced from Turkey.

116922 and 116923. CUCURBITA PEPO L. Pumpkin.

116922. No. 831. From Parachinar, Kurram Agency, North West Frontier Province, May 8, 1936. Gift from the Government Gardens; said to represent the locally grown cucurbita.

116923. No. 858. *Kadu-i-Kabul*. A small green globose pumpkin.

116924. CUPRESSUS FUNERIS Endl. Pinaceae. Mourning cypress.

No. 850. From Jalalabad, Afghanistan, May 11, 1936. An ornamental shrub 20 feet high, with drooping branches.

For previous introduction see 99158.

116925. CUPRESSUS sp.

No. 849. *Sabr*. From Mimbla, Afghanistan, May 11, 1936. Very old trees, 50 to 60 feet high, some over 15 feet in circumference. Said to have been planted by the Great Mogul, Babur, in the sixteenth century.

116926. DAUCUS CAROTA L. Apiaceae. Carrot.

No. 856. *Sujahi zardak*. An insipid purple-black carrot, probably imported from a warmer region.

116927. DAUCUS CAROTA L. Apiaceae. Carrot.

No. 867. *Surkh zardak*. A red carrot.

116928. ELAEAGNUS sp. Elaeagnaceae.

No. 880. *Singjhet*. Fruit small, mealy, rather acid, sold dried. Probably from Jalalabad.

116929 and 116930. IRIS spp. Iridaceae.

From Parachinar, Kurram Agency, North West Frontier Province, India, May 8, 1936. A dainty and attractive iris with blue-purple flowers. Grows on dry plains or in fields.

116929. No. 836-A. Bulbs.

116930. No. 836-B. Seeds.

116931 and 116932. JUGLANS REGIA L. Juglandaceae. Persian walnut.

Girdu. Trees withstand zero temperatures without injury. The nuts are of good flavor, but the shell is hard.

116931. No. 863. 116932. No. 864.

116933. LACTUCA SATIVA L. Cichoriaceae. Garden lettuce.

No. 862. *Ka-u*. A head lettuce said to be indigenous. The leaves are tender, but the head is not firm.

116897 to 116964—Continued.

116934 and 116935. *LAGENARIA LEUCANTHA* (Duchesne) Rusby. Cucurbitaceae.
Calabash gourd.

Small gourds are used as containers for small dry objects and liquids.

116934. No. 857. *Kadusrat*.

116935. No. 894. *Kadu nasair*.

116936. *LUFFA ACUTANGULA* (L.) Roxb. Cucurbitaceae. Singkwa towelgourd.

No. 861. *Turi*. Probably like the Indian races. Used as a vegetable.

116937. *LYCOPERSICON ESCULENTUM* Mill. Solanaceae. Tomato.

No. 875. *Banjan rawi*.

116938. *MEDICAGO SATIVA* L. Fabaceae. Alfalfa.

No. 882. *Rishka*. One of the common fodder plants of this region.

116939. *MOMORDICA CHARANTIA* L. Cucurbitaceae. Balsam-pear.

No. 868. *Karela*.

116940. *MORUS ALBA* L. Moraceae. White mulberry.

No. 817. *Shahbut*. From Peshawar, North West Frontier Province, India, May 5, 1936. Fruit whitish, 1½ inches long by one-fourth of an inch in diameter, sweet and with an odor of peaches.

116941. *MORUS* sp. Moraceae.

No. 818. From Peshawar, North West Frontier Province, May 5, 1936. Sold in the bazar dried; said to have come from Afghanistan. The dried fruits are sweet and are a good substitute for raisins.

116942. *NARCISSUS* sp. Amaryllidaceae.

No. 846. From Peshawar, North West Frontier Province, May 9, 1936. Bulbs presented by the Government Gardens.

116943. *PAPAVER* sp. Papaveraceae.

No. 838. From Parachinar, Kurram Agency, North West Frontier Province, India. An herb 18 inches high with attractive red flowers; found in fields and on dry plains.

116944. *PISUM SATIVUM* L. Fabaceae. Pea.

No. 847. *Mashang*.

116945 and 116946. *PRUNUS ARMENIACA* L. Amygdalaceae. Apricot.

116945. No. 883. *Zardalu*. A large-beaked apricot, very sweet when dried, usually halved for drying. Withstands zero temperature without injury.

116946. No. 884. *Shakkarpara*. This is a commonly exported apricot, found in all the Indian cities. It is very sweet when dried, and the kernel is edible.

116947 to 116949. *PRUNUS* spp. Amygdalaceae.

116947. *PRUNUS CERASIFERA* Ehrh. Myrobalan plum.

No. 891. A small attractive tree; fruits small, rather sour when dried.

116897 to 116964—Continued.

116948. *PRUNUS CERASUS* L. Sour cherry.

No. 885. *Alubalu*. A small tree covered with large attractive white flowers in spring; fruits dark red, acid when fresh. Sold in the market dried.

For previous introduction see 115000.

116949. *PRUNUS DOMESTICA* L. Common plum.

No. 886. A very sweet plum said to have come from Ghazni. The dried fruit is rather acid.

116950 and 116951. *RAPHANUS SATIVUS* L. Brassicaceae. Radish.

116950. No. 870. *Muli-i-Kabul*. A long white-rooted radish. In the spring the leaves are used as greens.

116951. No. 892. *Herati Muli*. A top-shaped radish with the upper part red-purple.

116952. *SALVIA* sp. Menthaceae.

No. 841. From Parachinar, North West Frontier Province, India, May 8, 1936. An attractive annual that grows on dry slopes and plains. Leaves large, tomentose; flowers pale, blue-purple.

116953 and 116954. *SOLANUM MELONGENA* L. Solanaceae. Eggplant.

116953. No. 874. *Banjan siyahi*. A long black fruit which is alkali tolerant.

116954. No. 895. *Badanjan*. A round red eggplant.

116955. *SPINACIA OLERACEA* L. Chenopodiaceae. Common spinach.

No. 865. *Patag*. A very thrifty broad-leaved spinach.

116956. *SYRINGA* sp. Oleaceae.

No. 890. An attractive plant with slender panicles of rose-purple, very fragrant flowers; grown for hedges.

116957. *TRIFOLIUM* sp. Fabaceae.

No. 881. *Shafbal*. An annual or biennial clover that yields several cuttings a year. The flowers are small, pink, and very fragrant.

116958. *TULIPA* sp. Liliaceae.

No. 839. From Parachinar, North West Frontier Province, India, May 8, 1936. Found on dry slopes and open fields. Bulbs are sold in the bazar, roasted.

116959. *VICIA FABA* L. Fabaceae. Broadbean.

No. 848. *Bakle*. Said to be ground with wheat for bread.

116960 to 116962. *VITIS VINIFERA* L. Vitaceae. European grape.

116960. No. 887. *Munaka*. The famous table raisin throughout the Near East and India.

116961. No. 888. *Abjosh*. Said to have come from Kanduhar. Fruits white, large, of honey sweetness when dried.

116897 to 116964—Continued.

116962. No. 903. "Seedless" raisins said to grow where the winter temperatures are zero. They have been seen as flourishing grapevines with trunks a foot in diameter. The raisins are of fine flavor and high sugar content.

116963. (Undetermined.)

No. 837. From Parachinar, Kurram Agency, North West Frontier Province. Bulbs having blue-purple flowers.

116964. (Undetermined.)

No. 837-B. From Parachinar, Kurram Agency, North West Frontier Province. Seeds of No. 837 [P. I. 116963].

116965. *PHYLLOSTACHYS FLEXUOSA* A and C. Rivière. Poaceae. Bamboo.

Plants growing at the Barbour Lathrop Plant Introduction Garden, Savannah, Ga. Numbered in June 1936.

A bamboo about 10 feet high with two or three leaves on a branchlet. The leaves are 2 to 4 inches long by about one-half inch wide. The culm sheaths are a dull green, often suffused with dull brown, and spotted with deeper brown.

These plants have been carried under P. I. No. 38912, but this bamboo is not the species there listed. The original source of the plants is uncertain.

See also P. I. No. 89715.

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