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UNITED STATES DEPARTMENT OF AGRICULTURE



INVENTORY No. 112



Washington, D. C.

Issued September 1934

PLANT MATERIAL INTRODUCED BY THE DIVISION OF FOREIGN PLANT INTRODUCTION, BUREAU OF PLANT INDUSTRY, JULY 1 TO SEPTEMBER 30, 1932 (Nos. 100468-101157)

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INTRODUCTORY STATEMENT

Inventory no. 112 lists the introductions (nos. 100468-101157) received by the Division of Foreign Plant Introduction during the period from July 1 to September 30, 1932. It records the further kindness of Maj. Lionel de Rothschild and the Honorable Henry MacLaren in presenting additional seeds from the sixth Forrest expedition to southwestern China.

Nos. 100724-100798, *Solanum tuberosum*, collected by C. O. Erlanson and H. G. MacMillan, represent the last collection from that expedition to South America, together with various miscellaneous collections (100688-100709, 100713-100718, 100833-100837) gathered in the same territory.

The principal collections represent very large special collections made for Department specialists, as, for example, two sugar collections, one from Charles H. Thrall, Habana, Cuba (101115-101130), and one from the experiment station of the Hawaiian Sugar Planters' Association, Hawaii (101028-101057); forage plants, chiefly grasses, from New Zealand (100660-100676), and from Wales (100678-100681); a collection of cinchona, Guatemalan cuttings, from Colonel Ruehl (100799-100832); and seeds purchased from the Hindustan Nursery Co., Calcutta, India (100986-100988), and the Chandra Nursery, Rhenock, Sikkim State, Bengal (101064).

The botanical determinations of these introductions have been made and the nomenclature determined by the late H. C. Skeels,<sup>1</sup> who had general supervision of this inventory.

KNOWLES A. RYERSON,  
Principal Horticulturist, in Charge.

DIVISION OF FOREIGN PLANT INTRODUCTION,  
Washington, D.C., November 15, 1933.

<sup>1</sup> Died Jan. 3, 1934.



## INVENTORY

### 100468 and 100469.

From Palestine. Cuttings presented by A. Kharanoff, Jewish Colonization Society, Haifa. Received July 2, 1932.

100468. *CERATONIA SILIQUA* L. Caesalpiniaceae.  
Carob.

100469. *FICUS STYCOMORUS* L. Moraceae.  
Sycamore fig.

### 100470 to 100475. *FRAGARIA* spp. Rosaceae. Strawberry.

From Australia. Plants presented by Herbert J. Rumsey & Sons, Ltd., Dundas, New South Wales. Received June 29, 1932. Numbered in July 1932.

A collection of Australian strawberries, introduced for the use of Department specialists.

100470. *FRAGARIA* sp.

*Captain Cook.*

100471. *FRAGARIA* sp.

*Creswell's Seedling.* A variety which forms few runners.

100472. *FRAGARIA* sp.

*Illawarra.*

100473. *FRAGARIA* sp.

*Port Macquarie.*

100474. *FRAGARIA* sp.

*Phenomenal.*

100475. *FRAGARIA* sp.

*Rhodes Spécial.* A very early variety.

### 100476 to 100478. *CAPSICUM ANNUUM* L. Solanaceae. Common redpepper.

From Spain. Seeds from the Murcia district, presented through Señor Miquel de Echegary, agricultural attaché, Spanish Embassy, Washington, D.C. Received June 22, 1932. Numbered in July 1932.

A collection of the best commercial varieties of redpeppers grown in the Murcia district of Spain.

100476. *Pimiento del pico.*

100477. *Pimiento gordo.*

100478. *Pimiento morrón.*

### 100479. *LOLIUM PERENNE* L. Poaceae. Perennial ryegrass.

From Manchuria. Seeds presented by L. Pitain. Received June 27, 1932. Numbered in July 1932.

Collected near Harbin in March 1932 and introduced for the use of Department specialists.

### 100480. *ARGANIA SPINOSA* (L.) Skeels (*A. sideroxylon* Roem. and Schult.). Sapotaceae. Argan.

From Morocco. Seeds presented by H. Brayard, Ingénieur Horticole, Directeur de la Ferme Expérimentale, Marrakech. Received June 24, 1932. Numbered in July 1932.

The Argan tree of western Morocco is endemic to that part of the African Continent. It grows to a large size and bears an abundance of very acid fruits, somewhat resembling small plums, that are eaten by cattle and goats. The seeds are very thick-walled and contain an oil which is used by the natives as a food and also for illuminating purposes.

For previous introduction see 91650.

### 100481. *IPOMOEA BATATAS* (L.) Poir. Convolvulaceae. Sweetpotato.

From Peru. Tubers collected by H. G. MacMillan and C. O. Erlanson, Bureau of Plant Industry. Received June 28, 1932. Numbered in July 1932.

No. 317. Collected May 17, 1932, in the region of Cuzco at 11,000 feet altitude. Large, elongated, red tubers with white flesh mottled with purple and purple centers.

### 100482 to 100486.

From China. Seeds collected by the sixth Forrest expedition, 1930-32, to southwestern China and presented by Maj. Lionel de Rothschild, London, England. Received July 1, 1932.

100482. *ANAPHALIS CUNEIFOLIA* Hook. f. Asteraceae.

No. 30519. A perennial alpine herb 6 to 12 inches high, native to Sikkim, India. The slender ascending stems are soft woolly; the linear-oblong to spatulate leaves are 1 to 2 inches long, and the small woolly flower heads are borne in corymbose clusters.

100483 to 100485. *ASTER* spp. Asteraceae.

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 Foreign Plant Introduction, and, further, that the printing of such names here does not constitute their official publication and adoption to 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 identification, 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.

## 100482 to 100496—Continued.

100483. *ASTER FUSCESCENS* Bur. and Franch.

No. 30444. A stout rigid perennial about a foot high, with ascending stems and broadly ovate or roundish leaves about 2 inches long, the lowermost with long petioles, and flower heads half an inch across in rather dense corymbs. Native to Szechwan, China.

100484. *ASTER* sp.

No. 30443.

100485. *ASTER* sp.

No. 30524.

100486. *DORONICUM YUNNANENSE* Hort. Asteraceae.

No. 30434. A name for which a place of publication and a description have not been found.

100487. *ERIGERON MULTIRADIATUS* (Lindl.) C. B. Clarke. Asteraceae. Himalayan fleabane.

No. 30517. A beautiful alpine composite native to wet grassy places the whole length of the Himalayan range from 7,000 to 12,000 feet altitude. It is a pubescent or hirsute herb up to 10 inches high, with simple scapellike leafy stems and numerous radical leaves. The oblanceolate leaves, narrowed into a rather long petiole, are 4 to 8 inches long.

For previous introduction see 100190.

100488. *HEDYSARUM* sp. Fabaceae.

No. 30525.

100489. *MEGACARPAEA DELAVAYI* Franch. Brassicaceae.

No. 30514. An alpine perennial with a thick rhizome and an erect stem 1 to 2 feet high. The pinnatifid leaves are up to 6 inches long, and the small violet or purplish flowers are in dense corymbs. Native to southwestern China.

For previous introduction see 100205.

100490. *NARDOSTACHYS JATAMANSI* (W. M. Jones) DC. (*N. grandiflora* DC.). Valerianaceae.

No. 30435. A low perennial herb 1 to 2 feet high, native to the alpine Himalayas in Sikkim, India. The lanceolate-spatulate radical leaves are 6 to 8 inches long, and the tubular campanulate rosy flowers, one-fourth inch long, are in small heads which are gathered into cymes.

100491. *PEGAEOPHYTON SINENSE* (Hemsl.) Hayek and Hand.-Mazz. Brassicaceae.

No. 30428. A stemless plant, possibly a biennial, 2 to 3 inches high, with a rather dense rosette of very narrow leaves and small flowers, half an inch across, borne singly on short peduncles. Native to western China.

100492. *SALVIA EVANSIANA* Hort. Menthaceae. Sage.

No. 30433. A name for which a place of publication and a description have not been found.

100493. *SAXIFRAGA* sp. Saxifragaceae. Saxifrage.

No. 30441. A species which somewhat resembles *S. rufescens*.

100494 to 100496. *SENECIO* spp. Asteraceae.10494. *SENECIO STENOGLOSSUS* Franch.

No. 30431. A perennial herb with very slender hairy stems, 1 to 2 feet high, and reniform or cordate leaves about 5 inches long. The brownish flower heads are in corymbose racemes. Native to Yunnan.

100495. *SENECIO* sp.

No. 30430.

100496. *SENECIO* sp.

No. 30455.

## 100497 to 100499.

From Australia. Seeds presented by R. Allsop manager, Queensland Acclimatisation Society. Received June 30, 1932. Numbered in July 1932.

100497. *CARICA PAPAYA* L. Papayaceae.

Papaya.

*Dong Tom* (2 A.S. strain).

100498. *CARICA PAPAYA* L. Papayaceae.

Papaya.

*New Era* (2 D.S. strain).

100499. *PASSIFLORA QUADRANGULARIS* L. Passifloraceae. Giant granadilla.

Long type (2 D.S. strain).

## 100500 to 100618.

From China. Seeds collected by the sixth Forrest expedition, 1930-32, to southwestern China and presented by Maj. Lionel de Rothschild, London, England. Received July 2, 1932.

100500. *ABIES CHENSISIENSIS* Van Tiegh. Pinaceae. Fir.

No. 30663. A tree up to 120 feet high, native to central China. The horizontally spreading, two-ranked leaves, about 1 inch long, are shining dark-green above, with two gray-green bands beneath. The cinnamon-brown, ovoid-oblong cones are 3 to 5 inches long.

100501. *ABIES DELAVAYI* Franch. Pinaceae. Fir.

No. 30975. A tall tree, often 100 feet high, native to western China. The slightly grooved branchlets are lustrous red brown, and the emarginate linear leaves, about 1 inch long, are revolute on the margin, dark green above and with two white bands beneath. The violet-black, cylindrical to ovoid cones are 2 to 4 inches long, and the scales are nearly 1 inch wide.

For previous introduction see 98365.

100502 to 100508. *ACER* spp. Aceraceae. Maple.100502. *ACER CAMPBELLII* Hook. f. and Thoms.

No. 29743. Variety *yunnanense* of one of the principal maples of the northeastern Himalayas, where it grows at altitudes over 7,000 feet. The beautiful green leaves with their red stalks make this tree decidedly ornamental. The light-gray, moderately hard wood is used for planking and for cabinetwork.

100503. *ACER DAVIDI* Franch.

No. 29881. A native Chinese maple, 50 to 60 feet high, with large, oval, heart-shaped, coarsely toothed leaves and long pendent clusters of samaras.

For previous introduction see 97498.

100504. *ACER LAXIFLORUM* Pax. (*A. forrestii* Diels).

No. 30726. A tree up to 50 feet high, with cordate-oblong leaves 4 inches long, having 2 to 4 short lobes near the base and serrate margins. The yellowish flowers are borne in slender pendulous racemes and are followed by fruits with the wings spreading at right angles. It is native to western China.

For previous introduction see 98826.

100505. *ACER* sp.

G. F. 96.

100506. *ACER* sp.

G. F. 462.

100507. *ACER* sp.

No. 29592. Closely related to *A. laetigatum*.

100508. *ACER* sp.

No. 30721. Closely related to *A. patii*.

100500 to 100618—Continued.

100500 to 100511. *AMYGDALUS* spp. Amygdalaceae.

100509. *AMYGDALUS KANSUENSIS* (Rehder) Skeels.

G. F. 85-a. A thorny shrub, 6 to 10 feet high, with black stems and pink flowers which appear before the leaves. The small fruits, the size of a marble or larger, contain no flesh. This species occurs on dry arid loess slopes and endures temperatures of  $-4^{\circ}$  to  $-20^{\circ}$  F. It is an early flowering shrub, blooming at an altitude of 8,500 to 9,000 feet when the country is still covered with snow and the streams are frozen.

100510. *AMYGDALUS PERSICA* L. Peach.

G. F. 85.

100511. *AMYGDALUS* sp.

G. F. 316.

100512. *BERBERIS* sp. Berberidaceae. Barberry.

G. F. 75. Closely related to *B. yunnanensis*.

100513. *BERBERIS* sp. Berberidaceae. Barberry.

F. 30717.

100514. *BETULA* sp. Betulaceae. Birch.

F. 29410.

100515. *BETULA* sp. Betulaceae. Birch.

F. 30831.

100516. *BUDDLEIA FALLOWIANA* Balf. and Smith. Loganiaceae.

F. 30932. A graceful shrubby plant with silvery woolly foliage and small, white, fragrant flowers, with orange centers, in dense cylindrical spikes.

100517. *CARAGANA* sp. Fabaceae.

G. F. 95. Flowers yellow.

100518. *CARPINUS* sp. Betulaceae. Hornbeam.

F. 29607.

100519. *CARPINUS* sp. Betulaceae. Hornbeam.

G. F. 74.

100520. *CATALPA DUCLOUXII* Dode. Bignoniaceae.

G. F. 324. A small tree, native to central and western China, with ovate-cordate leaves 4 to 8 inches long. The rose-pink flowers, more than an inch long, are borne in corymbose clusters.

100521. *CEPHALOTAXUS FORTUNEI* Hook. Taxaceae. Chinese plum-yew.

G. F. 88. A small tree up to 30 feet high, native to central China. The linear leaves, 2 to 3 inches long, spread nearly horizontally and are glossy green above with two pale bands beneath, and the ovoid purple fruits are 1 inch long.

100522 to 100525. *CLEMATIS* spp. Ranunculaceae.

100522 and 100523. *CLEMATIS MONTANA* Buch-Ham. Anemone clematis.

An ornamental vigorous climber, 30 feet or more in length, with solitary, pure-white flowers. It is native to the Himalayas.

100522. F. 30725. A variety with large flowers.

100523. F. 30805. A variety with small flowers.

100524. *CLEMATIS RANUNCULOIDES* Franch.

G. F. 91. A clematis from southwestern China, with a short thick woody rhizome and an erect simple flowering stem 1 to 2 feet high. The prominently nerved leathery leaves are trifid or trilobed and from 1 to 2 inches long, and the 1 to 3 nodding flowers are rose colored. The plant strongly suggests a ranunculus.

100500 to 100618—Continued.

100525. *CLEMATIS* sp.

F. 30743.

100526 to 100528. *CLETHRA* spp. Clethraceae.

100526 and 100527. *CLETHRA DELAVAYI* Franch.

A Chinese shrub or small tree up to 50 feet high, with red branchlets and oblanceolate leaves which are pubescent beneath. The fragrant white flowers differ from those of the sweet pepperbush, *Clethra alnifolia*, in having red calyxes and in being in solitary racemes, while the sweet pepperbush has the racemes grouped together to form a panicle.

100526. F. 30956. The typical form.

100527. F. 30974.

100528. *CLETHRA* sp.

F. 29866.

100529. *CORYLOPSIS* sp. Hamamelidaceae.

F. 30963.

100530 to 100533. *COTONEASTER* spp. Malaceae.

100530. *COTONEASTER* sp.

F. 30553. Closely related to *C. acuminata*.

100531. *COTONEASTER* sp.

F. 30598.

100532. *COTONEASTER* sp.

G. F. 77. Closely related to *C. pannoa*.

100533. *COTONEASTER* sp.

G. F. 94. Closely related to *C. pannoa*.

100534. *CRATAEGUS HENRYI* Dunn. Malaceae. Hawthorn.

F. 30713. A handsome hawthorn from southwestern China, 10 to 20 feet high, with unarmed branches, leathery toothed but not lobed ovate leaves 1 to 3 inches long. The white flowers are followed by globose red fruits half an inch in diameter.

100535 to 100537. *DAPHNIPHYLLUM* spp. Euphorbiaceae.

100535. *DAPHNIPHYLLUM* sp.

F. 30409.

100536. *DAPHNIPHYLLUM* sp.

G. F. 90. Closely related to *D. beddomei*.

100537. *DAPHNIPHYLLUM* sp.

G. F. 332.

100538. *DECAISNEA FARGESII* Franch. Lardizabalaceae.

F. 30466. 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 fruits 3 to 4 inches long. Native to western China.

For previous introduction see 99180.

100539. *DIAPENSIA PURPUREA* Diels. Diapensiaceae.

F. 30806. Forma *rosea*, a pink-flowered form of this low caespitose bushy evergreen shrub with leathery glabrous oblong-spatulate leaves less than an inch long. Native to western China.

For previous introduction see 99857.

100540. *DICHOTOMANTHES TRISTANIAECARPA* Kurz. Amygdalaceae.

F. 30966. A shrubby plant with oblong-ovate strongly serrate mucronate leaves an inch long, smooth above and woolly beneath, and flowers in terminal cymes. Native to southwestern China.

## 100500 to 100618—Continued.

100541. ENKIANTHUS DEFLEXUS (Griffith) C. Schneid. Ericaceae.

F. 29710. The whorled branches of this Himalayan shrub are characteristic of the entire genus and give the plant a peculiar appearance. The branchlets are red, and the margins and petioles of the obovate leaves, 1 to 3 inches long, are red when the leaves are young. The flowers, produced in dense drooping racemes, have yellow corollas, striped dark red, with darker lobes.

For previous introduction see 99862.

100542. ENKIANTHUS sp. Ericaceae.

G. F. 300.

100543. EPILOBIUM sp. Onagraceae.

G. F. 346.

0644. EUONYMUS sp. Celastraceae.

G. F. 42.

00545. EUONYMUS sp. Celastraceae.

G. F. 337.

100546. VIBURNUM sp. Caprifoliaceae.

F. 29497.

100547. EUONYMUS sp. Celastraceae.

F. 30716. Closely related to *E. cresbia*.

100548. EUPTLEA PLEIOSPERMA Hook. f. and Thoms. Trochodendraceae.

G. F. 73. A tree 30 to 40 feet high, native to Tibet, with ovate-crenate leaves which are glaucous beneath and have very long acuminate tips. The slender-stalked red flowers, in axillary fascicles, appear before the leaves.

For previous introduction see 99864.

100549. FRAXINUS sp. Oleaceae. Ash.

F. 30563.

100550 to 100559. GAULTHERIA spp. Ericaceae.

100550 and 100551. GAULTHERIA TRICHOPHYLLA Royle.

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 covered with small leaves, 12 or more to the inch. 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.

100550. F. 30556.

100551. F. 30679.

100552. GAULTHERIA sp.

F. 29803.

100553 to 100555. GORDONIA spp. Theaceae.

Closely related to *G. chrysantra*.

100553. G. F. 98.

100554. G. F. 103.

100555. F. 30964.

100556 to 100558. HYDRANGEA spp. Hydrangeaceae.

100556 and 100557. HYDRANGEA YUNNANENSIS Rehder.

A shrub about 3 feet high, with membranous oblong or oblong-lanceolate dentate light-green leaves 3 to 5 inches long. The white sterile flowers are over an inch across, and the blue fertile flowers are in nearly flat cymes. It is

## 100500 to 100618—Continued.

closely related to *H. davidii* and is native to Yunnan.

100556. F. 29755.

100557. F. 29842.

100558. HYDRANGEA sp.

F. 29624.

100559. HYPERICUM PATULUM HENRYI Veitch. Hypericaceae. Henry hypericum.

F. 30989. This variety is harder than the typical form and sturdier in habit. The ovate dark-green leaves are 2 to 3 inches long, and the rich yellow flowers are about 2 inches wide. Native to Yunnan.

100560. HYPERICUM sp. Hypericaceae.

F. 29674. Closely related to *H. hookeri*.

100561. ILEX MICROCOCCA Maxim. Aquifoliaceae. Holly.

F. 29908. A holly with oblong papery leaves 3 to 4 inches long and very small red berries one sixth inch in length. Native to Japan and China.

100562. ILEX sp. Aquifoliaceae. Holly.

F. 30561. Closely related to *I. corallina*.

100563. ILLICIUM sp. Magnoliaceae.

G. F. 76. Closely related to *I. yunnanensis*.

100564 to 100570. JUNIPERUS spp. Pinaceae. Juniper.

100564. JUNIPERUS RECURVA Buch.-Ham. Himalayan juniper.

F. 29591. A prostrate or erect shrub, or sometimes an erect tree up to 30 feet high, native to the temperate and alpine slopes of the Himalayas in India. The fastigiate branches are decurved and then ascending with pendulous branchlets.

For previous introduction see 99736.

100565. JUNIPERUS SCUMATA Buch.-Ham.

F. 30847. A decumbent shrub, native to the eastern Himalayas and western China. The thick branchlets are ascending at the tip and bear crowded blue-green leaves with two gray-white bands above. The globose-ovoid, blue-black fruits are one-fourth to one-third inch across.

100566 and 100567. JUNIPERUS SCUMATA FAR-  
GESH Rehd. and Wils.

A tree up to 70 feet high with longer, narrower, and more spreading leaves than the usual shrub form, F. 30847 (No. 100565), and the fruits are ovoid. It is native to the China-Tibet border.

100566. F. 30560.

100567. F. 30972.

100568. JUNIPERUS SCUMATA WILSONII Rehder.

F. 30918. An upright shrub up to 6 feet high, native to western China. The short branchlets are recurved at the tip, and the broadly lanceolate leaves, about one sixth inch long, are broader, shorter, and more crowded than those of the usual form.

100569 and 100570. JUNIPERUS WALLICHIANA Hook. f.

Varying from a shrub up to a tree 60 feet high, this juniper is native to the eastern Himalayas and western China. The slender branchlets bear bright-green scalelike leaves, and the blue-black ovoid erect fruits are nearly one half inch long.

100569. F. 30554.

100570. F. 30855.

100500 to 100618—Continued.

100571. *KETELEERIA DAVIDIANA* (Retrand)  
Betsan. Pinaceae.

F. 30061. A coniferous tree, native to western China, which is closely allied to the fir. If sometimes becomes 100 feet tall, is of pyramidal habit, and has handsome glossy green firlike foliage. The tree is said to be somewhat tender to frost and therefore probably adapted for growing only in the southern half of the United States.

100572. *LEPTODERMIS* sp. Rubiaceae.

F. 29657.

100573. *LESPEDEZA FORMOSA* (Vogel) Koehne.  
Fabaceae. Purple bushclover.

F. 30580. An erect semishrubby plant 6 to 12 feet high, with trifoliate leaves of oblong leaflets and racemes of rose-purple flowers. It is native to Chosen.

For previous introduction see 94006.

100574. *LIGUSTRUM IONANDRUM* Diels. Oleaceae.  
Privet.

G. F. 321. A compact shrub 10 to 12 feet high, found among limestone boulders at 10,000 feet altitude in southwestern China. It has elliptical leaves and short terminal clusters of fragrant cream-colored flowers.

100575 to 100577. *PAEONIA* spp. Ranunculaceae.  
Peony.

100575 and 100576. *PAEONIA DELAVAYI* Franch.

A very attractive vigorous shrub 4 feet high, growing on steep slopes among limestone boulders and in alpine meadows between 10,000 and 13,000 feet altitude. The deep-crimson flowers are 3 inches in diameter. Native to southwestern China.

100575. G. F. 81.

100576. G. F. 322.

100577. *PAEONIA LUTEA* Delavay.  
Golden peony.

F. 30848. A shrubby Chinese peony with a short woody stem 1 or 2 feet high and deep-green, leathery, three-parted leaves, white beneath, and about a foot in length. The golden-yellow single or slightly double flowers are over 2 inches across.

100578. *PARASYINGA SEMPERVIRENS* (Franch.)  
W. W. Smith. Oleaceae.

F. 30859. An evergreen rather privetlike shrub, up to 9 feet high, found in mountainous regions of Yunnan, up to 12,000 feet altitude. The foliage is leathery, the fragrant flowers are light creamy yellow, and the berries are black.

100579 to 100581. *PHILADELPHUS DELAVAYI* L.  
Henry. Hydrangeaceae. Mockorange.

A shrub 15 to 20 feet high, native to Yunnan. The remotely serrate ovate leaves, 2 to 4 inches long, are dark green above and tomentose beneath. The very fragrant flowers, nearly 2 inches across, have a violet-purple calyx and white petals slightly tinged with purple on the outside, and are borne in racemes.

For previous introduction see 99065.

100579. G. F. 343.

100580. F. 30377.

100581. F. 30723.

100582. *PROBEA* sp. Lauraceae.

F. 30729.

100583. *PROTINIA* sp. Malaceae.

F. 29760.

100500 to 100618—Continued.

100584. *PICEA LIKIANGENSIS* (Franch.) E. Pritz.  
Pinaceae. Spruce.

G. F. 104. A tree up to 80 feet high, native to western China. The light yellow-gray branchlets are sparingly hairy, the quadrangular, slightly compressed leaves, one half inch long, are white above, and the cones, about 2 inches long, have rhombic-ovate, erose, flexible scales.

100585. *PIERIS* sp. Ericaceae.

G. F. 72.

100586. *PINUS YUNNANENSIS* Franch. Pinaceae.  
Yunnan pine.

G. F. 86. A large forest tree, native to Yunnan. The long slender, drooping leaves are up to 10 inches long, and the cones, 2 to 4 inches long, have flat scales.

For previous introduction see 93878.

100587. *PIPTANTHUS* sp. Fabaceae.

G. F. 99.

100588. *PITTIOSPORUM* sp. Pittosporaceae.

F. 30720.

100589. *POTENTILLA FRUTICOSA VEITCHII* (Wilson)  
Bean. Rosaceae. Veitch cinquefoil.

F. 30767. A very fine form from Hupsh, with silky, hairy, gray-green leaves and white flowers.

For previous introduction see 99970.

100590. *PRUNUS* sp. Amygdalaceae.

F. 30705. A plum.

100591. *PRUNUS* sp. Amygdalaceae.

F. 30706. A plum.

100592. *PTEROLOBIUM* sp. Caesalpinaceae.

F. 29972.

100593. *RHODOLEIA* sp. Hamamelidaceae.

G. F. 102. Closely related to *R. championii*.

100594 to 100600. *ROSA* spp. Rosaceae. Rose.

100594. *ROSA LONGICUSPIS* Bertol.

F. 30988. A rambling bush about 20 feet high, native to western China, with sparse short prickles, large, dark-green leaves, and white flowers 2 inches wide, in very large lax corymbs.

100595. *ROSA PRAELUCENS* Hort.

G. F. 79. A name for which a place of publication and a description have not been found.

100596. *ROSA* sp.

G. F. 92. Closely related to *R. moyesii*.

100597. *ROSA* sp.

G. F. 93. Flowers white.

100598. *ROSA* sp.

F. 97.

100599. *ROSA* sp.

F. 30549. Closely related to *R. sericea*.

100600. *ROSA* sp.

F. 30993. Closely related to *R. moyesii*.

100601 to 100603. *SORBUS* spp. Malaceae.  
Mountain-ash.

100601. *SORBUS HARROWIANA* (Balf. and Smith)  
Rehder.

F. 29775. A tree up to 40 feet high, native to China, with compound leaves made up of 3 to 9 oblong serrulate coriaceous leaflets 8 inches

100500 to 100618--Continued

long. The small white flowers, in compound terminal corymbs 6 to 8 inches across, are followed by ovoid fruits a quarter of an inch in diameter.

For previous introduction see 93951.

100602. *SORBUS* sp.

F. 30970.

100603. *SORBUS* sp.

F. 30991.

100604 to 100606. *SPIRAEA* spp. Rosaceae  
Spiraea.

100604. *SPIRAEA* sp.

G. F. 80. Closely related to *S. canescens glaucophylla*.

100605. *SPIRAEA* sp.

F. 30863. Closely related to *S. sinobrabaii*.

100606. *SPIRAEA* sp.

F. 31001. Closely related to *S. arcuta*.

100607. *STACHYURUS HIMALAICUS* Hook. f. and Thoms. Stachyuraceae.

F. 29930. A small tree native to the eastern temperate slopes of the Himalayas in India. The ovate membranous leaves, 6 inches long, have serrate margins, and the small flowers in erect spikes, 2 to 3 inches long, are followed by fleshy berries the size of a small pea.

For previous introduction see 100364.

100608. *SYRINGA* sp. Oleaceae. Lilac.

F. 30898. Closely related to *S. yunnanensis*.

100609. *TILIA CHINENSIS* Maxim. Tiliaceae. Linden.

F. 30558. A Chinese linden with long-stamined roundish serrate leaves, ashly pubescent beneath, and oblong-linear bracts about as long as the petioles. Native to Kansu, western China.

100610. *TRIPTEGYIUM FORBESII* Loesner. Celastraceae.

F. 30971. A shrub about 3 feet high, with oval granulate serrate papery leaves 2 to 3 inches long and terminal panicles of small green-brown flowers. Native to open situations in the Tali Range, Yunnan.

100611 to 100614. *TSUGA* spp. Pinaceae. Hemlock.

100611. *TSUGA CHINENSIS* (Franch.) Pritz. Chinese hemlock.

G. F. 87. A large forest tree up to 150 feet high, native to western China. The branchlets are yellowish at first, later turning pale yellow-gray. The linear leaves, 1 inch long, are glossy, dark green above and have broad whitish bands beneath which later become inconspicuous. The ovoid cones, 1 inch long, have lustrous yellow-brown scales.

For previous introduction see 98384.

100612 and 100613. *TSUGA YUNNANENSIS* (Franch.) Masters. Yunnan hemlock.

A forest tree up to 150 feet high, with trunks 6 to 7 feet in diameter. The branchlets are covered with a rufous-gray pubescence, and the leaves, up to an inch long, are rounded at the apex and have white lines beneath. The small dull cones, 1 inch long, have fewer scales than those of *T. chinensis*. Native to western China at 11,000 feet altitude.

100612. G. F. 78.

100613. F. 30976.

100500 to 100618--Continued

100614. *TSUGA* sp. G. F. 83.

100615. *VACCINIUM DELAVAYI* Franch. Vacciniaceae. Blueberry.

F. 30956. A bushy shrub with grayish bark, leathery, shining-green, obovate leaves half an inch long, very small white flowers in small racemes, and small globose capsules. Native to Yunnan.

100616. *VACCINIUM* sp. Vacciniaceae. Blueberry.

F. 30688. Closely related to *V. fragile*.

100617. *VIBURNUM* sp. Caprifoliaceae.

F. 30727.

100618. (Undetermined.)

F. 29882.

100619 to 100632.

From Australia. Seeds presented by Edwin Ashby, Wittinga, Blackwood, South Australia. Received June 28, 1932. Numbered in July 1932.

100619. *ALYOGYNE HAKEAEFOLIA* (Giordano) Alefeld. Malvaceae.

An erect evergreen shrub, native to Australia, with narrow-lobed or deeply serrate leaves and large purple-lilac flowers with dark centers. It is closely related to cotton.

For previous introduction see 93829.

100620 to 100622. *CASSIA* spp. Caesalpiniaceae.

100620. *CASSIA ARTEMISIOIDES* Gaud. Wormwood senna.

An erect bushy shrub covered with silky white tomentum. The leaves are made up of 3 to 6 pairs of linear-terete leaflets 1 inch long, and the yellow flowers are in short dense racemes. It is native to Australia.

For previous introduction see 90850.

100621. *CASSIA PLBUROCARPA* F. Muell.

A tall, erect Australian shrub with 4 or 5 rather distinct pairs of thick, oblong leaflets and loose racemes of yellow flowers.

100622. *CASSIA* sp.

100623. *CHORIZEMA ILICIFOLIUM* Labill. Fabaceae.

A showy, graceful shrub from Western Australia, from 3 to 4 feet high, with brilliant orange-red, pea-shaped flowers. It blooms for many months in winter and spring.

100624. *CHORIZEMA NERVOSUM* T. Moore. Fabaceae.

An erect rigid shrub 12 inches high with pubescent branchlets, native to Western Australia. The broadly cordate leaves, one-half inch long, have undulate margins, and the small, orange-red, pea-shaped flowers are in loose racemes.

100625. *CLIANTRUS PUNICEUS* (Don) Soland. Fabaceae. Red parrotbeak.

A drooping undershrub, native to New Zealand, with dark-green pinnate leaves and long, pendulous racemes of bright-scarlet flowers.

100626 to 100628. *GREVILLEA* spp. Proteaceae.

100626. *GREVILLEA BIPINNATIFIDA* R. Br.

A prostrate or diffuse evergreen shrub 3 to 4 feet high, native to Western Australia. The broadly ovate leaves, 4 inches long and 3 inches wide, are twice divided into wedge-shaped segments. The silky pubescent, red flowers are in loose racemes 4 inches long or gathered together in a large terminal panicle.



100619 to 100632—Continued.

100619. *GREVILLEA BUXIFOLIA* (J. E. Smith) R. Br.

An evergreen shrub about 6 feet high, which stands cutting back well and produces an abundance of small pink flowers. It is native to South Australia.

100620. *GREVILLEA WILSONI* A. Cunn.

An erect shrub 3 to 5 feet high, with glabrous and glaucous branchlets, native to Western Australia. The leaves are 1 to 3 times ternately divided into narrow-linear or subulate, rigid, pungent-pointed segments 1 inch long. The brilliant-red flowers are borne in loose, erect, often-branched racemes.

100621. *HIBISCUS HUEGELII* Endl. Malvaceae.

Variety *alba*. A tall shrub, native to Australia, with 3- to 5-lobed coarsely toothed leaves 1 to 3 inches long and large white flowers, 4 to 6 inches across, with twisted petals.

For previous introduction see 95327.

100622. *HOVEA PUNGENS* Benth. Fabaceae.

A rigidly erect evergreen shrub up to 3 feet high, with linear-lanceolate, coriaceous, sharp-pointed leaves less than an inch long. The branches are covered from the bottom to the top with clusters of brilliant deep-blue flowers. The flowering season is long.

100623. *OXYLOBIUM LANCEOLATUM* (Vent.) Druce (*O. callistachys* Benth.). Fabaceae.

A tall evergreen shrub, native to Australia, with whorls of lanceolate leaves, 3 to 5 inches long, and yellow flowers in dense terminal racemes 6 inches long.

For previous introduction see 90862.

100624. *VIMINARIA DENUDATA* J. E. Smith. Fabaceae. Rush-broom.

An Australian shrub with rushlike stems up to 20 feet high, long, wiry, pendulous branches, leaves reduced to filiform petioles 6 to 9 inches long, and long, terminal racemes of orange-yellow flowers.

100625. *AMYGDALUS PERSICA* L. Amygdalaceae. Peach.

From Africa. Seeds presented by C. C. Taylor, American agricultural attaché, United States Department of Agriculture, Pretoria, Union of South Africa. Received June 24, 1932. Numbered in July 1932.

*Vaull Mammoth*. Introduced for the use of Department specialists interested in fruit breeding.

100626 to 100632. *SESAMUM ORIENTALE* L. Pedaliaceae. Sesame.

From Morocco. Seeds presented by Dr. E. Miede, Chef du Service de l'Agriculture, Directeur de la Station de Selection et d'Essais de Semences, Rabat. Received June 28, 1932. Numbered in July 1932.

100633. *Rouge de Damas*.

100634. *Du Haouz* (Maroc).

100635. *Rouge de Palestine*.

100637 to 100645.

From the Union of Soviet Socialist Republics. Seeds presented by the Nikita Botanic Garden, through the Bureau of Introduction, Institute of Plant Industry, Leningrad. Received June 30, 1932. Numbered in July 1932.

100637. *ASPARAGUS VERTICILLATUS* L. Convolvulariaceae.

No. 266. A semiwoody climbing vine, with stems 10 to 15 feet long, green, angled, flexuose

100637 to 100645—Continued.

branches, and filiform cladodes 2 inches long. The funnel-shaped, green-yellow flowers are in clusters of 1 to 4 and are followed by red berries a quarter of an inch in diameter. Native to Persia and Siberia.

For previous introduction see 91398.

100638. *EREMURUS TAURICUS* Stev. Liliaceae. Desertcandle.

No. 271. A large xerophytic perennial with a rosette of broadly linear, acute leaves a foot or more long and white flowers in a simple dense raceme over a foot long on a stout scape as long as the leaves. It is native to the mountains of Turkey and closely related to the yellow-flowered *E. spectabilis*.

100639. *LACTUCA SALIGNA* L. Cichoriaceae.

No. 71. A stiff, erect, biennial plant, 2 to 4 feet high, native to Europe. The lanceolate to oblong leaves are toothed or lobed on the margin and are upright against the stem. The small heads of pale-yellow flowers are crowded so as to appear to be clustered in a simple spike.

100640. *PAEONIA FENUFOLIA* L. Ranunculaceae. Fringed peony.

No. 325. A hardy herbaceous perennial a foot or more high, densely leafy, with ternate, much-divided leaves and an erect dark-crimson flower about 3 inches across. It is native to the Caucasus region.

For previous introduction see 90640.

100641. *PAEONIA TRITERNATA* Pall. Ranunculaceae. Peony.

No. 324. A perennial herb, native to Siberia, usually about 3 feet high, with triternate leaves and purple flowers.

For previous introduction see 90641.

100642. *ROSA SPINOSISSIMA* L. Rosaceae. Scotch rose.

No. 350. A low shrub usually 3 to 4 feet high, with spreading or recurving branches and densely prickly branchlets. It is native to Europe. The compound leaves are made up of 5 to 11 orbicular serrate leaflets about an inch long, and the pink, white, or yellow flowers, 2 inches across, are solitary but borne on numerous short branchlets along the stems.

For previous introduction see 90645.

100643 to 100645. *TULIPA* spp. Liliaceae. Tulip.

100643. *TULIPA ALTAICA* Pall.

No. 601. A tulip from the Altai Mountains, with oblong-lanceolate leaves slightly exceeding the flowers. The flower segments are alternately lanceolate and spatulate-oblong.

100644. *TULIPA MICHELIANA* Hoog.

No. 604. A tulip, native to the Caspian region, with a pubescent scape 12 inches high. The lanceolate to linear-lanceolate leaves, usually four, are striped with brown and have undulate margins. The large, single flowers are lilac-scarlet outside and vermilion-scarlet inside, with black, lanceolate blotches at the base.

100645. *TULIPA SCHRENKII* Regel.

No. 281. A tulip from Turkistan, with broadly campanulate yellow or purple-yellow flowers borne on a stem nearly a foot high. The leaves are wavy margined.

100646 to 100658.

From the Philippine Islands. Seeds presented by Arthur F. Fischer, director, Bureau of Forestry, Manila. Received June 27, 1932. Numbered in July 1932.

## 100646 to 100658—Continued.

100646. ALBIZZIA ACLE (Blanco) Merr. Mimosaceae.

*Akle*. A large tree up to 100 feet high and 3 to 4 feet in diameter, native to the Philippines. It bears bipinnate leaves, with two pinnae each bearing 3 to 6 pairs of ovate leaflets 2 to 6 inches long, and yellow-green flowers, borne in small heads, followed by flat pods 10 to 15 inches long, constricted between the seeds.

For previous introduction see 94178.

100647. ARTOCARPUS BLANCOI (Elmer) Merr. Moraceae.

*Antipolo*. This tree, which closely resembles the true breadfruit, *A. communis*, is strictly wild, never cultivated, and has inedible fruits.

100648. EUPHORIA DIDYMA Blanco. Sapindaceae.

*Alpay* or *alupay*. A small attractive tree up to 50 feet high, with compound leaves made up of prominently veined leathery leaflets and compact terminal clusters of small flowers followed by green warty fruits an inch in diameter having a shell-like rind and juicy sweet translucent pulp enclosing a large seed. Native to the Philippine Islands.

100649. GARDENIA PSEUDOPSISIDIUM (Blanco) Vill. Rubiaceae.

A small tree, 9 to 12 feet high, native to the Philippine Islands. The opposite leaves are lanceolate and acuminate, and the solitary, axillary, white flowers are followed by round fruits resembling guavas, but not edible.

100650. HERITIERA LITTORALIS Ait. Sterculiaceae.

*Duñon-late*. A medium-sized tree with a dense crown and entire leathery leaves which are dark green above and silvery beneath. The hard durable wood is classed among the best of the Philippine hardwoods. The tree is a good ornamental and makes an excellent windbreak.

100651. MYRISTICA PHILIPPENSIS Lam. Myristicaceae.

*Duyan*. A Philippine tree up to 75 feet high, with a slightly buttressed, somewhat irregular trunk. It has alternate entire evergreen leaves and small inconspicuous flowers in axillary clusters. The soft wood is not durable and is used locally for temporary construction, boxes, and dry measures.

100652. PAHUDIA RHOMBOIDEA (Blanco) Prain. Caesalpiniaceae.

*Tindalo*. A tree up to 4 feet in diameter, straight but not tall. The wood is hard, heavy, seasons well, and is rarely attacked by termites. It is a well-known Philippine cabinetwood.

100653. PALAQUIUM LUZONIENSE (Vill.) Vidal. Sapotaceae.

*Nato*. A large tropical evergreen tree with lanceolate or obovate acute leathery, dark-green leaves 5 inches long and small axillary brownish flowers. Native to Luzon, Philippine Islands.

100654. PARKIA JAVANICA (Lam.) Merr. (P. timoriana Merr.). Mimosaceae. Kupang.

A huge and remarkably handsome, quick-growing tree, attaining a height of over 120 feet, with a clear smooth trunk and beautiful, fine-leathery pinnate leaves. Native to the Malay Peninsula, Burma, etc. It has been introduced into Ceylon, where it has become well established. The long pods, which grow in clusters, contain a quantity of white, powdery, farinaceous substance.

100655. SAPIUM LUZONICUM (Vidal) Merr. Euphorbiaceae.

*Balakat-gubat*. An evergreen tree with alternate oval leathery elliptic leaves about 4 inches

## 100646 to 100658—Continued.

long, very small yellowish flowers, subtended by large bracts an inch long, in spike-like racemes. Native to the Philippines.

100656. STREBLUS ASPER Lour. Moraceae.

*Matis* or *aludig*. A drought-resistant tree with drooping branches and dark-green foliage. It produces small, yellowish, rather sweet fruits somewhat resembling corn kernels in appearance. Native to tropical Asia.

100657. TERMINALIA NITENS Presl. Combretaceae.

*Sakat*. A tropical evergreen tree, native to Luzon, Philippine Islands. The alternate, very smooth leaves are obovate, abruptly acuminate, and shining green above. The small inconspicuous flowers are in racemes about the same length as the leaves.

100658. WRIGHTIA LANITI (Blanco) Merr. Apocynaceae.

*Lanete*. A medium-sized tree native to the Philippines, with opposite, unequally pinnate leaves which have about four pairs of lanceolate, hairy leaflets. The fruit is a cylindrical follicle about 4 inches long. The tree exudes a milky sap.

## 100659. SOJA MAX (L.) Piper. Fabaceae. Soybean.

From Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930. Numbered in July 1932.

No. 3820. *Chichibu daisu*. Purchased in Kumagaya, Japan, February 11, 1930. Large, oval, yellow-green beans, with pale hilum, which are used quite extensively in the Saitama Prefecture in Japan for the manufacture of green flour, utilized in the making of confections.

## 100660 to 100676.

From New Zealand. Seeds purchased from R. E. Alexander, director, Canterbury Agricultural College, Lincoln. Received July 1, 1932.

A collection of New Zealand forage plants introduced for the use of Department specialists.

100660 and 100661. DACTYLIS GLOMERATA L. Poaceae. Orchard grass.

100660. *Cocksfoot* strain.

100661. *Akaroa*.

100662 to 100674. DANTHONIA spp. Poaceae. Grass.

100662. DANTHONIA BUCHANANI Hook. f.

Strain C. A. C. 30: 10.8.

100663 to 100670. DANTHONIA PILOSA R. Br.

A perennial Australian grass, said to be an excellent pasture grass. It seeds freely and gives good fodder in early spring. This grass does well on dry clay hills or stony flats and is considered equally good either for sheep or cattle.

100663. A commercial variety.

100664. C. A. C. 31: 253.1.

100665. C. A. C. 31: 32.3.

100666. C. A. C. 31: 30.4.

100667. C. A. C. 31: 54.2.

100668. C. A. C. 31: 225.2.

100669. C. A. C. 31: 139.3.

100670. C. A. C. 31: 136.1.

100660 to 100676—Continued.

100671 to 100674. *DANTHONIA SEMIANNULARIS* (Labill.) R. Br. Wallaby grass.

A perennial, fine-leaved, tussocky grass, 1 to 2 feet high, which provides feed for the greater part of the year. It is said to be a good winter grass, will stand a great amount of grazing, and its palatability both for cattle and sheep is well known.

100671. A New Zealand commercial variety.

100672. C. A. C. 30: 5.1.

100673. C. A. C. 31: 114.3.

100674. C. A. C. 31: 28.8.

100675. *LOLIUM PERENNE* L. Poaceae. Perennial ryegrass.

2/2. A commercial strain.

100676. *TRIFOLIUM PRATENSE* L. Fabaceae. Red clover.

A New Zealand commercial strain.

100677. *ANANAS SATIVUS* Schult. f. Bromeliaceae. Pineapple.

From the American Virgin Islands. Plants presented by J. B. Thompson, director, Agricultural Experiment Station, St. Croix. Received May 20, 1930. Numbered in July 1932.

*Blue Bond.* The leaves of this variety are without marginal spines, and the small to medium-sized fruits, purple-green before they are ripe, are of excellent quality. The fruits are smaller and quite unlike the *Smooth Cayenne*.

100678 to 100681.

From Wales. Seeds purchased from the Welsh Plant Breeding Station, University College of Wales, Aberystwyth. Received July 6, 1932.

Introduced for the use of Department specialists.

100678 and 100679. *DACTYLIS GLOMERATA* L. Poaceae. Orchard grass.

100678. S.-26. Pasture-hay type.

100679. S.-29. *Cocksfoot*, a pasture type.

100680 and 100681. *PHLEUM PRATENSE* L. Poaceae. Timothy.

100680. S.-48. Pasture-hay type.

100681. S.-51. Leafy-hay type.

100682. *CASSIA TIMORIENSIS* DC. Caesalpinaceae.

From the Philippine Islands. Seeds presented by Manuel L. Roxas, director, Bureau of Plant Industry, Manila. Received July 6, 1932.

A rather low tree with slender, downy branches, pale-green leaves up to 9 inches long, bright-yellow flowers, and thin glossy flexible pods sometimes 6 inches long. The tree is distributed throughout the Malay Archipelago and the Philippine Islands.

For previous introduction see 94095.

100683 to 100687.

From the Philippine Islands. Seeds presented by Arthur F. Fischer, director, Bureau of Forestry, Manila. Received July 6, 1932.

100683. *CALOPHYLLUM BLANCOI* Planch. and Triana. Clusiaceae.

*Bitanol.* An attractive tropical tree with opposite entire, linear-oblong, papery leaves about 8 inches long and small flowers in dense terminal and axillary racemes. Native to the Philippines.

100684. *DIPLODISCUS PANICULATUS* Turcz. Tiliaceae.

*Baloho.* A large shrub or small tree with alternate, oblong-elliptic, entire leaves, green above

100683 to 100687—Continued.

and densely white punctate beneath. The reddish flowers are in lax axillary and terminal panicles. Native to the Philippines.

100685. *MALLOTUS PHILIPPENSIS* (Lam.) Muell. Arg. Euphorbiaceae.

*Banato.* A small dioecious tree with long-stalked leaves, glabrous above, rusty tomentose beneath, and minutely scarlet dotted. The globose scarlet capsules, one third inch in diameter, are covered with a bright-red powder which is collected for export to be used in dyeing silk and in medicine. Native to India up to 4,500 feet altitude.

100686. *MANGIFERA ALTISSIMA* Blanco. Anacardiaceae.

*Pahutan.* A Philippine relative to the mango, which is found from northern Luzon to southern Mindanao, where it forms a large tree, sometimes 100 feet in height. The leaves are long, narrow, and pointed at both ends, and the small, fragrant, white flowers are borne in large numbers in branched clusters. The smooth, green or yellow mangolike fruits, 2 to 3 inches long, are used for making pickles.

100687. *TOONA CALANTAS* Merr. and Rolfe. Meliaceae.

*Kalantas.* A tall, ornamental, tropical tree with handsome pinnate foliage and whitish inconspicuous flowers in large terminal panicles. The capsule is over an inch long. In the Philippines, where this tree is native, the fragrant wood is of considerable commercial importance.

100688 to 100709.

From South America. Seeds collected by H. G. MacMillan and C. O. Erlanson, Bureau of Plant Industry. Received June 28, 1932. Numbered in July 1932.

100688. *ANNONA CHERIMOLA* Mill. Annonaceae. Cherimoya.

No. 269. From the market at Arequipa, Peru, May 10, 1932. Origin of fruit not known.

100689. *ANNONA MURICATA* L. Annonaceae. Sour-sop.

No. 273. *Guanabana.* From the market at Arequipa, Peru, May 8, 1932. Origin of fruit not known.

100690. *CAPSIUM ANNUMUM* L. Solanaceae. Common redpepper.

No. 380. From the market of Cuzco, Peru, May 18, 1932. A locally grown yellow redpepper, 3 inches long, grown at 11,000 feet altitude.

100691. *CUCUMIS MELO* L. Cucurbitaceae. Melon.

No. 29. *Melones limeños.* From the market of Temuco, Chile, February 23, 1932. A muskmelon about 6 inches in diameter, flattened endwise, striped longitudinally orange and green. The flesh is yellow and sweet.

100692. *ESCALLONIA MACRANTHA* Hook. and Arn. Escalloniaceae.

No. 34. *Siete Camisas.* From Ancud, Chiloé Island, Chile, March 6, 1932. A dense evergreen shrub, 6 to 10 feet high, native to the island of Chiloé. The shining dark-green, obovate leaves are 1 to 3 inches long, and the bright rose-red flowers, more than half an inch across, are in terminal racemes.

100693. *FRANCOA* sp. Saxifragaceae.

No. 118. From near Ancud, Chiloé Island, Chile, March 13, 1932. An herb with a rosette of leaves and a spike of capsules, growing in moist shaded places. Flowers not seen.

100694. *LIBERTIA* sp. Iridaceae.

No. 35. From Ancud, Chiloé Island, Chile, March 6, 1932. An herb 2 feet high, found on moist banks near the seashore. Flowers not seen.

## 100688 to 100709—Continued.

100695. *LIBERTIA* sp. Iridaceae.

No. 119. From near Anoud, Chiloé Island, Chile, March 13, 1932. A plant about 2 feet high, with narrow linear leaves; the fruit is a 3-valved capsule. Found in moist shaded situations. Flowers not seen.

100696. *SILENE ARMERIA* L. Silenaceae.  
Sweet-william catchfly.

No. 32. Collected March 2, 1932, near Puerto Montt, Chile. A naturalized herb 8 inches high, with pink flowers, found in moist meadows.

100697. *LYCOPERSICON ESCULENTUM* Mill. So-  
lanaceae. Tomato.

No. 321. From the market at Cuzco, Peru, May 17, 1932. Small round red tomatoes less than an inch in diameter. Grown at 11,000 feet altitude.

100698. *LYCOPERSICON ESCULENTUM* Mill. So-  
lanaceae. Tomato.

No. 31. A cultivated variety from a garden near Temuco, Chile, February 26, 1932. An herb 3 feet high, with the stems covered with long-haired pubescence, yellow flowers, and round, perfectly smooth red fruits over an inch in diameter. It is said to be indigenous.

100699. *MUTISIA VICIAEPOLEA* Cav. Asteraceae.

No. 276. From the roadside near Cuzco, Peru, at 11,500 feet altitude, May 4, 1932. A composite from 3 to 6 feet high, with sub-woody purplish stems, vetchlike foliage, and solitary, terminal, or axillary large yellow flowers.

100700. *NEMASTYLIS PEARCEI* Baker. Iridaceae.

No. 323. Collected May 20, 1932, in open meadow at 11,500 feet altitude in the hills near Cuzco, Peru. A bulbous herb 8 inches high, with large dark-blue flowers very similar to an iris. The single root leaf is linear and plicate, and the blue flowers, less than an inch long, are 1 to 4 on the spathe.

100701. *PASSIFLORA MOLLISSIMA* (H. B. K.)  
Bailey. Passifloraceae. Softleaf passionflower.

No. 318. From the market at Cuzco, Peru, May 17, 1932. An edible variety with ovate pointed yellow fruits.

For previous introduction see 99783.

100702 to 100705. *PHASEOLUS* spp. Fabaceae.100702 and 100703. *PHASEOLUS LUNATUS* L.  
Lima bean.

Introduced for comparison with types now being grown on the Pacific coast.

100702. No. 268. From the market at Arequipa, Peru, May 7, 1932. White beans.

100703. No. 322. *Pallares*. Bought at Cuzco, Peru, May 24, 1932, but grown at Ica, Peru. A cultivated variety.

100704 and 100705. *PHASEOLUS VULGARIS* L.  
Common bean.

100704. No. 320. From the market at Cuzco, Peru, May 17, 1932. A mixed sample of beans, grown at 11,000 feet altitude.

100705. No. 270. From the market at Arequipa, Peru, May 7, 1932. A mixed sample.

100706. *ROSA* sp. Rosaceae. Rose.

No. 30. From near Lago Puyehue, about 25 miles east of Osorno, Chile, February 26, 1932. A shrub 6 feet high, with pink flowers and bright-orange, pyriform-ovate hips, slightly bristly at the base. Growing wild in light loam in a roadside thicket.

## 100688 to 100709—Continued.

100707. *SISYRINCHIUM* sp. Iridaceae.

No. 324. From Cuzco, Peru, May 20, 1932. A small herb 6 inches high, suitable for the rock garden, found in an open meadow in the hills at 11,500 feet altitude. The flowers are blue.

100708. *SOLANUM* sp. Solanaceae.

No. 279. From near Cuzco, Peru, May 19, 1932. A low herb 6 inches high, with purple flowers and yellow berries, collected in moist loam at 11,500 feet altitude.

100709. *SOLANUM* sp. Solanaceae.

No. 381. From near Cuzco, Peru, May 18, 1932. A plant 4 feet high, with green-white berries, found in open meadow at 11,000 feet altitude.

100710. *PENNISSETUM CHILENSE* (Desv.)  
Jacks. Poaceae. Grass.

From Chile. Seeds presented by C. de la Barra, commercial secretary, Chilean Embassy, Washington, D.C. Received July 12, 1932.

*Ratonera*. A glaucous perennial 4 to 7 feet high, native to Chile, with flat or folded leaves and dense, rather stiff, gray to pale-purple panicles 6 to 8 inches long.

100711. *ANNONA SQUAMOSA* L. An-  
nonaceae. Sugar-apple.

From the West Indies. Seeds collected by David Fairchild and F. H. Dorsett, agricultural explorers, Bureau of Plant Industry, with the Allison V. Armour expedition, 1931-32. Received February 2, 1932. Numbered in July 1932.

Introduced for comparison with the hybrid cherimoyas now growing in southern Florida.

100712. *CARICA PAPAYA* L. Papaya-  
ceae. Papaya.

From the Philippine Islands. Seeds presented by the director of Plant Industry, Manila. Received January 4, 1931. Numbered in July 1932.

No. 137. A variety with purple fruits.

## 100713 to 100718.

From Bolivia. Tubers collected by H. G. MacMillan and C. O. Erlanson, Bureau of Plant Industry. Received July 12, 1932.

100713 to 100717. *OXALIS TUBEROSA* Molina.  
Oxalidaceae.

*Oca*. A plant native to South America, related to the woodsorrel of the United States. It is grown in the Andes for its edible tubers.

100713 to 100716. Collected at La Paz at 12,500 feet altitude, June 10, 1932.

100713. No. 425. Short yellow tubers with red eyes.

100714. No. 426. Small, thin, irregular, red and white tubers.

100715. No. 427. Short, thick, red tubers.

100716. No. 428. Very long, thin, dark-red tubers.

100717. No. 394. From Cochabamba, June 5, 1932, at 8,300 feet altitude. Long, slim, round, yellow tubers with closed red eyes and yellow, carrotlike flesh.

100718. *CANNA INDICA* L. Cannaceae.

No. 468 *Ajira*. From La Paz, June 20, 1932, at 10,000 feet altitude. A root regarded as a great delicacy among the Bolivians. It is used to flavor ice cream.

**100719. CINNAMOMUM BURMANNE**  
Blume. Lauraceae.

From Sumatra. Seeds presented by Edward Jacobson, Fort de Kock. Received July 9, 1932.

An evergreen tree, native to Java, with shining green, ovate-oblong, papery leaves of variable size, usually 2 to 6 inches long, emitting a cinnamon aroma.

For previous introduction see 94258.

**100720. LIGUSTRUM JAPONICUM ROTUN-**  
**DIFOLIUM** Blume (*L. coriaceum*  
Carr.). Oleaceae. Dwarf privet.

From South Carolina. Cuttings presented by the Pinehurst Nursery, Summerville. Received July 14, 1932.

A compact form of the Japanese privet, up to 6 feet high, with crowded, suborbicular, lustrous, evergreen leaves 2 to 3 inches long, and dense panicles, 2 to 4 inches long, of small white flowers followed by small, blue-black, subglobose fruits.

**100721. SESAMUM ORIENTALE L. Peda-**  
**liaceae.** Sesame.

From Palestine. Seeds presented by the director of Agriculture, Forests, and Fisheries, Jerusalem. Received July 13, 1932.

From the Government Experiment Station at Beisan. One of the best types grown.

**100722. CARYOPHYLLUS JAMBOS (L.)**  
**Stokes (Eugenia jambos L.). Myr-**  
**taceae.** Rose-apple.

From the West Indies. Seeds presented by Stephen Hawels, Mount Joy, Dominica, British West Indies. Received June 19, 1931. Numbered in July 1932.

A medium-sized handsome tree, native to India and the Malay Peninsula, but cultivated in many tropical countries for the edible, fragrant, pinkish fruits which are about the size of a hen's egg, of a sweetish acid taste, and said to be used as preserves. It thrives best in moist regions at elevations up to 3,000 feet, preferring a deep rich soil; it is propagated by seed.

For previous introduction see 93358.

**100723. MEDICAGO SATIVA L. Faba-**  
**ceae.** Alfalfa.

From Turkey. Seeds presented by Charles E. Allen, American consul, Istanbul, through the State Department. Received July 20, 1932.

Turkish alfalfa, introduced for the use of Department specialists interested in forage crops.

**100724 to 100798. SOLANUM TUBERO-**  
**SUM.** Solanaceae. Potato.

From South America. Tubers collected by H. G. MacMillan and C. O. Erlanson, Bureau of Plant Industry. Received July 12, 1932.

100724 and 100725. Collected in the region of Cuzco, Peru, May 25 and 26, 1932, at 11,000 feet altitude.

100724. No. 382. Medium-sized, elongated, gray-purple tubers, with heavy-browed, shallow eyes and white flesh with purple vascular ring.

100725. No. 383. Medium-sized, ovate, flattened tubers, with white skin mottled with red, shallow eyes and white flesh.

100726 to 100735. Collected June 5, 1932, at Cochabamba, Bolivia, at 8,300 feet altitude.

100726. No. 384. Round, purple and red mottled tubers, which have yellow-white flesh and deep eyes with pink buds.

**100724 to 100798—Continued.**

100727. No. 385. Round white tubers tinted with pink, deep open eyes and white flesh.

100728. No. 386. Long, slim, curved or curled, twisted tubers, with thick dark skin, deep closed eyes, and white flesh with the center purple.

100729. No. 387. Long, cylindrical tubers, with thick gray-black skin which becomes purple when cut, shallow eyes, and yellow-white flesh.

100730. No. 388. Long, cylindrical, pink tubers with deep white eyes.

100731. No. 389. Round, pink and white tubers, flat at the bud end, with open, medium deep eyes and white flesh.

100732. No. 390. Large, long, cylindrical, tan-white tubers, with deep eyes and lightly mottled white flesh.

100733. No. 391. Round white tubers, some spotted with pink, with open flat eyes, some showing pink, and white flesh.

100734. No. 392. Small, round yellow tubers spotted with red, shallow eyes with long eyebrows, and flesh yellow at vascular region, fading to white at center of potato.

100735. No. 393. Round, small to medium-sized, dark-purple tubers, with deep open eyes full of red buds, and yellow-white flesh with purple spots in the vascular ring.

100736 to 100798. Collected from June 9 to June 19, near La Paz, Bolivia, at 12,500 feet altitude.

100736. No. 401. *Chaco Chaco*. Medium to small pink tubers generally pointed at the bud end, with numerous deep, straight eyes and yellow-white flesh flecked with red inside the vascular ring.

100737. No. 402. *Cunduma*. Small, round, black tubers, except around the numerous deep eyes, where they are yellowish white, and yellowish flesh with purple flecks, heaviest at the stem end. This is locally known as a sweetpotato, *papa dulce*.

100738. No. 403. *Rinkel*. Round, medium-sized tubers, yellowish to dirty white and black around the stem; the center of the medium to deep eyes is white, surrounded by black, and the flesh is clear yellow. Known locally as a sweetpotato, *papa dulce*.

100739. No. 404. *Chapallo*. Small-sized, round brown-tan tubers with clear yellowish flesh and deep, brown-tan eyes with bulging eyebrows.

100740. No. 405. *Thuila Nimilla*. Medium-sized, round, pink tubers with deep, pink eyes and white flesh.

100741. No. 406. *Cholo Colorado*. Small-sized round red tubers with eyes exceptionally deep, open at the stem end, deeply notched at the bud end. The yellowish flesh is flecked throughout with red.

100742. No. 407. *Follhaco*. Tubers medium-sized, round, eyes medium deep, bulging between the eyes, skin red, white below the eyes. Flesh clear white.

100743. No. 408. *Choquefrut*. Round, medium-sized, white tubers, tinted pink at the stem end, medium to shallow eyes with very long eyebrows and clear white flesh. This is known as a bitter variety.

100744. No. 409. *Pidrija*. Medium-sized, round, flat, pink to purple tubers with white flesh. The deep open eyes have short eyebrows and vary in color as the tuber does.

100745. No. 410. *Pulo Colorado*. Long, cylindrical, medium-sized, red tubers with thick skin, which is slightly darker at the few shallow eyes; the flesh is yellowish white.

## 100724 to 100798—Continued.

100748. No. 411. *Piño llulluchi*. Long, cylindrical, medium-sized tubers with thick, red skin, medium closed, long eyes, and white flesh with a yellow tinge and a red vascular ring.
100747. No. 412. *Kunurana*. Small, round, white tubers tinted with pink, which have deep, open, bright pink eyes and yellow-white flesh. Known as a sweetpotato, *papa dulce*.
100748. No. 413. *Piño Blanco*. Long, cylindrical, medium-sized, yellow-white tubers with medium to deep, partly closed eyes with long eyebrows, and white flesh.
100749. No. 414. *Fina Yunka Tujro*. Small, long, cylindrical, gray-purple tubers with thick skin, shallow to medium eyes, nearly closed with long eyebrows, and yellow-white flesh. It is known as a sweetpotato, *papa dulce*.
100750. No. 415. *Laisalla*. Long, cylindrical, bright-purple tubers with shallow, closed eyes and extra long eyebrows, and clear white flesh.
100751. No. 416. *Lague*. Long, cylindrical, white tubers with a faint tinge of pink, shallow eyes and pure white flesh. This is known as a bitter potato.
100752. No. 417. Long, pointed, medium-sized, gray-black tubers with medium-closed, short eyes and white flesh, with sharply defined irregular purple areas, especially at the center of the tuber.
100753. No. 418. Small, long, cylindrical, tan white tubers with white flesh and medium to shallow open eyes with short eyebrows.
100754. No. 419. *Fina Sultmana*. Small, long, cylindrical tubers with the skin sharply mottled with white and purple, shallow half-closed eyes with curved eyebrows, and clear white flesh. A sweetpotato, *papa dulce*.
100755. No. 420. *Piño Huila*. Small, cylindrical, long, pointed, pink-red tubers with shallow, open, bright pink eyes and yellow-white flesh. Regarded as a very fine sweetpotato.
100756. No. 421. Round purple tubers which vary in size from large to small, with deep, open eyes and pale yellow flesh.
100757. No. 422. Medium-sized, cylindrical, long, pointed, white tubers with numerous deep to medium, closed eyes and white flesh.
100759. No. 423. Cylindrical, long, pointed, gray to purple tubers with numerous medium to deep, closed eyes and white flesh.
100759. No. 424. Flat, round, purple tubers with dirty, white flesh and open, shallow, purple eyes with exceptionally long eyebrows.
100760. No. 429. Medium-sized, long, oval tubers with thin pink-tan skin and shallow eyes.
100761. No. 430. Smooth, round, medium-sized, yellow tubers with clear yellow flesh and medium-open eyes with pink buds.
100762. No. 431. Large, round to long, oval tubers with smooth gray-tan skin underlaid with faint purple, white flesh, and shallow open eyes which are generally pink.
100763. No. 432. Medium-sized long cylindrical smooth light-yellow tubers with clear light-yellow flesh and shallow open eyes with pink buds.
100764. No. 433. Smooth tubers which vary in shape from round to rough cylindrical and in color from red to purple. The eyes are generally deep and closed and of bright color; the

## 100724 to 100798—Continued.

- light-yellow flesh is mottled with red inside the vascular ring.
100765. No. 434. Large, long, pointed, smooth white tubers with patches of red, the shallow open eyes are distinctly red, and the clear white flesh is of heavy consistency.
100768. No. 435. Medium to large, long, exceptionally flat, white tubers with occasional purple spots, with very shallow flat colorless eyes, and yellow watery flesh with light fleckings of purple at the bud end.
100767. No. 436. Large, long, pointed, dark-gray tubers with a tendency to curve, white flesh with the vascular ring and the center of the tubers purple, and medium to shallow, open eyes with, usually, purple buds.
100768. No. 437. Medium-sized, round, black-gray tubers with clear yellow flesh and deep, open, purple eyes with dark buds.
100769. No. 438. Large, round to flat-oblong, smooth tubers with thin red-gray skin, medium-opened eyes with red buds, and light-yellow flesh mottled throughout with red.
100770. No. 439. Medium-sized, round tubers, white at the bud end, red-purple at the stem end, with medium to deep eyes, closed at the stem end, open at the bud end, and with white buds; the flesh is clear white.
100771. No. 440. Medium-sized, round, red-purple tubers, distinctly marked with tan around the eyes; the flesh is dirty white, and the very deep, nearly closed eyes have no color in the buds.
100772. No. 441. Medium-sized, round tubers, pink at the stem end, white to tan at the bud end, with medium to deep, open eyes which have no color in the buds.
100773. No. 442. Round, medium-sized, smooth, pink tubers with medium to deep eyes with pink buds.
100774. No. 443. Round, flat tubers with white skin faintly streaked crosswise with purple, and which vary in size from medium to large, with shallow, bulging, colorless eyes and clear white flesh.
100775. No. 444. Large, round, deep-red, uniformly smooth tubers with medium to deep, open, red eyes.
100776. No. 445. Long, thin-pointed, tan and purple spotted tubers with shallow closed eyes having long eyebrows, and white flesh flecked with purple inside the vascular ring towards the bud end.
100777. No. 446. Long, cylindrical, pointed, dark-red, uniformly smooth tubers with a tendency to be flat. The shallow eyes have long eyebrows and light-red buds, and the dark-red flesh is lightly mottled with white.
100778. No. 447. Large, round, white tubers with deep closed eyes and white flesh.
100779. No. 448. Long, cylindrical, blunt, white tubers, faintly spotted with purple, with numerous, very deep, closed eyes and white flesh with distinct stippings of purple in the vascular ring.
100780. No. 449. Round, medium-sized, tan tubers with a pink tinge, deep colorless eyes, and yellow flesh.
100781. No. 450. Large, cylindrical, long, smooth tubers, pink-tan at the stem end, merging to purple-tan at the bud end, with medium open eyes which have very long eyebrows and colorless buds, and clear white flesh.
100782. No. 451. Medium-sized, round, uniformly dark-red tubers with white flesh and deep, open eyes with very long eyebrows.

100724 to 100798—Continued.

100763. No. 452. Round, oval, medium-sized, white tubers, faintly pink at the shallow open eyes, with clear white flesh.
100764. No. 453. Round, smooth, medium-sized, white tubers with shallow colorless eyes and white flesh, faintly tinged with yellow.
100765. No. 454. Long, cylindrical, pointed, purple tubers with deep, closed, eyes and white flesh with a yellowish tinge and purple mottling near the epidermis in the bud-end half.
100766. No. 455. Medium-sized, round, dark-pink tubers with medium to deep, open eyes of a brighter pink and white flesh.
100767. No. 456. Medium-sized, flat, oval, bright-purple tubers with dirty-white flesh and flat, open eyes with long eyebrows.
100768. No. 457. Large, round, uniformly red tubers with deep wide-open eyes and white flesh, the center of which has a water-soaked appearance.
100769. No. 458. Small, long, pointed, pink tubers, some of which are curved, with medium, closed eyes and white flesh, which is red inside the vascular ring.
100790. No. 459. Round to cylindrical, medium-sized, smooth white tubers with shallow, open, pink eyes and white flesh.
100791. No. 460. Medium-sized, round, tan-white tubers with small, open, light-pink eyes and light-pink eyebrows. The flesh is a uniform yellow.
100792. No. 461. Small, smooth, flat oval, pointed, white tubers with very flat, colorless eyes and yellow-white flesh.
100793. No. 462. Medium to small, round, gray-tan tubers with medium, open eyes and yellow-white flesh.
100794. No. 463. Round to cylindrical tubers, spotted purple at the stem end and tan-white at the bud end, shallow, open eyes with purple buds and white flesh.
100795. No. 464. Small, cylindrical, pointed, white tubers with deep, semiopen eyes and clear white flesh.
100796. No. 465. Medium-sized, round, pink-purple tubers with medium, open eyes which are pink at the bud end, and yellow-white flesh.
100797. No. 466. Medium to small, round to cylindrical, white tubers with clear white flesh and medium to shallow, open eyes, which are pink around the buds.
100798. No. 467. Small, long, pointed, white tubers, faintly pink around the lenticels, with a tendency to be flat and curved, shallow, closed eyes, and dirty-white flesh.

100799 to 100832. CINCHONA spp.  
Rubiaceae.

From Guatemala. Cuttings presented by Col. Victor E. Rueli, Caldwell, N.J. Received July 13, 1932.

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|----------------------|----------------------|
| 100799. CINCHONA sp. | 100803. CINCHONA sp. |
| No. 6.               | No. 10.              |
| 100800. CINCHONA sp. | 100804. CINCHONA sp. |
| No. 7.               | No. 11.              |
| 100801. CINCHONA sp. | 100805. CINCHONA sp. |
| No. 8.               | No. 12.              |
| 100802. CINCHONA sp. | 100806. CINCHONA sp. |
| No. 9.               | No. 13.              |

100799 to 100832—Continued.

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|----------------------|----------------------|
| 100807. CINCHONA sp. | 100820. CINCHONA sp. |
| No. 14.              | No. 29.              |
| 100808. CINCHONA sp. | 100821. CINCHONA sp. |
| No. 15.              | No. 30.              |
| 100809. CINCHONA sp. | 100822. CINCHONA sp. |
| No. 17.              | No. 31.              |
| 100810. CINCHONA sp. | 100823. CINCHONA sp. |
| No. 18.              | No. 32.              |
| 100811. CINCHONA sp. | 100824. CINCHONA sp. |
| No. 19.              | No. 33.              |
| 100812. CINCHONA sp. | 100825. CINCHONA sp. |
| No. 20.              | No. 34.              |
| 100813. CINCHONA sp. | 100826. CINCHONA sp. |
| No. 21.              | No. 36.              |
| 100814. CINCHONA sp. | 100827. CINCHONA sp. |
| No. 22.              | No. 37.              |
| 100815. CINCHONA sp. | 100828. CINCHONA sp. |
| No. 23.              | No. 39.              |
| 100816. CINCHONA sp. | 100829. CINCHONA sp. |
| No. 25.              | No. 40.              |
| 100817. CINCHONA sp. | 100830. CINCHONA sp. |
| No. 26.              | No. 41.              |
| 100818. CINCHONA sp. | 100831. CINCHONA sp. |
| No. 27.              | No. 50.              |
| 100819. CINCHONA sp. | 100832. CINCHONA sp. |
| No. 28.              | Rootslips.           |

100833 to 100837.

From Bolivia. Seeds collected by H. G. MacMillan and C. O. Erlanson, Bureau of Plant Industry. Received July 12, 1932.

Collected at Cochabamba, Bolivia, June 5, 1932, at 8,300 feet altitude.

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|---------------------------------------|----------------------|
| 100833. ARACHIS HYPOGAEA L.           | Fabaceae.            |
| No. 398.                              | Peanut.              |
| 100834. ANNONA CHERIMOLA Mill.        | Annonaceae.          |
| No. 399.                              | Cherimoya.           |
| 100835. LENS ESCULENTA Moench.        | Fabaceae.            |
| No. 397.                              | Lentil.              |
| 100836. LYCOPERSICON ESCULENTUM Mill. | Solanaceae.          |
| No. 400.                              | Tomato.              |
| 100837. PHASEOLUS COCCINEUS L.        | Fabaceae.            |
|                                       | Scarlet runner bean. |

No. 396. *Porotos*. Large white beans. Introduced for comparison with the types now being grown on the Pacific coast.

100838 and 100839.

From Tasmania. Seeds collected by the late Gustave Weindorfer in Cradle Valley and presented by L. A. Evans, Department of Agriculture, Hobart. Received July 25, 1932.

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|---|-----------|
| 100838. ATHROTAXIS CUPRESSOIDES Don.  | Pinaceae. |
| An evergreen tree about 40 feet high, somewhat resembling cryptomeria, with ascending branches covered with closely appressed, broad, obtuse leaves one sixth of an inch long and small woody spherical cones half an inch in diameter. |           |

## 100838 and 100839—Continued.

100839. *RHAGODIA NUTANS* R. Br. Chenopodiaceae.

A slender prostrate or procumbent perennial herb, native to Australia, with stems 2 to 3 feet long. The opposite or alternate leaves, 1 inch long, vary from broadly hastate to lanceolate, and the inconspicuous flowers are borne in axillary and terminal clusters.

100840. *TRIFOLIUM PRATENSE* L.  
Fabaceae. Red clover.

From the Union of Soviet Socialist Republics. Seeds presented by the Institute of Applied Botany, Leningrad. Received July 26, 1932.

Double-crop Ukrainian variety of red clover from the Kiev grain elevator. Introduced for the use of Department specialists.

100841. *MANGIFERA* sp. *Anacardiaceae*.

From the Philippine Islands. Seeds presented by S. N. Parmelee through L. A. Whitney, Honolulu, Hawaii. Received July 28, 1932.

This variety of mango produces luscious fruit and is adapted to localities in which *M. indica* will not thrive.

100842 to 100846. *LONICERA* spp.  
*Caprifoliaceae*. Honeysuckle.

From Jamaica Plain, Mass. Cuttings presented by the Arnold Arboretum. Received August 1, 1932.

100842. *LONICERA ALTMANNII PILOSUSCULA* Rehder.

A hardy deciduous shrub, eventually about 6 feet high, with broadly or narrowly ovate, acute leaves 1 to 2 inches long, pale and softly pubescent beneath. The yellow-white flowers are followed in June or July by globose orange-red berries one-third inch in diameter. Native to Turkistan.

100843. *LONICERA GYNOCHELAMYDEA* Hemsl.

An upright deciduous shrub, with purplish branchlets and narrow lanceolate acuminate pubescent leaves 2 to 4 inches long. The pink-tinged white flowers, half an inch long, are followed by pale-purple or white berries. Native to western China.

100844. *LONICERA KOROLKOVII* Stapf.  
Blueleaf honeysuckle.

A spreading shrub 10 to 12 feet high, with blue-green, ovate or elliptic leaves about 1 inch long, slightly pubescent above and densely so beneath. The pink flowers, over one-half inch long, are succeeded by bright-red berries. Native to Turkistan.

100845. *LONICERA MAXIMOWICZII SACHALINENSIS* Schmidt.

A Manchurian honeysuckle which develops into a shrub 9 feet high, with elliptic or oblong, dark-green leaves 2 inches long. The violet-red flowers, about one-half inch long, are followed by ovoid red berries.

100846. *LONICERA TENUIPES* Nakai.

A spreading bush 5 feet high, with shining dark-green, elliptic or oblong, hairy leaves, 1 or 2 inches long, numerous small, deep-pink flowers, and ellipsoid red berries. Native to Japan.

100847. *RHAPHIS ACICULATA* (Retz.)  
Desv. Poaceae. Grass.

From Guam. Seeds presented by C. W. Edwards, director, Guam Agricultural Experiment Station. Received July 23, 1932.

A grass generally distributed throughout tropical Asia, the Polynesian Islands, and Australia. At

## 100847—Continued.

Hong Kong it is used extensively for lawns. In the Philippines and India it furnishes a good deal of native pasturage, but is objectionable from the fact that when it is allowed to fruit, the fruits are sharp-pointed, like needles, causing some injury to the animals and a nuisance in sticking to clothing. It has been tried in Florida, where it succeeds well enough, but thus far has not proved to be aggressive.

## 100848 to 100907.

From China. Seeds collected by the sixth Forrest expedition, 1930-32, to southwestern China, and presented by Henry McLaren, Bodnant, Tal-y-Cafn, North Wales. Received August 1, 1932.

100848. *ABIES CHENSINENSIS* Van Tiegh. Pinaceae. Fir.

F. 30663. For previous introduction and description see 100500.

100849. *ABIES GEORGEI* Hort. Pinaceae. Fir.

A name for which a place of publication and a description have not been found.

For previous introduction see 99823.

100850 to 100852. *ACER* spp. Aceraceae. Maple.

100850. *ACER DAVIDI* Franch.

F. 29881.

For previous introduction and description see 100503.

100851. *ACER LAXIFLORUM* Pax. (*A. Forrestii* Diels).

F. 30726.

For previous introduction and description see 100504.

100852. *ACER* sp.

F. 29592.

100853 to 100858. *ASTER* spp. Asteraceae.

100853. *ASTER STATICIFOLIUS* Franch.

F. 30625. An aster from high altitudes in southwestern China. The stems, about a foot long, are often decumbent, and the oblong-spatulate leaves are more or less basal. The flower heads have yellow disk flowers and violet-blue rays.

For previous introduction see 100154.

100854. *ASTER* sp.

F. 30627.

100855. *ASTER* sp.

F. 30644.

100856. *ASTER* sp.

F. 30636.

100857. *ASTER* sp.

F. 30637.

100858. *ASTER* sp.

F. 30814. Closely related to *A. Forrestii*.

100859. *BUDDLEIA FALLOWIANA* Balf. and Smith. Loganiaceae.

F. 30932.

For previous introduction and description see 100516.

100860. *CARPINUS* sp. Betulaceae. Hornbeam.

G. F. 74.

100861. *CHIRITA* sp. Gesneriaceae.

F. 29436. A form closely related to *C. trilliana*.



100848 to 100907—Continued.

100863. *CLETHRA DELAVAYI* Franch. Clethraceae.  
F. 30518.  
For previous introduction and description see 100526.
100863. *CODONOPSIS TUBULOSA* Kom. Campanulaceae.  
F. 30505. A twining perennial, native to grassy meadows in the mountains of Yunnan at 7,000 feet altitude. The nearly sessile leaves are ovate-lanceolate, and the small tubular white flowers are solitary on very short peduncles.  
For previous introduction see 99847.
100864. *CODONOPSIS* sp. Campanulaceae.  
G. F. 51.
100865. *CRATAEGUS HENRYI* Dunn. Malaceae.  
Hawthorn.  
F. 30713.  
For previous introduction and description see 100534.
- 100866 to 100869. *CREMANTHODIUM* spp. Asteraceae.  
100866 to 100868. *CREMANTHODIUM RHODOCEPHALUM* Diels.  
An alpine composite, 3 to 9 inches tall, with long-stemmed, rounded-reniform leaves, purple beneath, and gray-pink ray florets. Native to limestone cliffs in Yunnan.  
For previous introduction see 99852.  
100866. F. 30445.  
100867. F. 30523.  
100868. F. 30757.
100869. *CREMANTHODIUM* sp.  
F. 29868.
100870. *DAPHNIPHYLLUM* sp. Euphorbiaceae.  
G. F. 332.
100871. *DECAISNEA FARGESH* Franch. Lardizabalaceae.  
F. 30466.  
For previous introduction and description see 100538.
100872. *DICRANOSTIGMA* sp. Papaveraceae.  
F. 30077.
100873. *DIDISSANDRA SERICEA* Craib. Gesneriaceae.  
F. 30615. A rock plant with leaves forming rosettes, and blue flowers.  
For previous introduction see 99860.
100874. *EPILOBIUM* sp. Onagraceae.  
G. F. 346.
100875. *EUPTELEA PLEIOSPERMA* Hook. f. and Thoms. Trochodendraceae.  
G. F. 73.  
For previous introduction and description see 100548.
- 100876 and 100877. *HYDRANGEA YUNNANENSIS* Rehder. Hydrangeaceae.  
For previous introduction and description see 100556.  
100876. F. 29755.  
100877. F. 29842.

100848 to 100907—Continued.

100878. *JUNIPERUS RECURVA* Buch.-Ham. Pinaceae.  
Himalayan juniper.  
F. 29591.  
For previous introduction and description see 100564.
100879. *LESPEDEZA FORMOSA* (Vogel) Koehne. Fabaceae.  
Purple bushclover.  
F. 30850.  
For previous introduction and description see 100573.
100880. *PARASYRINGA SEMPERVIRENS* (Franch. W. W. Smith. Oleaceae.  
F. 30859.  
For previous introduction and description see 100578.
100881. *PHOTINIA FLAVIDIFLORA* W. W. Smith. Malaceae.  
F. 29542. An evergreen shrub 12 to 20 feet high, with thick, leathery, oblanceolate or elliptic leaves 6 to 8 inches long, and small cream-yellow flowers in dense terminal corymbs about 4 inches long. Native to southwestern China.
100882. *PICEA LIKIANGENSIS* (Franch.) E. Fritz. Pinaceae.  
Spruce.  
G. F. 104.  
For previous introduction and description see 100584.
100883. *POPULUS* sp. Salicaceae. Poplar.  
F. 30646.
- 100884 to 100886. *POTENTILLA* spp. Rosaceae. Cinquefoil.  
100884. *POTENTILLA ERIOCARPA* Wall.  
F. 30821. A perennial herb with a stout rootstock from which arise branches 4 to 10 inches long, densely clothed with imbricating woolly stipular sheaths. From the tips of these branches grow the slender, suberect, flowering stems bearing thin three-lobed and incised leaves about 1 inch long, and solitary yellow flowers 1 to 2 inches across. It is native to northern India.  
For previous introduction see 100216.
100885. *POTENTILLA FRUTICOSA* L. Shrubby cinquefoil.  
F. 30442. A pale form.  
For previous introduction see 99973.
100886. *POTENTILLA FRUTICOSA VEITCHII* (Wils.) Bean. Veitch cinquefoil.  
F. 30621.  
For previous introduction and description see 100589.
100887. *MALUS* sp. Malaceae. Apple.  
F. 30739. Closely related to *M. theifera*.
- 100888 to 100901. *RHODODENDRON* spp. Ericaceae.  
100888 and 100889. *RHODODENDRON BULLATUM* Franch.  
For previous introduction and description see 100333.  
100888. G. F. 16.  
100889. F. 30393.
100890. *RHODODENDRON EUCHAITES* Balf. and Forr.  
F. 29545.  
For previous introduction and description see 100338.

## 100848 to 100907—Continued.

100891. RHODODENDRON FACETUM Balf. and Ward.

F. 29926.

For previous introduction and description see 100339.

100892. RHODODENDRON GRIERSONIANUM Balf. and Forr.

F. 29762.

For previous introduction and description see 97665.

100893. RHODODENDRON HIPPOPHAEOIDES Balf. and Smith.

G. F. 21.

For previous introduction and description see 100344.

100894. RHODODENDRON KYAWI Lace and Smith.

F. 29929.

For previous introduction and description see 100346.

100895 and 100896. RHODODENDRON LITENSE Balf. and Forr.

For previous introduction and description see 100348.

100895. G. F. 7.

100896. G. F. 3.

100897. RHODODENDRON MOLLI-COMUM Balf. and Smith.

F. 30940.

For previous introduction and description see 100089.

100898 and 100899. RHODODENDRON STEWARTIANUM Diels.

For previous introduction and description see 100357.

100898. F. 29663.

100899. F. 29685.

100900. RHODODENDRON TEPHROPELUM Balf. and Farr.

F. 29655.

For previous introduction and description see 100361.

100901. RHODODENDRON sp.

G. F. 17. Selense series.

100902. SCHIZANDRA CHINENSIS (Turcz.) Baill. Magnoliaceae.

F. 30468. A woody vine, native to northeastern China, with shining dark-green, oval leaves and clusters of coral-colored berries.

For previous introduction see 94045.

100903. SORBUS sp. Malaceae. Mountain-ash. F. 30970.

100904. SPIRAEA sp. Rosaceae. Spirea.

G. F. 80. Closely related to *S. canescens glaucophylla*.

100905. STRINGA YUNNANENSIS Franch. Oleaceae. Yunnan lilac. F. 30486.

For previous introduction and description see 100096.

100906. VACCINIUM FRAGILE Franch. Vacciniaceae.

F. 30688. A low shrub, native to western China, with small rigid, broadly oval leaves about one half inch long and small rose-purple flowers in

## 100848 to 100907—Continued.

dense thyrsoid racemes, 1 to 2 inches long, followed by small globose fruits.

100907. VIBURNUM sp. Caprifoliaceae.

F. 30719.

100908. MANGIFERA ODORATA Griffith. Anacardiaceae.

From the Philippine Islands. Seeds presented by S. N. Parmelee, Hawaii, through L. A. Whitney, Honolulu. Received August 1, 1932.

This Philippine tree is very similar to the mango in habit, foliage, and flowers. The fruits, about the size of a carabao mango, but more rounded, are green, thick-skinned, sweet, and juicy, very aromatic, with yellow flesh containing numerous coarse fibers.

100909 and 100910. PERSEA AMERICANA Mill. Lauraceae. Avocado.

From Pasadena, Calif. Scions purchased from Carter Barrett, avocado specialist. Received August 2, 1932.

100909. *Kanola*. Small, round, purple fruit with yellow flesh, free from fiber and of rich flavor. The seed is comparatively small for a fruit of this form.

100910. *Mayapan*. This variety possesses several excellent commercial characteristics—round form, desirable size (nearly 1 pound), attractive purple color, thick firm skin, and flesh of excellent quality; the seed is not large.

100911. PHOENIX ACAULIS Buch-Ham. Phoenicaceae. Date palm.

From India. Seeds collected in the Dehra Dun forests and presented through the Royal Botanic Gardens, Kew, England. Received August 2, 1932.

A low pinnate-leaved palm, native to northern and central India. The short bulbous trunk is 6 to 8 inches in diameter, the leaves are 2 to 6 feet long with the rigid leaflets arranged in clustered fascicles, and the elliptic-oblong fruits, less than an inch long, are bright red to blue-black.

100912. BALSAMOCITRUS PANICULATA (Schum.) Swingle. Rutaceae.

From Africa. Seeds presented by the Agricultural Department, Ibadan, Nigeria, through W. T. Swingle, Bureau of Plant Industry. Received August 2, 1932.

A spiny shrub, native to western tropical Africa, with membranous trifoliate leaves consisting of oblong-ovate leaflets, 1 to 3 inches long, small, white flowers, and globose woody fruits.

100913 to 100933. ORYZA SATIVA L. Poaceae. Rice.

From China. Seeds presented by F. A. McClure, Lingnan University, Canton. Received August 3, 1932.

A collection of native rices, introduced for the use of Department specialists.

100913. No. 2465. 100924. No. 2476.

100914. No. 2466. 100925. No. 2477.

100915. No. 2467. 100926. No. 2478.

100916. No. 2468. 100927. No. 2479.

100917. No. 2469. 100928. No. 2480.

100918. No. 2470. 100929. No. 2481.

100919. No. 2471. 100930. No. 2482.

100920. No. 2472. 100931. No. 2483.

100921. No. 2473. 100932. No. 2484.

100922. No. 2474. 100933. No. 2485.

100923. No. 2475.

100934 to 100941.

From Guam. Seeds and scions presented by S. R. Vandenberg, associate entomologist at the Guam Agricultural Experiment Station, through the director, C. W. Edwards. Received August 8, 1932.

100934. CITRUS HYSTRIX DC. Rutaceae. Carabao.

Seeds of a large thorny tree, 20 to 30 feet high, with leaves 6 to 8 inches long. The fruits vary in shape from oblate to pyriform-turbinate or oblong; the smooth or more or less corrugated thick rind is greenish lemon-yellow, and the greenish flesh is juicy and sharply acid. The tree is said to be resistant to the citrus canker.

For previous introduction see 99321.

100935. MANGIFERA INDICA L. Anacardiaceae. Mango.

Seeds of the Carabao and Saigon mangoes.

100936 to 100941. PERSEA AMERICANA Mill. Lauraceae. Avocado.

Nos. 100936 to 100938 were scions collected on the ranch of T. Villagomez, near Barrigado.

100936. No. 1. Largest tree west of ranch.

100937. No. 2. Tree north of largest tree west of ranch.

100938. No. 3. Tree closest to the road near the patrol quarters.

100939. No. 4. Scions from a small tree east of the mango trees at the ranch of Juan Taltano, Barrigado.

Nos. 100940 and 100941 were scions collected at Dededo.

100940. No. 5. From the ranch of José Lugan.

100941. No. 6. From the ranch of Joe Tames.

100942 to 100944. PERSEA spp. Lauraceae.

From Costa Rica. Scions collected by H. E. Stork, professor of botany, Carleton College, Northfield, Minn. Received August 5, 1932.

100942. PERSEA sp.

Collected at 5,500 feet altitude between Station Maria Dots and Estrella, Costa Rica.

100943. PERSEA sp.

The best native variety of *aguacuate*, from Estrella, Costa Rica, at 4,800 feet altitude.

100944. PERSEA sp.

A red fruit collected July 23, 1932, at Estrella, Costa Rica, at 5,000 feet altitude.

100945 to 100947. PHASEOLUS VULGARIS L. Fabaceae. Common bean.

From South America. Seeds collected by H. G. MacMillan and C. O. Erlanson, Bureau of Plant Industry. Received August 2, 1932.

Locally grown varieties.

100948 to 100950.

From Honduras. Plants presented by Wilson Popence, research department, United Fruit Co., Tela. Received August 6, 1932.

100948. GARCINIA MANGOSTANA L. Clusiaceae. Mangosteen.

100949. GUADUA ANGUSTIFOLIA Kunth. Poaceae.

A giant bamboo, 60 to 90 feet tall, which grows wild from Honduras to Paraguay. The slender

100948 to 100950—Continued.

foliage is of great beauty, comparing with that of ordinary trees as ostrich feathers do with goose quills. The hollow culm is up to 6 inches in diameter, with nodes as much as 20 inches apart, and the wood is sometimes nearly an inch thick. The branches are very thorny.

100950. MUSA PARADISIACA SAPIENTUM (L.) Kuntze. Musaceae. Banana.

A large commercial variety of good quality.

100951. SESAMUM CAPENSE Burm. f. Pedaliaceae.

From Africa. Seeds presented by Dr. I. B. Pole Evans, chief, Bureau of Plant Industry, Pretoria, Union of South Africa. Received August 4, 1932.

Collected on the Springbok Flats in the Transvaal, where the average annual rainfall is 4 inches. An erect simple or branched herbaceous plant up to 6 feet high, native to southern Africa. The leaves are palmately divided into 3 to 5 ovate to linear leaflets 1 to 3 inches long, and the tubular white flowers are 1 inch long; the lobes spread about 1 inch.

100952. WITHANIA SOMNIFERA (L.) Dunal. Solanaceae.

From Africa. Seeds presented by D. C. Edwards, Scott Agricultural Laboratories, Department of Agriculture, Nairobi, Kenya. Received August 4, 1932.

An erect much-branched shrub with round stems 3 to 4 feet high, native to tropical Africa and India. The oblong to obovate, slightly sinuate leaves are 2 to 3 inches long, and the small flowers, in axillary clusters, are followed by globose berrylike fruits one-fourth inch in diameter, surrounded by the inflated calyx. In India the powdered fruit is used as a vegetable rennet.

100953. PHASEOLUS LUNATUS L. Fabaceae. Lima bean.

From India. Seeds purchased through Winfield H. Scott, American consul, Rangoon, Burma. Received August 8, 1932.

*Burma butter*. A native variety largely grown in the vicinity of Rangoon. Introduced for comparison with types now being grown on the Pacific coast.

100954 to 100968. ANTIRRHINUM spp. Scrophulariaceae. Snapdragon.

From Germany. Seeds presented by Dr. Erwin Baur, Kaiser Wilhelm Institut für Züchtungsforschung, Münchenberg (Mark). Received August 5, 1932.

100954 and 100955. ANTIRRHINUM GLUTINOSUM Boiss. and Reut.

100956. ANTIRRHINUM HISPANICUM Chav.

100957. ANTIRRHINUM IBANJEZI Hort.

100958. ANTIRRHINUM LATIFOLIUM Mill.

100959 and 100960. ANTIRRHINUM MOLLE L.

100961. ANTIRRHINUM MEONANTHUM Hoffm. and Link.

100962. ANTIRRHINUM SICULUM Mill.

100963. ANTIRRHINUM TORTUOSUM Bosc.

100964. ANTIRRHINUM VALENTINUM Hort.

100965 to 100968. ANTIRRHINUM spp.

## 100969 to 100979.

From the Union of Soviet Socialist Republics. Seeds presented by the Institute of Plant Industry, Leningrad. Received August 8, 1932.

100969 to 100978. *CICER ARIETINUM* L. Fabaceae. Chickpea.

F.P.I.	Leningrad No.	F.P.I.	Leningrad No.
100969.....	114	100974.....	646
100970.....	160	100975.....	662
100971.....	283	100976.....	851
100972.....	449	100977.....	882
100973.....	596	100978.....	918

100979. *PRUNUS* sp. Amygdalaceae.

A cherry.

100980. *GLAUCOTHECA ARMATA* (S. Wats.) O. F. Cook. Phoenicaceae. Blue palm.

From Mexico. Seeds purchased from Howard E. Gates, Anaheim, Calif. Received August 9, 1932.

From the Rancho Catacifu, Baja California. A stout fan palm with a robust trunk up to 8 feet in diameter and 20 feet high, crowned by numerous glaucous-blue leaves nearly circular in outline and deeply cut into many segments. The flowers are dull purple.

100981 and 100982. *LEUCOCORYNE IXI-OIDES* (Sims) Lindl. Liliaceae.

From South America. Bulbs presented by Señor Salvador Izquierdo, Santiago, Chile. Received May 23, 1932. Numbered in August 1932.

*Huilla*. A bulbous plant with linear-convex leaves and green-violet flowers about an inch across, with yellow anthers on a scape 5 or 6 inches high. Native to Chile.

100981. A form with white flowers.

100982. A form with violet flowers.

100983 and 100984. *PHOENIX* spp. Phoenicaceae.

From England. Seeds presented by the curator of the Royal Botanic Gardens, Kew. Received August 9, 1932.

100983. *PHOENIX ACULIS* Buch.-Ham. Date palm.

For previous introduction and description see 100911.

100984. *PHOENIX RUPICOLA* T. Anders. Cliff date palm.

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 99748.

100985. (Undetermined.)

From Madagascar. Seeds collected by Rev. A. Burgess and presented by V. B. Stolee, St. Paul, Minn. Received July 14, 1932.

Of possible value as a source of rubber.

100986 to 100988. *CINCHONA* spp. Rubiaceae.

From India. Seeds purchased from Barnard & Co., Hindustan Nursery, Calcutta, through A. C. Frost, American consul-general, Calcutta. Received August 10, 1932.

Introduced for the use of Department specialists working with drug plants.

## 100986 to 100988—Continued.

100986. *CINCHONA LEDGERIANA* Moens.

A tree, native to the Andes, yielding a bark remarkably rich in quinine which crystallizes readily as quinine sulphate. The percentage of the other alkaloids present is relatively small. The bark of this species matures in the fifth or sixth year and does not increase its quinine content after that.

For previous introduction see 100114.

100987. *CINCHONA OFFICINALIS* L.

A small tree only 20 feet high, native to Peru and Ecuador in the high valleys of the Andes. It is now the most important species grown in the Nilgiri Hills in India.

For previous introduction see 100117.

100988. *CINCHONA SUCCRUBRA* Pavon.

The bark of this tree contains a large quantity of alkaloids, of which a relatively large percentage is cinchonidine, which retards the separation of the quinine as sulphate. The bark of this species matures in the fourth or fifth year and does not increase in quinine content thereafter.

For previous introduction see 100118.

100989. *MALUS SYLVESTRIS* Mill. (*Pyrus malus* L.). Malaceae. Apple.

From Canada. Budsticks presented by W. S. Blair, Experimental Farm, Kentville, Nova Scotia. Received August 15, 1932.

A red sport of the Gravenstein apple. Introduced for the use of Department specialists.

100990 and 100991. *SESAMUM* spp. Pedaliaceae. Sesame.

From Africa. Seeds presented by the director, Botanic Garden, Eala, Belgian Congo. Received August 11, 1932.

100990. *SESAMUM ORIENTALE* L.

A species possessing considerable drought resistance.

100991. *SESAMUM RADIATUM* Schum.

An erect-growing, oil-producing species.

## 100992 to 101002.

From the Canal Zone. Budsticks and plants presented by J. E. Higgins, Canal Zone Experiment Gardens, through Walter R. Lindsay, in charge. Received August 16, 1932.

100992. *ANNONA* sp. Annonaceae.

100993 to 101002. *PERSEA AMERICANA* Mill. Lauraceae. Avocado.

100993. *Cauters*: a seedling tree, brought from Haiti about 12 years ago and planted at Pedro Miguel. The red pyriform smooth fruits weigh up to a pound, the yellow buttery flesh is free from fiber and has a pleasant nutty flavor; the seed is large and loose in the cavity; and the fruit keeps well.

100994. *Enoi*: a seedling introduced from Honolulu, Hawaii. The smooth, light-green, pyriform fruits, 12 inches long, have a long, slightly curved neck; the light-yellow flesh is free from fiber and has a rich flavor. The seed is medium to large. This is not considered a good commercial variety on account of its large size and poor keeping qualities.

100995. *Gerrans*: a seedling probably of Haitian stock. The smooth, purple, oval fruits have smooth, fine-grained flesh, free from fiber and of excellent flavor, yellow near the seed but tinged to green near the rind. The small seed is loose in its cavity; the fruits weigh about a pound each, and their keeping quality is very good.

100992 to 101002—Continued. 220101

100996. *Halei*; a seedling of the Guatemalan race which was planted in Hawaii in 1913. The trees are prolific and produce fruit in clusters which ripen in November and December. The rough green fruits, with a slightly purplish tinge when fully ripe, have a thick tough skin, are oval to obovate in shape, 2 inches long by over 4 inches thick, and weigh up to 40 ounces. The flesh is creamy yellow, free from fiber, and of a rich nutty flavor. The seed is small to medium in size and fits tightly in the cavity.

100997. *Lupfer*; a seedling, probably of the Ecuadorian race. The small fruits, weighing up to a pound and a half, have slightly rough, thin, green skin and greenish flesh, free from fiber and of a very pleasing flavor.

100998. *Moomalua*; a seedling from Hawaii whose small fruits vary in shape from round to pyriform. The thick, hard, coriaceous, dark-green rind is pitted with small yellowish dots. The fine-grained, melting, somewhat buttery yellowish flesh is tinged to green near the rind. The medium large seed fits tightly in the cavity.

100999. *Nicaragua*.

101000. *San Clemente*.

101001. *Trinidad*. Plants brought from Trinidad.

101002. *Tumaco*. Plants received from Colombia in 1925 by Mr. Johansen.

101003. *DAMNACANTHUS INDICUS* Gaertn. f. *Rubiaceae*.

From Japan. Plants collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received March 26, 1930. Numbered in August 1932.

No. 4391. *Tuge*; a spiny evergreen shrub, native to India and Japan. The small, opposite, leathery leaves are broadly ovate, and the small, fragrant, axillary, white flowers are followed by coral-red berries which remain on the bush until the flowers of the next season appear.

101004 to 101007. *ESCALLONIA* spp. *Escalloniaceae*.

From England. Seeds presented by the director, Botanic Garden, University of Cambridge, Cambridge. Received August 19, 1932.

101004. *ESCALLONIA EXONIENSIS* Veitch.

A hybrid between *E. pterocladon* and *E. rubra*, which forms an evergreen shrub or small tree up to 20 feet high. The ovate, glossy green, serrate leaves are 1 to 2 inches long, and the small, white or rose-tinted flowers are produced from June to October in England.

101005. *ESCALLONIA FLORIBUNDA* H. B. K.

An evergreen shrub or small tree, native from Venezuela to Peru. The obovate, nearly entire leaves are 2 to 4 inches long, and the pure white flowers, one half inch across, are borne in compound panicles up to 9 inches long and have a fragrance like hawthorn.

101006. *ESCALLONIA MACRANTHA* Hook. and Arn.

For previous introduction and description see 100692.

101007. *ESCALLONIA PTEROCLADON* Hook.

A bushy evergreen shrub 4 to 8 feet high, native to Patagonia. The narrowly obovate leaves, 1 inch long, are slightly toothed, and the small white flowers are in slender racemes 1 to 3 inches long terminating the short leafy rigid twigs.

For previous introduction see 91817.

101008. *VERBENA* sp. *Verbenaceae*. *Verbain*.

From the British West Indies. Plants presented by the director of agriculture, Hope, Kingston, Jamaica. Received August 19, 1932.

Introduced for the use of Department specialists working with drug plants.

101009. *SACCHARUM OFFICINARUM* L. *Poaceae*. *Sugarcane*.

From South America. Cuttings presented by Dr. Cross, from the experiment station at Tucuman, Argentina. Received August 8, 1932.

A variety of cane which should prove excellent for Louisiana. Introduced for the use of Department specialists.

101010. *MANGIFERA INDICA* L. *Anacardiaceae*. *Mango*.

From Puerto Rico. Budwood presented by Edmund H. Twight, specialist in fruits, Insular Experiment Station, Rio Piedras. Received August 20, 1932.

Introduced for the use of Department specialists working with fruit breedings.

101011. *ERYTHRINA POEPPIGIANA* (Walp.) O. F. Cook (*E. micropteryx* Poepp.). *Fabaceae*.

From the West Indies. Seed presented by E. J. H. Thomas, Charlotteville, Tobago, Windward Islands. Received August 17, 1932.

*Mountain immortelle*; a handsome, tender, leguminous tree with red flowers, native to Peru.

101012. *LONCHOCARPUS* sp. *Fabaceae*.

From the West Indies. Seeds presented by E. J. H. Thomas, Charlotteville, Tobago Island, through David Fairchild. Received August 17, 1932.

*Black Mahoe*; an attractive leguminous tree which may be useful as a street tree.

101013. *ALCHORNEA CORDIFOLIA* (Schum.) Muell. Arg. *Euphorbiaceae*.

From Cuba. Cuttings presented by Dr. Robert M. Grey, superintendent, Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos. Received August 22, 1932.

*Christmas bush*; so called because of the long pendent spikes of brilliant red berries produced at Christmas time. It is an ornamental tropical shrub native to western Africa.

101014 to 101018. *ORYZA SATIVA* L. *Poaceae*. *Rice*.

From South America. Seeds presented by J. Sydney Dash, director, Department of Agriculture, Georgetown, Demerara, British Guiana. Received August 17, 1932.

A collection of locally grown, long-grained varieties.

101014. *Demerara Creole*. 101017. No. 75.

101015. *Blue Stick*. 101018. No. 79.

101016. No. H 7.

101019 to 101023. *AVENA* spp. *Poaceae*. *Oats*.

From Africa. Seeds presented by the Stellenbosch-Elsenburg College of Agriculture, University of Stellenbosch, Union of South Africa. Received August 25, 1932.

A collection of oat varieties introduced for the use of Department specialists.

## 101019 to 101023—Continued.

- 101019 to 101023. AVENA BYZANTINA Koch.  
 101019. Boer. 101021. *Sidomian*.  
 101020. *River Platte*. 101022. *Smyrna*.  
 101023. AVENA BYZANTINA X SATIVA.  
*Langgevans*.

## 101024 to 101026.

From Cuba. Seeds presented by Dr. Robert M. Grey, superintendent, Atkins Institution of the Arnold Arboretum, Boledad, Cienfuegos. Received August 22, 1932.

101024. CORDIA LEUCOSEBESTENA Griseb. Boraginaceae.

A Cuban tree with small, rounded-obtuse leaves and white flowers in corymblike cymes.

101025. ESPADAEA AMOENA A. Rich. Solanaceae.

A tree, native to Cuba, very common along the seacoast. The black and yellow wood is very hard and durable, and the fruits are small and bright yellow.

101026. MALPIGHEIA URENS L. Malpighiaceae.

A shrub 5 to 15 feet high, native to the West Indies. The elliptical leaves, 1 to 5 inches long, have lines of stringlike hairs beneath, and the umbels of small purple flowers are followed by purple berries about one-half inch in diameter.

## 101027. ANDROPOGON AMBOINICUS (L.) Merr. Poaceae. Grass.

From Australia. Seeds presented by the agronomist, Department of Agriculture, Sydney, New South Wales. Received August 23, 1932.

A tall, perennial, East Indian grass, about 4 feet high, with narrowly linear leaves up to 20 inches in length. It is of possible value as a forage grass.

## 101028 to 101057. SACCHARUM OFFICINARUM L. Poaceae. Sugarcane.

From Hawaii. Cuttings presented by the experiment station of the Hawaiian Sugar Planters' Association, Honolulu. Received August 30, 1932.

- |                                     |                              |       |
|-------------------------------------|------------------------------|-------|
| 101028. <i>Akilolo</i> .            | 101044. <i>Molakai</i>       | no.   |
|                                     |                              | 1194. |
| 101029. <i>Auela</i> .              | 101045. <i>Molakai</i>       | no.   |
|                                     |                              | 1231. |
| 101030. <i>Halalii</i> .            | 101046. <i>Molakai</i>       | no.   |
|                                     |                              | 1338. |
| 101031. <i>Hinahina</i> .           | 101047. <i>Molakai</i>       | no.   |
|                                     |                              | 1395. |
| 101032. <i>Iiopua</i> .             | 101048. <i>Opukea</i> .      |       |
| 101033. <i>Kea</i> .                | 101049. <i>Parkaweli</i> .   |       |
| 101034. <i>Lahi</i> (pink striped). | 101050. <i>Pohina</i> .      |       |
| 101035. <i>Lahu</i> .               | 101051. <i>Uahi-a-Pele</i> . |       |
| 101036. <i>Lehu</i> .               | 101052. U B 1.               |       |
| 101037. <i>Laukona</i> .            | 101053. U B 14.              |       |
| 101038. <i>Maikaiko</i> .           | 101054. U D 75.              |       |
| 101039. <i>Maikaiko</i> (striped).  | 101055. <i>Udio</i> .        |       |
| 101040. <i>Manulele</i> .           | 101056. U H 3.               |       |
| 101041. <i>Mikioi</i> .             | 101057. 29-3458.             |       |
| 101042. <i>Moano</i> .              |                              |       |
| 101043. <i>Molakai</i>              | no.                          |       |
|                                     |                              | 1191. |

## 101058. GOSSYPIUM BARBADENSE L. Malvaceae. Cotton.

From Egypt. Seeds presented by the Department of Agriculture, Giza, through André Cattani,

## 101058—Continued.

attaché, Royal Egyptian Legation, Washington, D.C. Received August 27, 1932.

Giza No. 3.

Introduced for the use of Department specialists.

## 101059 to 101062. PHASEOLUS LUNATUS L. Fabaceae. Lima bean.

From the Netherland East Indies. Seeds presented by A. M. Cramer, Wonosobo, Java. Received August 26, 1932.

A collection of lima beans, introduced for comparison with types now being grown on the Pacific coast.

In Java the lima bean bears for several years and then dies down to the ground, but later it sprouts from the old roots and becomes as vigorous as before. The beans are used both fresh and dried.

101059. A dark-tan bean heavily marked with black.

101060. A dark-tan bean with scattered black markings.

101061. A light-tan bean.

101062. A dark-tan bean.

## 101063. WARIONIA SAHARAE Benth. and Coss. Asteraceae.

From Africa. Seeds presented by H. Brayard, Directeur de la Ferme Experimentale, Marrakech, Morocco. Received August 29, 1932.

A striking tree composite, native to the Sahara Desert of western Algeria and Morocco, which becomes more than 10 feet high and bears great yellow flowers which are almost as large as those of the artichoke.

## 101064. CINCHONA CALISAYA Wedd. Rubiaceae.

From British India. Seeds purchased from the Chandra Nursery, Rhenock, Sikkim State, Bengal. Received August 29, 1932.

A tropical shrub with opposite, oblong or oblong-lanceolate, shining green leaves, and terminal panicles of small white and pink flowers. It is one of the sources of quinine and is native to Bolivia.

## 101065 to 101074.

From the Union of Soviet Socialist Republics. Seeds presented by the chief of the Bureau of Introduction, Institute of Plant Industry, Leningrad. Received August 29, 1932.

101065. EUCALYPTUS CINEBEA F. Muell. Myrtaceae.

No. 140714. *Silver stringybark*. A moderate-sized Australian tree with white-brown bark, opposite cordate leaves 2 to 4 inches long, and terminal corymbs of small flowers followed by small subglobose fruits.

101066. EUCALYPTUS URNIGERA Hook. f. Myrtaceae.

No. 140715. A tall shapely tree, native to the mountains of Tasmania, and said to be one of the hardest of the eucalypts. The pale-yellow flowers in clusters of three are followed by urn-shaped capsules.

101067 to 101074. PARTHENIUM ARGENTATUM A. Gray. Asteraceae. Guayule.

A spreading much-branched subtropical shrub, rarely 3 feet high, with small, silvery green-gray leaves and a profusion of small yellow flowers borne in loose clusters on slender stems. The shrub is native to a comparatively small area in southwestern Texas and northern Mexico. The dried plants are ground, and the rubber is extracted by chemical processes.

101065 to 101074—Continued.

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|---------------------|---------------------|
| 101067. No. 140719. | 101071. No. 140723. |
| 101068. No. 140720. | 101072. No. 140724. |
| 101069. No. 140721. | 101073. No. 140725. |
| 101070. No. 140722. | 101074. No. 140726. |

101075. *SESAMUM ORIENTALE* L.  
Pedaliaceae. Sesame.

From Africa. Seeds presented by the director of the Botanic Garden, Eala, Belgian Congo. Received August 30, 1932.

Introduced for breeding investigations being carried on by Department specialists.

101076. *SASA VEITCHII* (Carr.) Rehder.  
Poaceae. Bamboo.

From New Jersey. Plants presented by W. A. Manda, South Orange. Received September 1, 1932.

A large-leaved, shade-loving bamboo of running habit which grows to a maximum height of 24 feet. The leaves, usually five to a branch, are up to 7 inches long by 1½ inches wide. In autumn they have the peculiar habit of drying out and bleaching in a rather narrow and regular strip around the margin, which gave rise to one of the specific synonyms, *albo-marginata*.

101077. *CASSIA GRANDIS* L. f. Caesalpiniaceae. Pink-shower.

From Cuba. Seeds collected at the Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos, by T. A. Fennell, Bureau of Plant Industry. Received May 9, 1930. Numbered in August 1932.

A leguminous tree that produces masses of pale-pink flowers in the early spring, before the leaves appear. It is adapted for park and garden work in Florida where *Cassia fistula* and others of the genus have done well.

101078 to 101080.

From Africa. Seeds presented by Moses Albert Azancot, Tangier, Morocco. Received September 1, 1932.

101078. *COUSINIA* sp. Asteraceae.

*Taimat*. A prickly leaved thistlelike plant growing wild around wheat fields. The flower buds are boiled in salted water and eaten, tasting something like asparagus. The uncooked juice of the plant is used with apparent success as a substitute for rennet by the local cheese manufacturers of Tangier.

101079. *VICIA FABA* L. Fabaceae. Broadbean.

A small bean used in Morocco as feed for cattle and goats. They are sown broadcast.

101080. *SCOLYMUS* sp. Cichoriaceae.

*Tagarneema*. A wild plant used by the natives as a vegetable.

101081. *AMYGDALUS PERSICA* L. Amygdalaceae. Peach.

From Africa. Scions presented by O. S. H. Reincke, Department of Pomology, College of Agriculture, Stellenbosch, Union of South Africa. Received September 8, 1932.

*Inkoo*, an early, white-fleshed, freestone peach which originated in South Africa and is said to withstand warm weather during a normal cold winter.

For previous introduction see 93826.

101082 and 101083.

From South America. Seeds from Surinam, presented through David Fairchild. Received September 1, 1932.

101082 and 101083—Continued.

101082. *EUTERPE OLERACEA* Mart. Phoenicaceae. Palm.

*Manac* or *manaque*: a tall graceful forest palm with a trunk seldom more than 4 inches in diameter. The pinnate leaves droop gracefully and the tree is found singly, not in clusters. It is said that fats suitable for oils and soaps can be derived from the blue-black, berrylike fruits.

For previous introduction see 99567.

101083. *RAVENALA GUYANENSIS* Steud. Musaceae.

There are only two species of this genus, one in Madagascar and the other in tropical South America. This species is not so large as the Madagascar one, but it rises to a height of 25 feet, making a fanlike head. Its enormous flower spike is 9 feet long and as much as a man can carry. Unlike the Madagascar species, the seeds of which have a deep-blue aril, the seeds of this have an orange aril.

For previous introduction see 98880.

101084. *ARALIA CHINENSIS* L. Araliaceae. Chinese aralia.

From Washington, D.C. Seeds collected by Paul Russell in the park west of the Department of Commerce Building. Received September 12, 1932.

A tall shrub up to 25 feet high, native to China, with bipinnate leaves made up of ovate, closely serrate leaflets 2 to 4 inches long and panicles of small white flowers followed by small black fruits. While the typical form has prickly stems, this plant is absolutely unarmed.

For previous introduction see 93878.

101085 to 101090.

From Africa. Seeds presented by Alfred Bircher, Middle Egypt Botanic Station, El Saff, Egypt. Received September 8, 1932.

101085. *DOVYALIS CAFFRA* (Hook. and Harv.) Warb. (*Aberia caffra* Hook. and Harv.). Flacourtiaceae. Kei-apple.

A very prickly shrub or small tree, native to tropical Africa, where it is used as a hedge. The pale-green leaves are over an inch long and nearly an inch wide. The edible fruit resembles a small yellow apple and is so exceedingly acid when fresh that it is said to be used as pickles without adding vinegar.

For previous introduction see 99415.

101086. *DOVYALIS MACROCALYX* (Oliver) Warb. Flacourtiaceae.

A small tree native to Angola, Africa. The thinly coriaceous leaves, 2 to 3 inches long, are elliptical to ovate, and the inconspicuous flowers, in small axillary clusters, are followed by orange-scarlet ovoid berries one half inch long. The fruit is surrounded by the persistent calyx which is fimbriate-ciliate with slender capitate glandular hairs.

101087. *EUGENIA FUNGENS* Berg. Myrtaceae. Guabiyu.

A bush native to South America, with pungent leaves and myrtlelike flowers. The black fruits, generally in pairs, are about an inch across and contain a sweet yellow flesh, enclosing 1 or 2 large green seeds.

101088. *GREWIA TILIAEFOLIA* Vahl. Tiliaceae.

A small tree, native to India and tropical Africa, with purple branchlets and dentate, obliquely cordate leaves 4 inches long. The small flowers are in axillary clusters and the 1- to 4-lobed black fruits, about the size of small peas, are eaten by the natives.

## 101085 to 101090—Continued.

101089. *MADHUCA INDICA* Gmel. (*Bassia latifolia* Roxb.). Sapotaceae. Mahwa.

A tree, native to India, with a short trunk and many spreading branches, forming a dense rounded crown 40 to 50 feet high. The flowers have a velvety chocolate-colored calyx and a pale-cream colored corolla with thick juicy petals which are used as food.

101090. *SORINDEIA JUGLANDIFOLIA* (Rich.) Planch. Anacardiaceae.

A glabrous shrub or small tree, native to tropical Africa. The unequally pinnate leaves are made up of 7 to 11 oblong-elliptical coriaceous leaflets 2 to 4 inches long, and the inconspicuous flowers are followed by fleshy fruits that are said to be eaten by the natives.

101091. *BAUHINIA MALABARICA* Roxb. Caesalpiniaceae.

From French Indo-China. Seeds presented by M. Poilane, Institut des Recherches Agronomiques de l'Indochine, Division de Botanique, Tonkin. Received September 9, 1932.

A small, erect, bushy tree, native to southeastern Asia, with thick rigid deeply bifid somewhat heart-shaped leaves 2 to 3 inches long. The small white flowers are in dense sessile axillary clusters. The rather turgid straight firm narrow pods are a foot long.

For previous introduction see 94181.

101092. *AGASTACHE RUPESTRIS* (Greene) Standl. Menthaceae.

From Arizona. Seeds collected near Payson by Mrs. W. B. Collom and presented by W. R. Maxon, Smithsonian Institution, Washington, D.C. Received September 12, 1932.

An aromatic perennial herb 1 to 3 feet high, native to the mountains of southwestern New Mexico. The linear-lanceolate entire leaves are about 2 inches long, and the greenish, red-purple tubular flowers, 1 inch long, are borne in loose panicles.

101093. *PERSEA AMERICANA* Mill. Lauraceae. Avocado.

From Mexico. Plants raised from seed obtained in Mexico by A. G. Galloway, Bureau of Plant Quarantine. Received September 9, 1932.

A collection of thin-skinned types.

101094. *PHOENIX HANCEANA* Naudin. Phoenicaceae. Date palm.

From England. Seeds presented by the Royal Botanic Gardens, Kew. Received September 7, 1932.

A Chinese relative of the date palm; it has short tufted stems and pinnate foliage.

101095. *ARUNDINARIA* sp. Poaceae. Bamboo.

From Japan. Seeds purchased from T. Sakata & Co., Yokohama. Received September 13, 1932.

Received as *Bambusa china*.

101096 to 101100. *AMYGDALUS COMMUNIS* L. Amygdalaceae. Almond.

From Africa. Seeds presented by J. B. Plessis, Chef du Jardin d'Essais, Sfax, Tunisia. Received September 15, 1932.

A collection of almonds from trees in the Botanical Garden of Sfax.

101096. *Abiod*.

101097. *Constantini*.

## 101096 to 101100—Continued.

101098. *Grosse Tendre*.

101099. *Guernatzel Corne de Gazelle*.

101100. *Zaaf*.

## 101101 to 101108.

From New Zealand. Seeds presented by J. W. Hadfield, agronomist, Fields Division and Plant Research Station, Department of Agriculture, Palmerston North. Received September 16, 1932.

A collection of New Zealand-grown certified pasture seeds, introduced for comparison with varieties and strains generally used in this country.

101101. *AGROSTIS TENUIS* Sibth. Poaceae. Brown top.

For previous introduction see 100232.

101102 and 101103. *DACTYLIS GLOMERATA* L. Poaceae. Orchard grass.

*New Zealand cocksfoot*, a permanent pasture grass.

101104 and 101105. *LOLIUM PERENNE* L. Poaceae. Perennial ryegrass.

101104. Certified mother seed.

101105. Permanent pasture seed.

101106. *TRIFOLIUM PRATENSE* L. Fabaceae. Red clover.

*New Zealand certified Montgomery Late*.

101107 and 101108. *TRIFOLIUM REPENS* L. Fabaceae. White clover.

101107. Certified mother seed.

101108. Certified permanent pasture seed.

101109. *SCHISMOCARPUS PACHYPUS* Blake. Loasaceae.

From Mexico. Plants collected by G. N. Collins and J. H. Kempton, with the Allison V. Armour expedition to Mexico and the West Indies, 1931. Received April 15, 1931. Numbered in September 1932.

No. 9192. A rather fleshy, herbaceous perennial about 20 inches high, with a tuberous root about 3 inches in diameter, alternate ovate leaves, and a terminal panicle of rather large yellow flowers. Native to Oaxaca, Mexico.

101110 and 101111. *FRAGARIA* spp. Rosaceae. Strawberry.

From Germany. Plants presented by Karl Lüpke, Lemgo in Lippe. Received September 20, 1932.

101110. *FRAGARIA* sp.

*Deutsch Ebern*.

101111. *FRAGARIA* sp.

*Oleeschlesien*.

101112 to 101114. *ALLIUM* spp. Liliaceae.

From China. Seeds and bulbs presented by Tai Yih Wang, of the Sun Yat Sen Memorial Park Commission. Received September 20, 1932.

101112 and 101113. *ALLIUM CEPA* L. Onion.

*Australia-Brown*: the variety most commonly grown in this region was introduced and distributed by the University of Nanking about 20 years ago.

101112. Seed collected in the Sun Yat Sen Memorial Park.

101113. Seed collected from farmers.



101112 to 101114.—*Conthiude* 941101

101114. *ALBIUM SATIVUM* L. *Conthiude*.

Bulbs collected in the Sun Yat Sen Memorial Park.

101115 to 101130. *SACCHARUM OFFICINARUM* L. Poaceae. Sugarcane.

From Cuba. Cuttings presented by Charles H. Thrall, Club Azucarero de Cuba, Havana. Received September 22, 1932.

101115. *Bamboo Blanca*.

101116. *Batjan*.

101117. *Batjan Green sport*.

101118. *Bocoyo*.

101119. *Bravade Perico*.

101120. *H-208*.

101121. *Green Stripe Preanger*.

101122. *Negrita*.

101123. *Puntha*.

101124. *Red Preanger*.

101125. *Red Tip*.

101126. *Striped sport of P.O.J. 2714*.

101127. *Tibboo Mirid*.

101128. *Uba Natal*.

101129. *Yellow Bamboo*.

101130. *Yellow Tip*.

101131 to 101134.

From Cuba. Seeds presented by Robert M. Grey, superintendent, Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos. Received September 16, 1932.

101131. *ARIKURYROBA SCHIZOPHYLLA* (Mart.) Bailey (*Cocos schizophylla* Mart.). Phoenicaceae. Palm.

A slender, straight-stemmed palm with pinnate leaves.

For previous introduction see 91775.

101132. *ARISTOLOCHIA OBLONGATA* Jacq. Aristolochiaceae.

A tropical climber, native to Venezuela, with oblong, cordate, obtuse, dull-green leaves 1 to 2 inches long and odorless pale-yellow flowers about 4 inches long.

101133. *CLUSIA MINOR* L. Clusiaceae.

A tropical American tree 25 feet high, often starting as an epiphyte, with thick obovate leaves 4 to 6 inches long and axillary solitary showy pink flowers.

101134. *KOPSIA FRUTICOSA* (Ker) A.D.C. Apocynaceae.

A large evergreen shrub with elliptic leaves 4 to 8 inches long. The flowers, over an inch long and 2 inches across, have pink corolla tubes with red mouths and grow in cymes. The pyriform fruits, 1 inch long, are greenish purple. It is native to Burma.

101135 to 101138. *ELAEIS GUINEENSIS* Jacq. Phoenicaceae. African oil palm.

From Africa. Seeds presented by Laurentino Pereira Coelho, Chefe da Divisão Técnica dos Serviços Agrícolas, Luanda, Angola. Received September 22, 1932.

101135. *Difumbe*. 101137. *Dissombo*.

101136. *Diholo*. 101138. *Ussu*.

101139. *Diospyros* *subcolor*: *Wirdi* Diospyraceae. *Mabolo*.

From Hawaii. Seeds presented by W. T. Pope, senior horticulturist, Agricultural Experiment Station, United States Department of Agriculture, Honojulu. Received September 19, 1932.

A medium-sized Philippine tree of vigorous growth, with shining leaves 5 to 10 inches long, pubescent beneath. The velvety dull-red, thin-skinned fruits, 3 inches long and nearly 4 inches in diameter, have firm, rather dry sweet flesh of a rather indefinite flavor and 4 to 8 large seeds. Notwithstanding its size and attractive appearance, it has never gained favor with Europeans, although very popular with the natives.

For previous introduction see 95086.

101140 to 101143.

From Manchuria. Seeds collected by L. Ptitin. Received September 20, 1932.

A collection of fodder grasses collected on the Manchurian prairie grasslands between Anda and Harbin. Introduced for the use of Department specialists.

101140. *AGROPTON STRIGOSUM* (Bieb.) Boiss. Poaceae. Grass.

101141. *GLYCEBIA REMOTA JAPONICA* Hack. Poaceae. Grass.

101142. *POA COMPRESSA* L. Poaceae. Canada bluegrass.

101143. *POA PRATENSIS* L. Poaceae. Kentucky bluegrass.

101144 and 101145.

From India. Seeds presented by the Agri-Horticultural Society of India, Calcutta. Received September 22, 1932.

101144. *PHOENIX RECLINATA* Jacq. Phoenicaceae. Senegal date palm.

A tropical and South African date palm, 20 to 30 feet high, with green reclinate pinnate leaves 6 to 9 feet long, with rigid leaflets and yellowish fruits half an inch long having a sweetish pulp.

For previous introduction see 100105.

101145. *PHOENIX SYLVESTRIS* (L.) Roxb. Phoenicaceae. India date palm.

A pinnate-leaved palm, 25 to 40 feet high, with leaves about 15 feet long and orange-yellow fruits. Native to India.

101146 to 101155.

From New Zealand. Seeds presented by A. Wilkinson, secretary, New Zealand Alpine and Rock Garden Society, Nelson. Received September 27, 1932.

101146. *GENTIANA CORYMBIFERA* T. Kirk. Gentianaceae. Gentian.

A perennial herb with usually simple stems 6 to 20 inches high, native to New Zealand. The radical leaves, 2 to 4 inches long, are oblong-spatulate, and the stem leaves, 1 to 2 inches long, are linear-lanceolate. The large white flowers, nearly an inch across, are borne in large compact terminal umbels 2 to 6 inches in diameter.

101147. *IXERBA BREXIODES* A. Cunn. Escalloniaceae.

*Tawari*. A beautiful evergreen tree sometimes 70 feet tall, with thick, leathery, coarsely serrate leaves 3 to 7 inches long and very handsome waxy white flowers over an inch wide, occurring in flat panicles. In New Zealand, where it is not common, it is considered by some to be the most beautiful tree indigenous to that country.

## 101146 to 101155—Continued.

101146. *NOTOSPARTIUM CARMICHAELIAN* Hook. f. Fabaceae.

*Pink broom.* A beautiful, moderate-sized, leguminous shrub with leafless, broomlike branches on which the short racemes of pink or purplish flowers are freely produced. It is native to New Zealand.

101149. *OLEARIA MACRODONTA* Baker. Asteraceae.

A shrub or small tree, up to 20 feet high, native to New Zealand. The rigid, coriaceous, ovate, or oblong leaves, 2 to 4 inches long, are glabrous above and covered beneath with closely appressed white tomentum. The small heads of whitish or reddish flowers are borne in large much-branched corymbs.

101150. *PITTIOSPORUM DALLII* Cheeseman. Pittosporaceae.

A round-topped tree up to 18 feet high, native to New Zealand, with sharply toothed, oblong, leathery leaves 2 to 4 inches long and dense, terminal, compound clusters of fragrant white flowers half an inch broad.

101151. *RHOPALOSTYLIS SAPIDA* (Soland.) Wendl. and Drude. Phoenicaceae. Mikán palm.

A New Zealand palm 30 feet high, with a green-ringed stem, pinnate leaves 14 feet long, and large clusters of pale-pink flowers.

101152. *RUBUS SCHMIDELIOIDES* A. Cunn. Rosaceae.

A scrambling or climbing shrub native to New Zealand. The 3- to 5-foliate leaves have coriaceous, broadly cordate-serrate leaflets 2 to 4 inches long, and the small white flowers, in panicles 2 to 8 inches long, are followed by pale-yellow edible fruits about one-third inch in diameter.

## 101146 to 101155—Continued.

101153. *SENECIO CRUSTII* Hort. Asteraceae.

A name for which a place of publication and a description have not been found.

101154. *SENECIO FERDICIROIDES* Hook. f. Asteraceae.

A round-topped New Zealand shrub 2 to 6 feet high, with toothed oblong leaves 2 inches long and leafy corymbs of top-shaped yellow flower heads.

101155. *SOPHORA PROSTRATA* J. Buch. Fabaceae.

A rigid much-branched shrub 2 to 5 feet high, native to New Zealand. The compound leaves are made up of 2 to 4 pairs of very small oblong-ovate leaflets, and the bright-yellow flowers, nearly an inch long, are in clusters of 2 to 3, or solitary.

101156. *ANNONA RETICULATA* L. Annonaceae. Custard-apple.

From India. Seeds presented by Rev. A. L. Grey, superintendent, Sind-Baluchistan District, Methodist Episcopal Church, Karachi. Received September 29, 1932.

*Sita Phal*, or custard-apple. An excellent local variety.

101157. *PHASEOLUS VULGARIS* L. Fabaceae. Common bean.

From Oslo, Norway. Seeds collected by W. E. Whitehouse, Bureau of Plant Industry. Received September 20, 1932.

Introduced for the use of Department specialists.

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