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INVENTORY No. 103



Washington, D. C.

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PLANT MATERIAL INTRODUCED BY THE DIVISION OF FOREIGN PLANT INTRODUCTION, BUREAU OF PLANT INDUSTRY, APRIL 1 TO JUNE 30, 1930 (Nos. 86756-88432)

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INTRODUCTORY STATEMENT

This present inventory of plant material received between April 1 and June 30, 1930 (Nos. 86756-88432), is preeminently a forage-crop and cereal inventory,

The agricultural explorers, P. H. Dorsett and W. J. Morse, were in the Orient during this period and sent in 1,188 introductions, including over 500 strains of soybeans. They found that millet (*Chaetochloa italica*, Nos. 87645-87702) and Japanese millet (*Echinochloa crusgalli edulis*, Nos. 87703-87718) are much used by the Chinese, as well as buckwheat, hemp, rye, and barley. Wheat and corn are also important crops in China, but oats are not much grown. Samples of all these cereals have been sent in. Peas, cowpeas, and all kinds of beans are used for food in northern China as rice is used in Japan. Three Lespedezas (Nos. 88315-88317) are useful both as forage and as ornamentals. Native varieties of cotton (*Gossypium hirsutum*, Nos. 87736 and 87737, and *G. nanking*, Nos. 87738-87742) were collected by them in Chosen.

For the help of specialists who are working to improve rice (*Oryza sativa*) in this country there were received through F. A. McClure 13 strains (Nos. 87124-87137) from C. H. Heh, head of the Department of Agronomy, College of Agriculture and Forestry, Nanking, China, and 22 strains (Nos. 87408-87430) from Koo Kwai Fan, in charge of farm crops, Lingnan University, Canton, China; also two strains (Nos. 87478 and 87479) from Rev. William Harris, The Prince Royal's College, Chlengmai, Siam, and 11 strains (Nos. 88331-88342) from S. G. Sharngapani, Economic Botanist of the Government of Bengal, Dacca, Bengal, India, also 145 strains (Nos. 87107-87113, 87201-87280, 87845-87905) sent in by the department explorers, Messrs. Dorsett and Morse.

H. L. Westover during this time was traveling through Europe in search of alfalfas and sent in 21 strains (*Medicago sativa*, Nos. 86767-86776, 86786 and 86787, 87390-87392, 87488-87488), besides seeds of melons, wheat, and corn.

H. N. Vinal sent from Porto Rico and Cuba cover and forage crops (Nos. 87462-87465, 88185-88188) to be tested in this country.

For the use of department specialists working to improve the potato (*Solanum tuberosum*), tubers were received from Ayr, Scotland (Nos. 87470-87473, 87481 and 87482), from the Plant Breeding Station, Moscow, Union of Socialistic Soviet Republics (Nos. 88189-88193), and from Peru (Nos. 86777-86781).

David Fairchild sent from Italy scions of two varieties of orange (*Citrus sinensis*, Nos. 88418 and 88419), one of which may be left on the tree a year and still retain its juiciness.

Dr. H. S. Fawcett sent scions of *Citrus aurantifolia* (No. 86833), *C. nobilis deliciosa* (No. 87401), and *C. aurantium* (No. 87431) from Cairo, Egypt.

Through Prof. Frederic F. Bioletti, of the University of California, Mr. Thauvin, Inspector of Agriculture, Mekinez, Morocco, Africa, presented cuttings of olives (*Olea europaea*, Nos. 87439-87445).

From the Forest Experiment Station at Sukhoun, Caucasus, Union of Socialist Soviet Republics, were received seeds of wild almonds, peaches, pistachio, apricots, plums, and pomegranates (Nos. 88094-88103) collected in the Kopet Dag Mountains. These will be used in the plant-breeding work by the department specialists.

T. A. Fennell, in a visit to the Harvard Botanic Garden at Soledad, Sancti Spiritus, Cuba, found many trees and ornamentals not commonly grown in the United States, and sent seeds and cuttings (Nos. 87497-87519, 88105-88139).

From Dr. A. W. Hill, Director of the Royal Botanic Gardens, Kew, England, a shipment of ornamentals (*Rhododendron* spp., Nos. 86758-86763) and lilacs (*Syringa* spp., Nos. 86764-86766) was received.

The return to favor of the old-fashioned rock garden has created a demand for ornamentals that can be used to advantage in such situations. A shipment of *Kalanchoe* spp. (Nos. 86824-86828), from the Director of the Botanic Garden, Stockholm, Sweden, will be grown for this purpose.

For the help of specialists who are working with rubber-producing plants, seeds have been received from the Botanic Garden, Eala, Belgian Congo (Nos. 87385-87387), from Fort Dauphin, Madagascar (No. 87384), and from Hope Gardens, Jamaica (No. 88372).

The botanical determinations of these introductions have been made and the nomenclature determined by H. C. Skeels, who has had general supervision of this inventory.

KNOWLES A. RYERSON,
Principal Horticulturist, in Charge.

DIVISION OF FOREIGN PLANT INTRODUCTION,
Washington, D. C., June 19, 1931.

INVENTORY¹

86756 to 86766.

From England. Seeds presented by Dr. A. W. Hill, Director, Royal Botanic Gardens, Kew. Received April 1, 1930.

86756. ONONIS BIFLORA Desf. Fabaceae.

A leguminous plant with trifoliolate leaves having oblong serrate leaflets and longitudinally striped yellow flowers borne in pairs. It is native to southern Europe.

86757. ONONIS RECLINATA L. Fabaceae.

An upright or sometimes prostrate branched annual, up to 10 inches high, with small trifoliolate leaves and small purplish flowers. Native to dry sandy situations, especially along the coast in the Mediterranean regions.

86758 to 86763. RHODODENDRON spp. Ericaceae.

86758. RHODODENDRON AMBIGUUM Hemsl.

A low Chinese evergreen species with lanceolate leaves 2 to 3 inches long, and flowers, pale yellow spotted with greenish yellow, 2 inches across.

For previous introduction see No. 77015.

86759. RHODODENDRON DECORUM Franch.

A western Chinese evergreen species with glabrous leaves, glaucous beneath, and broadly bell-shaped white or pink flowers 2 inches across.

For previous introduction see No. 79041.

86760. RHODODENDRON DISCOLOR Franch.

A tall evergreen shrub 15 to 20 feet high with yellowish branchlets, elliptic to lanceolate glabrous leaves, dark green above and whitish beneath. The white to pale-pink funnelform-campanulate flowers are 2 to 3 inches across. The shrub is native to central China.

86756 to 86766—Continued.

86761. RHODODENDRON RACEMOSUM Franch. Mayflower rhododendron.

An upright Chinese shrub up to 6 feet high, with scaly branchlets, elliptic to obovate leaves which are glabrous above and glaucous beneath, and few-flowered clusters of pink flowers, so abundantly produced as to completely cover the plant.

For previous introduction see No. 77018.

86762. RHODODENDRON RUBIGINOSUM Franch.

A rigid evergreen shrub about 3 feet high with ovate to lanceolate leaves 2 to 3 inches long and densely covered with brownish red scales beneath. The broadly funnelform bright rose-red flowers, 1 to 2 inches across, are in few-flowered clusters. It is native to central China.

86763. RHODODENDRON CONCINNUM Hemsl.

A western Chinese shrub about 10 feet high, with oval-elliptic leaves and small clusters of purple, sometimes white, funnel-shaped flowers.

For previous introduction see No. 66603.

86764 to 86766. SYRINGA spp. Oleaceae. Lilac.

86764. SYRINGA PALIBINIANA Nakai.

A shrub native to Chosen, about 10 feet high, with slender upright branches, elliptic leaves 1 to 3 inches long, and loose panicles of pale-lilac or whitish flowers.

For previous introduction see No. 76600.

¹ It should be understood that the names of horticultural 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 in this country. As the different varieties are studied, their entrance into the American trade forecast, and the use of varietal names for them in American literature becomes necessary, the foreign varietal designations appearing in this inventory will be subject to change with a view to bringing the forms of the names into harmony with recognized horticultural nomenclature.

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

86756 to 86766—Continued.

86765. SYRINGA PINETORUM W. W. Smith.

A shrub related to *S. microphylla*, about 10 feet high with densely pilose branchlets, ovate to ovate-lanceolate leaves 2 to 4 inches long, and purplish flowers in panicles about 9 inches long. It is native to south-western China.

For previous introduction see No. 79050.

86766. SYRINGA TOMENTELLA Bureau and Franch. Felty lilac.

A recently introduced bushy shrub similar to *S. wilsonii*, about 10 feet high, with elliptic leaves which are hairy beneath, and long-branched spikes of fine mauve-pink flowers. This shrub is native to western China.

For previous introduction see No. 78159.

86767. MEDICAGO SATIVA L. Fabaceae. Alfalfa.

From Valence-sur-Rhone, France. Seeds presented by Tezier Freres, through H. L. Westover, agricultural explorer, Bureau of Plant Industry. Received April 2, 1930.

Luzerne.

86768 to 86776. MEDICAGO SATIVA L. Fabaceae. Alfalfa.

From Prague, Czechoslovakia. Seeds presented by the Kooperativa, Einkaufsverband der Landwirtschaftl. Genossenschaften, through H. L. Westover, agricultural explorer, Bureau of Plant Industry. Received April 2, 1930.

Received in separate packets, but without notes.

86777 and 86778. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Lima, Peru. Tubers presented by Ralph H. Gray. Received April 2, 1930.

Tubers of yellow-fleshed potatoes, indigenous to Peru.

86777. From Canta, Peru.

86778. From Tarma, Peru.

86779 to 86781. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Huancayo, Peru. Tubers purchased from Paul Ledig. Received April 2, 1930.

Tubers of yellow-fleshed potatoes, indigenous to Peru.

86779. *Chaucha.*

86780.

86781.

86782. TRIFOLIUM PRATENSE L. Fabaceae. Red clover.

From Warsaw, Poland. Seeds purchased from W. W. Musareot. Received April 3, 1930.

Variety *Gloria.*

86783 to 86785. CYCLAMEN spp. Primulaceae.

From Leicester, England. Seeds purchased from Rev. J. Farnworth Anderson. Received April 4, 1930.

86783. CYCLAMEN EUROPAEUM L. European cyclamen.

A low more or less evergreen European perennial with a tuberous root, rounded or kidney-shaped leaves, white mottled above and purplish beneath, and fragrant bright-red flowers on scapes 4 or 5 inches high in autumn.

For previous introduction see No. 79192.

86784 and 86785. CYCLAMEN NEAPOLITANUM Tenore. Neapolitan cyclamen.

A low perennial 3 inches high, arising from a large black tuber. The deep pink or rarely white flowers are borne in autumn. Native to Italy.

For previous introduction see No. 79055.

86784. Variety *album.* A white form.

86785. A pink form.

86786 to 86789.

From Bucharest, Rumania. Seeds collected by H. L. Westover, agricultural explorer, Bureau of Plant Industry. Received April 5, 1930.

86786 and 86787. MEDICAGO SATIVA L. Fabaceae. Alfalfa.

86786. From the Government farm, Calarasi, southwestern Rumania.

86787. From the Government farm, Domnita, near the city of Braila on the Danube River.

86788 and 86789. TRIFOLIUM PRATENSE L. Fabaceae. Red clover.

86788. From the Government farm, Trestiana, near Jassy, northern Rumania.

86789. From the Government farm, Dobrovat, near Vaslui, northern Rumania.

86790 to 86822.

From the Union of Socialistic Soviet Republics. Seeds and scions presented by V. Viatkin, Government Botanical Garden, Nikita, Yalta, Crimea. Received April 5, 1930.

86790 to 86818. FICUS CARICA L. Moraceae. Common fig.

Scions.

86790. No. 12. *Belle dame Blanche.*

86791. No. 13. *Belle dure.*

86792. No. 22. *Bianco grosso.*

86793. No. 16. *Bleuet.*

86794. No. 4. *Bourjasotte.*

86795. No. 21. *Bourjasotte noire.*

86796. No. 17. *Broffotto.*

86797. No. —. *Datte de Naples.*

86798. No. 25. *Davlett Casi.*

86799. No. 14. *Di Dalmatic.*

86800. No. 15. *Di Smyrna.*

86790 to 86822—Continued.

86801. No. 11. *Early Gray*.
 86802. No. 5. *Brifera*.
 86803. No. 7. *Figue jaune* (Caprificus).
 86804. No. —. *Figue noire*.
 86805. No. 6. *Figue rouge*.
 86806. No. 20. *Grise Madeleine*.
 86807. No. 9. *Grosse grise bif*.
 86808. No. 19. *Holleuse blanche*.
 86809. No. 8. *Lardare*.
 86810. No. 1. *Moisoniere*.
 86811. No. 26. *Stambul*.
 86812. No. 23. *Violette de la frette*.
 86813. No. 18. *Violette delicatissima*.

86814 to 86822. PISTACIA spp. Anacardiaceae.

- 86814 to 86816. *PISTACIA MUTICA* Fisch. and Mey. *Terebinth*.
 86814. Scions from a staminate tree.
 86815. Scions from a pistillate tree.
 86816. Seeds.
 86817 to 86822. *PISTACIA VERA* L. *Pistache*.
 86817 and 86818. Scions.
 86819 to 86822. Seeds.

86823. PITHECOLLOBIUM SUBCOBIACEUM Thwaites. Mimosaceae.

From Hakgala, Ceylon. Seeds presented by J. J. Nock, Curator, Botanic Garden. Received April 7, 1930.

A tropical tree 30 to 40 feet high with densely pubescent brown branchlets and bipinnate leaves made up of rigidly coriaceous trapezoid leaflets less than half an inch long, glossy above and densely pubescent below. The small brownish flowers with long stamens are in many-flowered heads an inch in diameter, and the twisted, coriaceous pods are 3 to 4 inches long. It is native to India and Ceylon.

For previous introduction see No. 67937.

86824 to 86828. KALANCHOE spp. Crasulaceae.

From Stockholm, Sweden. Seeds presented by the director, Botanic Garden. Received April 3, 1930.

86824. KALANCHOE CRENATA Haw.

A succulent perennial native to tropical Africa, 2 to 6 feet high, with a thick fibrous root, oblong or roundish oval crenate leaves about 2 inches long, and bright-yellow flowers, half an inch long, in terminal and axillary cymes.

For previous introduction see No. 79477.

86825. KALANCHOE ROTUNDIFOLIA Haw.

A succulent perennial 1 to 3 feet high with a slender stem which has a few leaves at the base and is naked above. The fleshy leaves, 1 to 2 inches long, vary in shape from broadly obovate to spatulate, and are entire or crenate. The small orange or yellow flowers are borne in flat-topped panicles. Native to South Africa.

86824 to 86828—Continued.

For previous introduction see No. 86235.

86826. KALANCHOE SCHUMACHERI Koord.

An erect or ascending succulent, 1 to 2 feet high, with oblanceolate doubly serrate leaves 5 to 8 inches long, and axillary and terminal cymes of yellow flowers. It is native to Java.

86827. KALANCHOE SPATHULATA DC.

A succulent perennial 1 to 4 feet high with the lower leaves spatulate oblong, crenate, 3 to 10 inches long, and the upper leaves, 3 to 4 inches long, very narrow and sometimes trifoliate. The clear yellow flowers are in flattish corymbs. Native to tropical Asia.

For previous introduction see No. 86236.

86828. KALANCHOE WELWITSCHII Britten.

An erect succulent plant, native to tropical Africa, with cylindrical stems 3 to 5 feet high and an inch in diameter at the base. The large ovate-lanceolate basal leaves are 8 to 10 inches long and crenate-dentate with purple-margined teeth. The upper leaves are linear-lanceolate and nearly entire. The bright sulphur-yellow flowers, about an inch long, are borne in diffuse panicles.

86829. RUBUS ULMIFOLIUS Schott. Rosaceae. Elmleaf blackberry.

From Brignoles, France. Seeds presented by Dr. R. Salgues, The Salgues Foundation. Received April 8, 1930.

A blackberry with curving, prostrate canes armed with straight prickles. The compound leaves are made up of 3 or 5 coriaceous, evergreen, obovate or orbicular, sharply serrate leaflets, and the medium-sized red flowers are sometimes double. It is native to Europe.

For previous introduction see No. 50401.

86830 and 86831.

From Haiti. Seeds obtained through O. F. Cook, Bureau of Plant Industry, United States Department of Agriculture. Received April 8, 1930.

86830. FUNTUMIA ELASTICA (Preuss) Stapf. Euphorbiaceae.**Lagos rubber tree.**

A large forest tree which is very widely distributed throughout central Africa and is the source of Lagos rubber, which is of excellent quality.

For previous introduction see No. 77393.

86831. HEVEA BRASILIENSIS (H. B. K.) Muell. Arg. Euphorbiaceae.**Fara rubber tree.**

A tropical Brazilian tree now extensively cultivated for rubber.

For previous introduction see No. 77394.

86832. VITIS VINIFERA L. Vitaceae. European grape.

From Urumiah, Persia. Scions presented by Jalil K. Hashimzade, American Agricultural School. Received April 9, 1930.

86833. CITRUS AURANTIFOLIA
(Christm.) Swingle. Rutaceae.

Lime.

From Cairo, Egypt. Scions collected by Dr. H. S. Fawcett, University of California. Received April 11, 1930.

No. 89. *Beledi* lime. The best type used in Egypt and preferred to lemons. It seems to be somewhat similar to the West Indian limes, but grows more in the form of trees.

86834. VITIS VINIFERA L. Vitaceae.

European grape.

From Tokyo, Japan. Cuttings received from the Agricultural Experiment Station, Kofu City, Yamanashi Ken, through P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 10, 1930.

A grape which is supposed to be able to withstand a considerable amount of rainfall and for this reason should be of interest in the southern United States.

86835 to 86871. CUCUMIS MELO L. Cucurbitaceae. Melon.

From Leningrad, Union of Socialistic Soviet Republics. Seeds presented by the Institute of Applied Botany. Received April 12, 1930.

86835 to 86842. Variety *Agrestis*.

86835. No. 680-a. 86839. No. 2302.

86836. No. 1499. 86840. No. 2307.

86837. No. 2242. 86841. No. 2344.

86838. No. 2245. 86842. No. 2346.

86843 to 86847. Variety *Ameri*.

86843. No. 920/46. 86846. No. 1213.

86844. No. 953. 86847. No. 3054.

86845. No. 1206/3.

86848 and 86849. Variety *Cassaba*.

86848. No. 1618. 86849. No. 1825.

86850. No. 928. Variety *Khandaliaki*.**86851. No. 1396. Variety *Zard*.****86852. No. 1374/4.****86853 to 86859. Variety *Agrestis*.**

86853. No. D-680-a.

86854. No. D-1499.

86855. No. D-2242.

86856. No. D-2245.

86857. No. D-2302.

86858. No. D-2307.

86859. No. D-2344.

86860 to 86865. Variety *Ameri*.

86860. No. D-1150.

86861. No. D-1206. *Schakhar-palak*.86862. No. D-953. *Arbakeshi*.86863. No. D-1213. *Ak-uruk*.86864. No. D-3054. *Koy-bash*.86865. No. D-920. *Tch-Kizil*.**86866. No. D-1618. Variety *Cassaba*.****86867. No. 1020. Variety *Khandaliaki*.****86868. No. D-928. Variety *Khandaliaki*
"Bokharka."****86835 to 86871—Continued.**86869. No. D-1396. Variety *Zard*.

86870. No. D-533.

86871. No. D-917.

86872 and 86873. CASTANEA MOLLIS-SIMA Blume. Fagaceae.
Hairy chestnut.

From Tokyo, Japan. Seeds purchased by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry, at the request of R. Kent Beattie. Received April 16, 1930.

For previous introduction see No. 78831.

86874. ARDISIA CRENULATA Lodd. Myrsinaceae.

From Hawaii. Seeds presented by Harold L. Lyon, in charge, department of botany and forestry, Hawaiian Sugar Planters' Association, Honolulu. Received April 16, 1930.

A tropical evergreen shrub with oblong wavy-margined leaves, terminal panicles of sweet-scented white flowers, and drooping clusters of persistent coral-red fruits. It is native to China.

86875. BERCHEMIA RACEMOSA Sieb. and Zucc. Rhamnaceae.

Japanese supplejack.

From Karuigawa, Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received September 3, 1929. Numbered in April, 1930.

No. 823. A deciduous twining shrub with ovate leaves 1 to 3 inches long, and large terminal panicles of greenish flowers followed by small ellipsoidal berries which are first red and later change to black. It is native to Japan.

For previous introduction see No. 63341.

86876 to 87084. SOJA MAX (L.) PIPER (*Glycine hispida* Maxim.). Fabaceae. Soybean.

From Japan and Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930.

86876 to 86878. From Japan.

86876. No. 4249. *Daizu pikuanda*, Okinawa Ken Agricultural Experiment Station, Nawa, March 10, 1930. A medium-sized, oval, light-yellow bean with dark-brown hilum. Plant used as a green manure.

86877. No. 4251. *Joshin shiro*. From the Mikawayo Miso Co., Tokyo, March 10, 1930. A medium-sized, oval, glossy, yellow bean with pale hilum; grown in northeastern Chosen and found to be especially valuable in making white miso.

86878. No. 4255. From the Yama Masa Shoyu Sauce Factory, Nakano-Nachi, Tokyo, February 28, 1930. A mixed sample of medium-sized yellow beans, most of which have brown hilums; grown in Manchuria and used in the manufacture of soy sauce.

36876 to 87084—Continued.

- 36879 to 36896.** From Keikido Ken, Chosen, through the Bureau of Industry, Government General, Keijo, Chosen, March 10, 1930.
- 36879.** No. 4401. *Chantapaku*. A medium-sized, oval, deep glossy yellow bean with pale hilum.
- 36880.** No. 4402. *Rensen chame* (Rensen browneye). Medium-sized, oval, light-yellow bean with brown hilum.
- 36881.** No. 4403. *Oribikon*. Large, oval, glossy yellow beans with the testa split on nearly all of them; hilum very light brown.
- 36882.** No. 4404. *Bote*. A medium-sized, oval, light-yellow bean with brown hilum.
- 36883.** No. 4405. *Tansen*. A medium-sized, oval, glossy, yellow bean with pale hilum.
- 36884.** No. 4406. *Purutekon*. A medium-sized, nearly round, deep glossy green bean with brown hilum and green germ.
- 36885.** No. 4407. *Purutekon*. A medium-large, oval, yellowish-green bean with pale hilum and yellow germ.
- 36886.** No. 4408. *Teizokon*. A medium-large, oval, dark-brown bean.
- 36887.** No. 4409. *Komujonkon*. A medium-sized, oval, much-flattened, glossy, black bean with yellow germ.
- 36888.** No. 4410. *Mcnukon* (hawk eye). A medium-sized oval, slightly flattened, brown bean marked with concentric black rings.
- 36889.** No. 4411. *Pimazokon*. A large, oval, slightly flattened, black bean with fine network of white on the sides and a yellow germ.
- 36890.** No. 4412. *Sevbikon* (saddle). A medium-large, much flattened, yellowish-green bean with black saddle and green germ.
- 36891.** No. 4413. *Orabikon* (black-eye). A medium-sized, oval, glossy yellow bean with slate-black hilum.
- 36892.** No. 4414. *Purukomukon*. A medium-large, oval, glossy, bluish-green bean with pale hilum.
- 36893.** No. 4415. *Chukon* (white mouth). A small, round, yellow bean with brown hilum; it should be an excellent variety for sprouts.
- 36894.** No. 4416. *Chukon*. Medium-small, oval, glossy, black bean very similar to *Ebony* (No. 17254).
- 36895.** No. 4417. *Chukon* (green mouth). A medium-small, nearly round, glossy, green bean with light-brown hilum; it may be of value for sprouts.
- 36896.** No. 4418. *Chukon* (black-green mouth). A small, round, glossy, bluish-green bean with black hilum and yellow germ.
- 36897 to 86916.** From Chusei Hokudo, Chosen, through the Bureau of Industry, Government General, Keijo, March 10, 1930.
- 36897.** No. 4419. *Jirumukon*. A medium-small, nearly round bean with

36876 to 87084—Continued.

- a pale hilum; may be of value for sprouts.
- 86898.** No. 4420. *Hintangukon*. A medium sized, oval, yellow bean with russet-brown hilum.
- 86899.** No. 4421. *Chachuto*. A medium-small, nearly round, brown bean.
- 86900.** No. 4422. *Kimenta*. A medium-sized, oval, glossy, deep-yellow bean, slightly mottled with brown; hilum large and dark brown.
- 86901.** No. 4423. *Azukuribangukon*. A medium-large, oval, slightly flattened brown bean with the testa split into fine network of white on the sides.
- 86902.** No. 4424. *Burukunbankon*. A medium-sized, oval, yellowish-brown bean.
- 86903.** No. 4425. *Pakumeta* (white eye). A medium-sized oval, glossy, yellow bean with pale hilum.
- 86904.** No. 4426. *Fukota*. A medium-large, oval, glossy, yellow bean with large brown hilum.
- 86905.** No. 4427. *Pizu*. A medium small, nearly round, dark-brown bean.
- 86906.** No. 4428. *Chumokute*. A very small, round, glossy, black bean with yellow germ.
- 86907.** No. 4429. *Chongukon*. A large, oval, slightly flattened, yellowish-green bean, mottled with black; hilum black.
- 86908.** No. 4430. *Kujongumurukon*. A medium-large, oval, bluish-green bean with blue-black hilum.
- 86909.** No. 4431. *Purukon*. A large, oval, green bean with brown hilum and green germ.
- 86910.** No. 4432. *Jongukurukon*. A medium-small, oval, slightly flattened, green bean with brown hilum and yellow germ.
- 86911.** No. 4433. *Jindarinkon*. A medium-small, oval, black bean, very similar to *Ebony* (No. 17254).
- 86912.** No. 4434. *Chorante*. A medium-sized, oval, slightly flattened brown bean marked with concentric black rings. Very similar to *Meyer* (No. 17852).
- 86913.** No. 4435. *Komubangukon*. A medium-sized, oval, slightly flattened, glossy black bean with yellow germ.
- 86914.** No. 4436. *Judaizu*. A medium-large, oval, green bean slightly mottled with brown; hilum brown; testa more or less split.
- 86915.** No. 4437. *Chuhokuhoku*. A large, oval yellow bean with russet-brown hilum.
- 86916.** No. 4438. *Chuhokuko*. A medium-sized, oval, glossy, deep-yellow bean with pale hilum.
- 86917 to 86923.** From Zenra Nando, Chosen, through the Bureau of Industry, Government General, Keijo, March 10, 1930.
- 86917.** No. 4439. *Purukon*. A medium-sized, oval, olive-green bean mottled with black.

86876 to 87084—Continued.

86918. No. 4440. *Hindatsukon*. A large oval, glossy, greenish-yellow bean slightly mottled with brown; hilum brown.
86919. No. 4441. *Hinkon*. A medium-sized, oval, glossy, yellow bean slightly mottled with brown; hilum pale.
86920. No. 4442. *Pakute*. A medium-sized, oval, glossy, yellow bean with pale hilum.
86921. No. 4443. *Purukon*. A small, oval, light-green bean, marbled with brown; hilum brown.
86922. No. 4444. *Orikon*. A medium-small, oval, yellow bean, marbled with brown; hilum brown.
86923. No. 4445. *Norangukon*. A large, oval, slightly flattened brown bean with the testa more or less split.
- 86924 to 86925. From Chusel Nando, Chosen, through the Bureau of Industry, Government General, Keijo, March 10, 1930.
86924. No. 4446. *White bangukon*. A large, oval, glossy, yellow bean with large black hilum.
86925. No. 4447. *Azukuribangukon*. A medium-large, oval, slightly flattened black bean with yellow germ and having the testa split into white network.
86926. No. 4448. *Buongukon*. A medium-large, oval, glossy, yellow bean with pale to light-brown hilum.
86927. No. 4449. *Ojintei*. A medium-small, oval, glossy, deep-yellow bean with long, brown hilum.
86928. No. 4450. *Kongunamurakon*. A very small, round, glossy, yellow bean with pale hilum; should be an excellent variety for sprouts.
86929. No. 4451. *Black bangukon*. A medium-large, oval, slightly flattened black bean, with the testa on the sides split into a coarse network of white.
86930. No. 4452. *Red bangukon*. A medium-large, oval, slightly flattened glossy brown bean.
86931. No. 4453. *White zongukon*. A medium-sized, oval, light-yellow bean slightly mottled with brown; hilum brown.
86932. No. 4454. *Green bangukon*. A medium-large, nearly round, glossy, deep-green bean with black hilum and green germ.
86933. No. 4455. *Green zongukon*. A medium-sized, oval, glossy, green bean with brown hilum and green germ.
86934. No. 4456. *Purple bangukon*. A medium-large, nearly round, bluish-green bean with yellow germ.
86935. No. 4457. *Kuchougumurubangukon*. A medium-sized, oval, bluish-green bean with yellow germ.
86936. No. 4458. *Rokugatsuta*. A medium-sized, oval, glossy, yellow bean with pale hilum.
86937. No. 4459. *Jukon*. A medium-small, oval, black bean with yellow germ.

86876 to 87084—Continued.

86938. No. 4460. *Agudarikon*. A medium-large, oval, glossy, brown bean.
86939. No. 4461. *Tansen daizu*. A medium-sized, oval; light-yellow bean slightly mottled with brown; hilum pale to light brown.
86940. No. 4462. *Bangukon*. A medium-sized, oval, glossy, brown bean.
86941. No. 4463. *Azukurikon*. Medium-large, oval, slightly flattened, black beans, with the testa on the sides more or less split into coarse white network.
86942. No. 4464. *Kikkota*. A very large, oval, light-yellow bean with a pale hilum and the testa more or less split.
86943. No. 4465. *Uobangukon*. A large, oval, glossy, yellow bean with rather large black hilum.
86944. No. 4466. *Tezobankon*. A medium-sized, brown bean with yellow germ.
86945. No. 4467. *Ohimokuta*. A small, round, glossy, black bean with yellow germ.
86946. No. 4468. *Ortalbankon*. A medium-sized, oval, yellow bean slightly mottled with brown; hilum pale.
86947. No. 4469. *Oharumurbankon*. A medium-sized, oval, dark olive-brown bean with yellow germ.
86948. No. 4470. *Sonbtbankon*. A medium-large, oval, much flattened, yellowish-green bean with a black saddle.
86949. No. 4471. *Kuonjukon*. A medium-sized, oval, brown bean marked with concentric black rings.
86950. No. 4472. *Kuchongumurubankon*. A medium-large, oval, glossy, dark-olive bean with yellow germ.
86951. No. 4473. *Kuonguarubankon*. A medium-sized, oval, glossy, black and brown bean.
86952. No. 4474. *Honbibankon*. A large yellow, oval bean with pale hilum and the testa split on most seed.
86953. No. 4475. *Yongutebaku*. A medium-sized, oval, light-yellow bean with brown hilum.
86954. No. 4476. *Jinton zongukon*. A small, round, cinnamon-brown bean, very similar to *Bromie* (No. 17256).
86955. No. 4477. *Puruchumokuta*. A medium-small, nearly round, green bean with brown hilum and green germ.
86956. No. 4478. *Searuzonkon*. A medium-sized, nearly round, glossy, black and brown bean.
86957. No. 4479. *Azukuribankon*. A medium-large, oval, slightly flattened, black bean with the testa on both sides split into fine network of white.
86958. No. 4480. *Nujinzongukon*. A medium-small, oval, light-yellow bean mottled with brown; hilum brown.
86959. No. 4481. *Chantadaizu*. A medium-sized, oval, glossy, yellow bean with light-brown hilum.

86876 to 87084—Continued.

86960. No. 4482. *Anzurubansongukon*. A medium-large, oval, yellow bean with large, russet-brown hilum.
86961. No. 4483. *Searubankon*. A medium-sized, oval, slightly flattened brown bean marked with black concentric rings.
86962. No. 4484. *Batorubankon*. A medium-sized, oval, glossy, olive-brown bean.
86963. No. 4485. *Urungubankon*. A medium-large, oval, bluish-green bean.
86964. No. 4486. *Satorubankon*. A large, oval, glossy, olive-brown bean.
86965. No. 4487. A medium-sized, oval, slightly flattened black bean with yellow germ.
- 86966 to 86985. From Zenra Hokudo. Received through the Bureau of Industry, Government General, Keijo, Chosen, March 10, 1930.
86966. No. 4488. *Zomukon*. A medium-sized, oval, light-yellow bean with pale hilum.
86967. No. 4489. *Kogendokomujon*. A mixture of black-seeded varieties ranging from medium small to large, with yellow germ.
86968. No. 4490. *Kongunanmurakon*. A mixture of small-seeded yellow varieties which may be of value for sprouts.
86969. No. 4491. *Bamumitsukon*. A large, oval, black bean with the testa split into coarse network of white; germ yellow.
86970. No. 4492. *Pakute*. A medium-sized, oval, light-yellow bean with light-brown hilum.
86971. No. 4493. *Rokudatsuk*. A large, oval, yellowish-green bean slightly mottled with brown; hilum large and brown.
86972. No. 4494. *Pakute*. A medium-sized, oval, glossy, yellow bean slightly mottled with brown; hilum pale.
86973. No. 4495. *Rokukon*. A small, oval, glossy, green bean slightly mottled with brown; hilum brown, germ green.
86974. No. 4496. *Moyashimame*. A medium small, oval, slightly flattened bean mottled with brown; hilum brown.
86975. No. 4497. *Hinjunnunkon*. A very small, oval, yellow bean with a brown hilum which should be an excellent variety for sprouts.
86976. No. 4498. *Komongukon*. A medium-sized, oval, slightly flattened black bean with yellow germ.
86977. No. 4499. *Purunkon*. A medium-small, oval, green bean slightly mottled with brown; hilum brown; germ green.
86978. No. 4500. *Zongukon*. A medium-sized, oval, slightly flattened, light-yellow bean with brown hilum.
86979. No. 4601. *Kinzanshu*. A medium-small, oval, light-yellow bean, slightly mottled with brown; hilum pale.

86986 to 87084—Continued.

86980. No. 4602. *Purumtari*. A medium-sized, oval, glossy, yellow bean with pale hilum.
86981. No. 4603. *Rokugatsuzu*. A large, oval, glossy, yellow bean with pale hilum.
86982. No. 4604. *Kogendokkon*. A mixture of medium-sized, yellow varieties mottled with brown.
86983. No. 4605. *Kogendoshokuta*. A mixture of yellow-seeded varieties, ranging in size from small to very large.
86984. No. 4606. *Togomazu* (castor-oil bean). A large, oval, slightly flattened black bean with the testa split into coarse white network.
86985. No. 4607. *Chumokutasa*. A medium-small, nearly round, glossy, black bean with yellow germ.
86986. No. 4608. *Betsukon*. From Zenra Nando. Medium-sized, oval, yellow beans with pale to dark-brown hilums.
86987. No. 4609. *Shota*. From Zenra Hokudo. A medium-sized, oval, yellow bean with brown hilum.
86988. No. 4610. *Dairyu shu*. From Zenra Nando. A very large, oval, yellow bean; hilum brown and testa slightly split.
- 86989 to 86992. From Zenra Hokudo.
86989. No. 4611. *Burukon*. A medium-sized, oval, yellow bean slightly mottled with brown; hilum brown.
86990. No. 4612. *Orukon*. A medium-sized, oval, light-yellow bean with brown hilum.
86991. No. 4613. *Chantan*. A medium-large, oval, glossy, yellow bean with pale hilum.
86992. No. 4614. *Ekizan*. A medium-sized, oval, glossy, yellow bean with pale hilum.
- 86993 to 87084. From Keisho Hokudo.
86993. No. 4615. *Pakute*. From the Tasumen. A medium-sized, oval, yellow bean with brown hilum.
86994. No. 4616. *Purute*. From Kaizanmen. A medium-sized, oval, slightly flattened, yellowish-green bean with slate-black hilum.
86995. No. 4617. *Orukongu*. From Zunmen. A medium-sized, oval, slightly flattened, light-yellow bean with pale hilum.
86996. No. 4618. *Orukongu*. From Koromen. A medium-sized, oval, glossy, yellow bean with brown hilum.
86997. No. 4619. *Kota*. From Gikomen. A medium-sized, oval, green bean with brown hilum and green germ.
86998. No. 4620. *Orukongu*. From Shunzanmen. A medium-sized, oval, light-yellow bean with brown hilum.
86999. No. 4621. *Orukongu*. From Hasenmen. A medium-sized, oval, glossy, yellow bean with light russet-brown hilum.
87000. No. 4622. *Ogonta*. From the Shinhomen. A medium-sized, oval, light-yellow bean with brown hilum.

86876 to 87084—Continued.

87001. No. 4623. *Tonguteki*. From Kentomen. A medium-large, oval, glossy, yellow bean with the testa more or less split.
87002. No. 4624. *Ogonta*. From Seikimen. A large, oval, yellow bean with light-brown hilum.
87003. No. 4625. *Ikkota*. From Seikimen. A very large, oval, yellow bean with a pale hilum and the testa slightly split.
87004. No. 4626. *Pakushuta*. From Seikimen. A medium-sized, oval, yellow bean with brown hilum.
87005. No. 4627. *Hinkon*. From Daknmen. A medium-sized, oval, yellow bean with long, brown hilum.
87006. No. 4628. *Buyotari*. From Tatsuzanmen. A mixture of large, oval, glossy, yellow beans with black or brown hilums.
87007. No. 4629. *Kurukongu*. From Heikokumen. A medium-sized, oval, glossy, brown bean.
87008. No. 4630. *Ogonta*. From Neikaimen. A medium-large, oval, yellow bean with large, dark-brown hilum.
87009. No. 4631. *Zebiburukongu*. From Uhome. A very large, oval, slightly flattened, black bean with the testa split in white network on the sides.
87010. No. 4632. *Techoburukongu*. From Shoramem. A medium-small, nearly round, glossy, brown bean.
87011. No. 4633. *Orukongu*. From Kikeimen. A medium-sized, oval, light-yellow bean with brown hilum.
87012. No. 4634. *Hinkongu*. From Shoramem, Hokado. A very large, oval, yellow bean with the testa slightly split and the hilum pale.
87013. No. 4635. *Hingukongu*. From Kotomen. A medium-sized, nearly round, deep glossy yellow bean, slightly mottled with brown; hilum brown.
87014. No. 4636. *Hingukongu*. From Gaitomen. A large, oval, glossy, yellow bean with pale hilum.
87015. No. 4637. *Ikkota*. A mixture of yellow-seeded varieties from the Shimmeimen.
87016. No. 4638. *Hinyuntari*. From Eisenmen. A medium-sized, oval, slightly flattened, light-yellow bean with pale hilum.
87017. No. 4639. *Chongute*. From Sanyomen. A large, oval, green bean with black hilum and green germ.
87018. No. 4640. *Oseita*. From Sanyomen. A medium-large, oval, glossy, light-yellow bean with pale hilum.
87019. No. 4641. *Hakushokudaizu*. A mixture of yellow-seeded varieties from the Rynganmen.
87020. No. 4642. *Hinjuntari*. From Toromen. A large, oval, glossy, yellow bean with pale-brown hilum.
87021. No. 4643. *Buyotari*. From Kaineimen. A medium-small, oval, slightly flattened, light-yellow bean

86876 to 87084—Continued.

- slightly mottled with brown; hilum russet brown.
87022. No. 4644. *Hingukon*. From Kotenmen. A mixture of yellow-seeded varieties.
87023. No. 4645. *Hingukongu*. From Hosenmen. A mixture of yellow-seeded varieties.
87024. No. 4646. *Ogonta*. From the Jorimen. A large, oval, slightly flattened, yellow bean with brown hilum.
87025. No. 4647. *Totto tari*. From the Jorimen. A medium-large, oval, green bean with brown hilum and green germ.
87026. No. 4648. *Hinkongu*. From Fumonmen. A medium-large, glossy, yellow bean with pale hilum.
- 87027 to 87029. From Kaihome.
87027. No. 4649. *Chirugumukongu*. A small, oval, slightly flattened, cloudy yellow bean, slightly mottled with black; hilum black.
87028. No. 4650. *Soseishizu*. A medium-sized, oval, brown bean with the testa more or less split.
87029. No. 4651. *Hinchongutari*. Medium-large, oval, glossy, yellow beans with the hilums pale to brown.
87030. No. 4652. *Bannungumutongui*. From Unmonmen. A medium-sized, oval, light-yellow bean with brown hilum.
87031. No. 4653. *Nurinkongu*. From Kayomen. A medium-sized, oval, glossy, yellow bean with light-brown hilum.
87032. No. 4654. *Hakuchota*. From Shudomen. A medium-sized, oval, glossy, yellow bean with russet-brown hilum.
87033. No. 4655. *Nunkamaki*. From Gekomen. A medium-sized, oval, light-yellow bean with light-russet hilum.
87034. No. 4656. *Nunburukongu*. From Kasenmen. A medium-sized, oval, light-yellow bean with russet-brown hilum.
- 87035 to 87039. From Tanimen.
87035. No. 4657. *Torumukongu*. A medium-small, oval, glossy, brown bean.
87036. No. 4658. *Burukongu*. Medium-large, oval, brown beans with the testa more or less split.
87037. No. 4659. *Hingukongu*. A medium-sized, oval, yellow bean with large, brown hilum.
87038. No. 4660. *Chongute*. A medium-sized, oval, green bean with brown hilum and green germ.
87039. No. 4661. *Chirugumukongu*. A medium-small, oval, slightly flattened, glossy, black bean with yellow germ.
87040. No. 4662. *Kon*. From Kasaimen. A medium-sized, oval, yellow bean with brown hilum.

86876 to 87084—Continued.

87041. No. 4663. *Ogonta*. From Hojomen. A medium-sized, oval, glossy, yellow bean with pale hilum.
- 87042 to 87044. From the Keisho Hokudo Seed & Nursery Farm.
87042. No. 4664. A medium-sized, oval, greenish-yellow bean slightly mottled with brown; hilum brown.
87043. No. 4665. *Gizu*. A medium-sized, light-yellow bean with pale hilum.
87044. No. 4666. *Shozu*. A mixture of yellow and greenish-yellow varieties.
- 87045 to 87074. From Keisho Nando.
87045. No. 4668. *Banumitsukon*. From Shakomen. A medium-sized, slightly flattened, glossy, black bean with yellow germ.
87046. No. 4669. *Purukon*. From Shakomen. A small, oval, green bean with russet-brown hilum and green germ.
87047. No. 4670. *Anjanbangu*. From Shinanmen. A medium-sized, oval, glossy, yellow bean with brown hilum.
87048. No. 4671. *Purute*. From Tanjormen. A medium large, oval, glossy, green bean with black hilum and green germ.
87049. No. 4672. *Kanan kor*. From Kyosaimen. A medium large, oval, glossy, yellow bean with brown hilum.
87050. No. 4673. *Urusankon*. From Niummen. A medium-sized, oval, glossy, yellow bean with brown hilum.
87051. No. 4674. *Urusankon*. From Noshomen. A medium-sized, oval, light-yellow bean with brown hilum.
87052. No. 4675. *Urusankon*. From Ryoanmen. A large, oval, glossy, light-yellow bean with russet-brown hilum.
87053. No. 4676. *Pakukankon*. From Kasaimen. A medium small, black, oval bean which is slightly flattened and has a yellow germ.
87054. No. 4677. *Kanankon*. From Isenmen. A medium-sized, oval, glossy, yellow bean with pale hilum.
87055. No. 4678. *Sekizu* (red bean). From Saijomen. A medium-sized, oval, glossy reddish-brown bean.
87056. No. 4679. *Kanankon*. From Basenmen. A very large, oval, slightly flattened yellow bean with light-brown hilum and the testa more or less split.
87057. No. 4680. *Norichon*. From Hinkokumen. A medium small, nearly round, glossy, light-brown bean.
87058. No. 4681. *Himashimame*. From Masenmen. A medium large, oval, slightly flattened, black bean with the testa split into network of white on the sides.
87059. No. 4682. *Moyashimame*. From Saijomen. A medium-sized, oval, glossy, black bean with yellow germ.

86876 to 87084—Continued.

87060. No. 4683. *Urusankon*. From Naiseimen. A medium-sized, oval, yellow bean with pale hilum.
87061. No. 4684. *Kon*. From Nousenmen. A medium-large, oval, glossy, yellow bean with pale hilum.
87062. No. 4685. *Purukon*. From Kyosenmen. A medium-sized, oval, green bean with brown hilum and green germ.
87063. No. 4686. *Yorikuchiyoubi*. From Towkokow. A small oval, light-yellow bean slightly mottled with brown; hilum pale.
87064. No. 4687. *Koumrunurikon*. From Nanmen. A large, oval, slightly flattened, glossy, black bean with yellow germ.
87065. No. 4688. *Urusankon*. From Tosaimen. A mixture of medium-sized, yellow-seeded varieties.
87066. No. 4689. *Chunorikon*. From Naumen. A very small, nearly round, cloudy, yellow bean with black hilum; of value for sprouts.
87067. No. 4690. *Purute*. From Kihomen. A small, nearly round, cloudy, yellow bean with black hilum; of value for sprouts.
87068. No. 4691. *Paimikon*. From Koganmen. A medium-sized, oval, light-yellow bean with large russet-brown hilum and the testa more or less split.
87069. No. 4692. *Paiminkon*. From Jozanmen. A medium-sized, oval, slightly flattened, glossy, black bean with yellow germ.
87070. No. 4693. *Moyashimame* (sprout bean). From Tosmen. A mixture of yellow and yellowish-green, small-seeded varieties.
87071. No. 4694. *Moyashimame* (sprout bean). From Yunnanmen. A medium-sized, slightly flattened, glossy, green bean with brown hilum and green germ.
87072. No. 4695. *Waichuri*. From Yunnanmen. A medium-sized, oval, light-yellow bean with pale hilum.
87073. No. 4696. *Kanankon*. From Sekiryomen. A very large oval, glossy, yellow bean with russet-brown hilum and the testa more or less split.
87074. No. 4697. *Rokukon*. From Taishamen. A large, oval, olive-green bean with green germ, slate-black hilum, and testa more or less split.
- 87075 to 87084. From Kokaido.
87075. No. 4698. *Yanchorubeki*. From Angakumen. A medium-sized, oval, glossy, yellow bean with brown hilum.
87076. No. 4699. *Oiarukon*. From Komen. A large, oval, glossy, yellow bean with pale hilum.
87077. No. 4700. *Chantapakute*. From Shinkemen. A medium-large, oval, glossy, yellow bean with pale hilum.
87078. No. 4801. *Mitta*. From Kaishumen. A medium-sized, oval, glossy, yellow bean with light slate-black hilum.

86876 to 87084—Continued.

87079. No. 4802. *Puratekor*. From Dantomen. A medium-large, green, oval bean with black hilum and green germ.
87080. No. 4803. *Tansetta*. From Shitsunanmen. A large, oval, light-green bean with pale hilum and yellow germ.
87081. No. 4804. *Shosetta*. From Ichidomen. A medium-small, nearly round, glossy-green, bean with light-slate hilum.
87082. No. 4805. *Pitatekon*. From Chojumen. A medium-sized, oval, glossy, dark-brown bean with green germ.
87083. No. 4806. *Togomata*. From Hakubumen. A large, oval, slightly flattened, black bean with testa split into white network on sides.
87084. No. 4807. *Komuzonka*. From Dantomen. A medium-small, oval, slightly flattened, black bean with yellow germ.

87085 to 87122.

From Japan and Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received in April, 1930.

87085. *PUERARIA THUNBERGIANA* (Sieb. and Zucc.) Benth. Fabaceae. Kudzu. No. 3288. Obtained from T. Sakata & Co., Yokohama, Japan, January 11, 1930. Seed gathered from wild plants grown in the Mount Fuji region. Kudzu is not cultivated in Japan. A flour is made from the roots, and the vines are used in making small table mats, handles for various articles, and for many similar purposes.

87086 to 87122. Received March 10, 1930, through the Bureau of Industry, Government General, Keijo, Chosen.

- 87086 to 87089. *CHAETOCHELOA ITALICA* (L.) Scribn. (*Setaria italica* Beauv.). Poaceae. Millet.

Native varieties of Chosen millet, from Zenra Hokudo.

87086. No. 5012. *Awazairai shu*.
87087. No. 5014. *Fu ko*.
87088. No. 5013. *Awazairai shu*.
87089. No. 5020. *Awazairai shu*.
- 87090 to 87097. *FAGOPYRUM ESCULENTUM* Moench. Polygonaceae. Buckwheat.

87090. No. 4590. *Soba*, from Chusei Hokudo.

87091. No. 4591. *Soba*.

87092. No. 4592. *Banset* (late buckwheat), from Chusei Hokudo.

87093 to 87097. From Zenra Hokudo.

87093. No. 4994. *Soba zairai shu*.

87094. No. 4995. *Saru me melu*.

87095. No. 4996. *Tankaku Makung*.

87096. No. 4997. *Moku baku*.

87097. No. 5006. *Soba zairai shu*.

87098 and 87099. *GOSSYPIUM HIRSUTUM* L. Malvaceae. Upland cotton.

87085 to 87122—Continued.

87098. No. 4540. *Wata zaira men*, a native variety from Chusei Hokudo.

87099. No. 4541. *Rekeechimen*, from Chusei Hokudo.

87100. *GOSSYPIUM NANKING* Meyen. Cotton. Malvaceae.

No. 4539. *Sikemen* (red cotton), from Chusei Hokudo.

87101 to 87106. *HORDEUM VULGARE PAL-LIDUM* Seringe. Poaceae.

Six-rowed barley.

87101 to 87104. From Chusei Hokudo.

87101. No. 4570. *Koso*.

87102. No. 4571. *Rokubeu*.

87103. No. 4572. *Mumie port*.

87104. No. 4575. *Hege*.

87105. No. 5055. *Do dai baku* (large body barley), from Zenra Hokudo.

87106. No. 5057. *Sanlaku*, from Zenra Hokudo.

87107 to 87113. *ORYZA SATIVA* L. Poaceae. Rice.

From Chusei Hokudo.

87107. No. 4532. *Kozagumo*. Paddy rice.

87108. No. 4534. *Ozeki*. Paddy rice.

87109. No. 4542. *Uyobi*. Upland rice.

87110. No. 4543. *Rikuto*. Upland rice.

87111. No. 4544. *Rikuto*. Upland rice.

87112. No. 4545. *Rikuto*. Upland rice.

87113. No. 4546. *Kurokami* (black hair rice). Upland rice.

87114 to 87117. *TRITICUM AESTIVUM* L. (*T. vulgare* Vill.). Poaceae. Common wheat.

From Zenra Hokudo.

87114. No. 5021. California wheat. Very small grain.

87115. No. 5024. *Komugi zairai shu*, a native variety.

87116. No. 5031. *Nutsu misu*.

87117. No. 5035. *Ejutea*.

87118 to 87122. *ZEA MAYS* L. Poaceae. Corn.

From Chusei Hokudo.

87118. No. 4560. *Ton toumorokashi wase* (early corn). Interesting, rather small, white, flinty corn.

87119. No. 4561. *Toumorokashi*. A peculiar-looking seed.

87120. No. 4562. *Toumorokashi*. Small reddish grains which somewhat resemble sorghum.

87121. No. 4563. *Toumorokashi*. A small-grained, white, flinty corn.

87122. No. 4564. *Toumorokashi*. A rather small-grained, white, flinty corn.

87123. CAJANUS INDICUS Spreng. Fabaceae. Pigeon pea.

From Victoria, Cameroon. Seeds presented by T. D. Maitland, Superintendent, Botanic Gardens. Received April 11, 1930.

A variety grown locally.

87124 to 87137. ORYZA SATIVA L. Poaceae. Rice.

From Nanking, China. Seeds purchased from C. H. Heh, head of the Department of Agronomy, College of Agriculture and Forestry, through F. A. McClure. Received April 11, 1930.

Rice varieties secured from farmers in Changshu Hsien and Kiangyin Hsien, Kiangsu Province.

- 87124. No. 3. "Blood" glutinous rice, from Changshu.
- 87125. No. 1. "Fruit" glutinous rice, from Changshu.
- 87126. No. 9. Bearded glutinous rice, from Kiangyin.
- 87127. No. 6. Common glutinous rice, from Changshu.
- 87128. No. 12. Nonglutinous rice, from Kiangyin.
- 87129. No. 7. Late nonglutinous rice, from Changshu.
- 87130. No. 11. Late nonglutinous rice, from Kiangyin.
- 87131. No. 2. "Odorous" nonglutinous rice, from Changshu.
- 87132. No. 8. "Phoenix" nonglutinous rice, from Changshu.
- 87133. No. 5. "Sixty-day" nonglutinous rice, from Changshu.
- 87134. No. 4. "Sixty-day" nonglutinous rice, from Kiangyin.
- 87135. No. 14. "Sixty-day" nonglutinous rice, from Kiangyin.
- 87136. No. 10. "Wild glutinous" rice, from Kiangyin.
- 87137. No. 13. "Wild rice" (nonglutinous), from Kiangyin.

87138 and 87139.

From the Philippine Islands. Seeds presented by P. J. Wester, Horticulturist, Bureau of Plant Industry, Department of Agriculture and Natural Resources, Manila. Received April 11, 1930.

87138. SOLANUM sp. Solanaceae.

Kubiu. The yellow fruit is about the size and shape of an egg and has a tart, pleasant taste when sliced and cooked with sugar. It is originally from Java and should thrive in southern Florida and California.

87139. ASYSTASIA GANGETICA (L.) T. Anders. Acanthaceae.

A trailing and climbing, very vigorous everblooming vine with flowers ranging from nearly white to buff and purple. It should become a very popular ornamental in Florida and California, and may be used as an outdoor bedding plant as far north as Washington, D. C.

87140 to 87199.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930.

Received through the Bureau of Industry, Government General, Keijo, March 10, 1930.

87140. AVENA SATIVA L. Poaceae. Oats.

No. 4908. *Enbaku*, from Chusei Nando.

87141. CANNABIS SATIVA L. Moraceae. Hemp.

No. 4519. *Ouami*, from Keikido.

87142 to 87160. CHAETOCCHLOA ITALICA (L.) Scribn. (Setaria italica Beauv.) Poaceae. Millet.

The millets are very important small grain crops throughout the Orient.

- 87142. No. 4504. *Awa* millet, from Keikido.
- 87143. No. 4505. *Awa* millet, from Keikido. Small, round yellow seed.
- 87144 to 87150. From Chusei Hokudo.
- 87144. No. 4549. *Nomimochi*.
- 87145. No. 4550. *Jutonguchizo*.
- 87146. No. 4551. *Ohiazo*.
- 87147. No. 4552. *Setryo*.
- 87148. No. 4553. *Ochiazo*.
- 87149. No. 4554. *Kogendo*.
- 87150. No. 4555. *Mutsutokuzo*.

87151. No. 4731. Zairai, from Zenra Nando.

87152. No. 4732. Awa (Indian millet), from Zenra Nando.

87153. No. 5008. Awa zairai shu. A native variety.

87154 to 87160. From Zenra Hokudo.

- 87154. No. 5010. *Gurusosuku*.
- 87155. No. 5011. *Chiya so sukuru*. Red seed.
- 87156. No. 5015. *Awa zairai shu*. A native variety.
- 87157. No. 5016. *Awa zairai shu*. A native variety.
- 87158. No. 5017. *Mesosuku*.
- 87159. No. 5018. *Katryo* (proved millet).
- 87160. No. 5019. *Awa zairai shu*. A native variety.

87161 to 87163. ECHINOCHLOA CRUSGALLI EDULIS Hitchc. Poaceae. Japanese millet.

- 87161. No. 4520. *Hie*, from Kabei Keikido.
- 87162. No. 4706. *Hie*, from Chusei Hokudo.
- 87163. No. 4905. *Hie* (barn grass), from Chusei Nando.

87164 to 87173. FAGOPYRUM ESCULENTUM Moench. Polygonaceae. Buckwheat.

- 87164. No. 4510. *Saba*, from Rensen, Keikido.
- 87165. No. 4376. *Saba*, from Zenra Nando.

87140 to 87199—Continued.

87166. No. 4737. *Saba*, from Zenra Nando.
- 87167 to 87173. *Saba zairai shu* (buckwheat, native variety), from Zenra Hokudo.
87167. No. 4998.
87168. No. 5000.
87169. No. 5001.
87170. No. 5003.
87171. No. 5004.
87172. No. 5505.
87173. No. 5007.
- 87174 to 87177. *Gossypium* spp. Malvaceae. Cotton.
87174. *Gossypium hirsutum* L. Upland cotton. No. 4512. *Rikcechimen*, from Keijo Keikido.
87175. *Gossypium hirsutum* L. Upland cotton. No. 4962. *Kengu suemu pumudo* from Zenra Hokudo.
87176. *Gossypium nanking* Meyen. No. 4523. *Zairaimen* (native cotton), from Yohei Keikido.
87177. *Gossypium* sp. No. 4746. *Zairaimen* (original cotton), from Zenra Nando.
- 87178 to 87199. *Hordeum* spp. Poaceae. Barley.
- 87178 to 87180. *Hordeum vulgare* C. Eleste L. Six-rowed barley. Native name, *Hadaka mugi*.
87178. No. 4516. Naked barley, from Keikido.
87179. No. 4709. From Chusei Hokudo.
87180. No. 4710. From Chusei Hokudo.
- 87181 to 87199. *Hordeum vulgare* P. Lidum Seringe. Six-rowed barley.
87181. No. 4507. *Omugi*. A small-grained, bright-colored, nice-looking barley from Keikido.
87182. No. 4508. *Omugi*, from Keikido.
- 87183 to 87185. From Chusei Hokudo.
87183. No. 4573. *Zatraiso* (original barley).
87184. No. 4574. *Nurupari*.
87185. No. 4576. *Son*.
87186. No. 4770. *Kawa boko*, from Zenra Nando.
- 87187 to 87189. From Chusei Nando.
87187. No. 4792. *Tonpori*.
87188. No. 4793. *Sonbaku*.
87189. No. 4794. *Nuru pori*.
- 87190 to 87199. From Zenra Hokudo. *Omugi zairai shu*, a native variety.
87190. No. 5037.

87140 to 87199—Continued.

87191. No. 5041.
87192. No. 5042.
87193. No. 5044. *Nagabo omugi* (long-spiked barley).
87194. No. 5045. *Kawa mugi* (skin barley).
87195. No. 5047. *Zungu bori*.
87196. No. 5049. *Tongu bori*.
87197. No. 5051. *Omugi zairai shu*, a native variety.
87198. No. 5052. *Tongu katsu bori*.
87199. No. 5056. *Bozu* (awnless barley).
87200. *Medicago sativa* L. Fabaceae. Alfalfa. From Prague, Czechoslovakia. Seeds purchased from Egidy, Kriner & Sohne by H. L. Westover, agricultural explorer, Bureau of Plant Industry. Received April 12, 1930. A variety grown locally.
- 87201 to 87280. *Oryza sativa* L. Poaceae. Rice. From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930. Received through the Bureau of Industry, Government General, Keijo, March, 1930.
- 87201 to 87203. From Zenra Hokudo; paddy rice.
87201. No. 1926. *Zuso*.
87202. No. 1934. *Nakate nishiki bozu*.
87203. No. 3938. *Kokura miyako*.
87204. No. 4394. *Rikuto owari mochi* (Owari gluten). Upland rice from Yohei, Keikido.
87205. No. 4395. *Rikuto zairai mochi* (original gluten); an upland rice with small grain from Shini Keikido.
- 87206 and 87207. From Suigen, Keikido; paddy rice.
87206. No. 4396. *Suito tamanishiki*.
87207. No. 4397. *Suito haya shinriki* (early shinriki).
87208. No. 4398. *Suito sekthaku*. Paddy rice from Kahel, Keikido.
87209. No. 4399. *Suito hinode* (sunrise). Paddy rice from Ryujin, Keikido.
87210. No. 4400. *Suito bakuso*. Paddy rice from Chotan, Keikido. A nice-looking, short-kernel rice.
87211. No. 4501. *Suito hasshoso*. Paddy rice from Anjo, Keikido.
87212. No. 4502. *Suito aikoku*. A short-seeded paddy rice from Ryujin, Keikido.
- 87213 to 87221. From Chusei Hokudo; paddy rice.
87213. No. 4527. *Gin*.
87214. No. 4528. *Odaito*.
87215. No. 4529. *Shinbonchiki be*.

87201 to 87280—Continued.

87216. No. 4530. *Kugatsu*.
 87217. No. 4531. *Hakuso*.
 87218. No. 4533. *Mame*.
 87219. No. 4535. *Nishiki*.
 87220. No. 4536. *Nishiki No. 9*.
 87221. No. 4537. *Haya shinriki*.
 87222 to 87228. From Zenra Nando; paddy rice.
 87222. No. 4713. *Haya shinriki*.
 87223. No. 4714. *Kokura miyako*.
 87224. No. 4715. *Tamanishiki*.
 87225. No. 4716. *Omachi*.
 87226. No. 4717. *Chujiku shinriki* (middle-season crop).
 87227. No. 4718. *Benkei*.
 87228. No. 4719. *Waiso* (dwarf).
 87229 to 87232. From Zenra Nando; upland rice.
 87229. No. 4720. *Oruke*.
 87230. No. 4721. *Rikuto* (upland rice).
 87231. No. 4722. *Bidan santo*.
 87230. No. 4721. *Rikuto* (upland rice).
 87233 and 87234. From Chusei Nando; paddy rice.
 87233. No. 4779. *Orujibe*.
 87234. No. 4783. *Za shinriki*.
 87235 to 87256. From Zenra Hokudo; paddy rice.
 87235. No. 4914. *Meao*.
 87236. No. 4915. *Shikoku*.
 87237. No. 4916. *Daiso*.
 87238. No. 4917. *Suzuki shinriki*.
 87239. No. 4918. *Wai naka mi*.
 87240. No. 4919. *Kakueki*.
 87241. No. 4920. *Kokko*.
 87242. No. 4922. *Futafushi mari so*.
 87243. No. 4923. *Suzuki so*.
 87244. No. 4925. *Jindo so*.
 87245. No. 4927. *Gan fu so*. Seed with red hulls.
 87246. No. 4928. *Beiso*.
 87247. No. 4929. *Suigen to*.
 87248. No. 4930. *Kinzan*.
 87249. No. 4931. *Wase*.
 87250. No. 4932. *Shu kakudo*.
 87251. No. 4933. *Aikoku*.
 87252. No. 4935. *Bansei ginbozu*.
 87253. No. 4936. *Naka shinriki*.
 87254. No. 4937. *Benkei*.
 87255. No. 4939. *Sektzan so*.
 87256. No. 4940. *Tamanishiki*.
 87257. No. 4941. *Haya shinriki*. Paddy rice from Zenra Nando.
 87258 and 87259. Paddy rice from Zenra Hokudo.
 87258. No. 4942. *Takachiho*.

87201 to 87280—Continued.

87259. No. 4943. *Kinai No. 14*.
 87260 to 87277. Upland rice from Zenra Hokudo.
 87260. No. 4944. *Kaneko uruchi*.
 87261. No. 4945. *Mosanto*.
 87262. No. 4946. *Kurukari santo*.
 87263. No. 4947. *Mtru tare*.
 87264. No. 4948. *Zairai* (native variety).
 87265. No. 4949. *Zairai shu* (native variety).
 87266. No. 4950. *Kurusanto*.
 87267. No. 4951. *Zairai shu*.
 87268. No. 4952. *Zairai shu*.
 87269. No. 4953. *Zairai shu*.
 87270. No. 4954. *Zairai shu*.
 87271. No. 4955. *Zairai shu*.
 87272. No. 4956. *Rikuto* (upland rice).
 87273. No. 4957. *Rikuto* (upland rice).
 87274. No. 4958. *Toyaji chiyara*.
 87275. No. 4959. *Kokuzan to*.
 87276. No. 4960. *O Dari*.
 87277. No. 4961. *Kurokami*.
 87278. No. 5280. *Suito kukura miyako*; paddy rice from Suigen Keikido.
 87279. No. 5305. *Rikuto kanekomochi* (Kaneko, gluten); upland rice from Keikido, Keijo.
 87280. No. 4538. *Tamanishiki*; paddy rice from Chusei Hokudo.

87281 to 87344.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930.

Received through the Bureau of Industry, Government General, Keijo, March 10, 1930.

- 87281 to 87285. PANICUM MILIACEUM L. Poaceae. **Proso.**
 87281. No. 4513. *Kibi*. Indian millet from Ryuujin, Keikido.
 87282. No. 4910. *Chichiangu*. From Chusei Nando.
 87283. No. 4557. *Kibi*. Indian millet from Zenra Nando.
 87284. No. 4758. *Kibi*. Indian millet from Zenra Nando.
 87285. No. 4599. *Black Chichiangu*, from Chusei Hokudo.
 87286 to 87344. PHASEOLUS spp. Fabaceae.
 87286 to 87320. PHASEOLUS ANGULARIS (Willd.) W. F. Wight. **Adzuki bean.**
 87286. No. 4524. *Azuki*, from Keikido Ken. A medium-sized, maroon-colored bean.
 87287 to 87297. From Chusei Hakudo.
 87287. No. 4577. *Azuki*. A medium-sized, black and olive mottled bean.

87281 to 87344—Continued.

87288. No. 4578. *Haru azuki*. A medium-sized, light buff-colored bean.
87289. No. 4580. *Azuki*. A large reddish-brown bean.
87290. No. 4581. *Kurupatsu*. A medium-sized bean, mottled olive and black.
87291. No. 4582. *Azuki*. A medium-small, reddish-brown bean.
87292. No. 4583. *Azuki*. A medium-large, glossy, red bean.
87293. No. 4584. *Azuki*. A medium-large, reddish-brown bean.
87294. No. 4585. *O Shozu*. A medium-large bean mottled olive and black.
87295. No. 4586. *Azuki*. A large maroon-colored bean.
87296. No. 4587. *Deakori*. A medium-sized bean mottled black and reddish-brown.
87297. No. 4589. *Azuki*. A medium-sized, brown bean.
87298. No. 4902. *Seki patsu*.
87299. No. 4903. *Kom patsu*. A medium-sized bean marbled olive and gray.
87300. No. 4904. *Puru patsu*. A medium-sized green bean; should be excellent for sprouts.
- 87301 to 87315. From Zenra Hokudo.
87301. No. 4978. *Sekizu*. A medium-small, reddish-brown bean.
87302. No. 4979. *Koyangui*. A medium-sized bean mottled black and white.
87303. No. 4980. *Paku patsu*. A medium-sized, light-buff seed.
87304. No. 4981. *Azuki zairai shu*. A small, reddish, native variety which has a brown seed.
87305. No. 4982. *Azuki zairai shu*. A native variety which has a small reddish-brown seed.
87306. No. 4983. *Sekizu*. A medium-sized, brownish-red bean.
87307. No. 4984. *Azuki zairai shu*. A native variety which has medium-sized, reddish-brown seed.
87308. No. 4985. *Sekizu*. A medium-sized, reddish-brown bean.
87309. No. 4986. *Azuki zairai shu*. A native variety with medium-sized, reddish-brown seed.
87310. No. 4987. *Azuki zairai azuki*. A native variety with medium-sized, reddish-brown seed.
87311. No. 4988. *Azuki zairai azuki*. A native variety with medium-sized, reddish-brown seed.
87312. No. 4989. *Sekizu*. A medium-large, reddish-brown bean.
87313. No. 4991. *Sekizu*. A medium-sized, reddish-brown bean.
87314. No. 4992. *Sekizu*. A large, reddish-brown bean.

87281 to 87344—Continued.

87315. No. 4993. *Goju nichit azuki* (50-day Azuki). A medium-sized bean mottled white and black.
- 87316 to 87320. From Keisho Hokudo.
87316. No. 5143. *Patsu*. A medium-sized bean mottled olive and black.
87317. No. 5144. *Goju nichit azuki*. A medium-sized bean mottled brown and black.
87318. No. 5146. A medium-sized, reddish-brown bean.
87319. No. 5147. *Goju nichit azuki*. A medium-sized, reddish-brown bean.
87320. No. 5148. *Haya shozu*. A medium-sized, maroon-colored bean.
- 87321 to 87339. PHASEOLUS AUREUS Roxb. Mung bean.
87321. No. 4974. *Rokuto zairai* (native mung bean). A variety with a small green seed, from Zenra Hokudo.
87322. No. 4517. *Rokuto*. A small, dull, dark-green bean, from Koshu Heikido.
- 87323 to 87325. From Chusel Hokudo.
87323. No. 4567. *Rokuto*. An excellent variety of the Golden Mung bean. It should be of value for sprouts.
87324. No. 4568. *Rokuto*. An excellent variety of the Golden Mung bean. It should be of value for sprouts.
87325. No. 4569. *Rokuto*. A medium-sized, dull-green bean.
87326. No. 4911. *Rokuto*. A small dull-green bean, from Chusel Nando.
- 87327 to 87338. From Zenra Hokudo. *Rokuto Zairai*, the native mung bean, which is small and dull green.
87327. No. 4965.
87328. No. 4966.
87329. No. 4967.
87330. No. 4968.
87331. No. 4969.
87332. No. 4970.
87333. No. 4971.
87334. No. 4972.
87335. No. 4973.
87336. No. 4975.
87337. No. 4976.
87338. No. 4977.
87339. No. 5157. *Rokuto*. A small, dull-green bean, from Keisho Hokudo.
- 87340 and 87341. PHASEOLUS CALCARATUS Roxb. Rice bean.
87340. No. 4588. *Ritatsu*. A mixture of maroon and greenish-yellow beans, from Chusel Hokudo.

87281 to 87344—Continued.

87341. No. 5145. *Kozu*. A medium-sized, reddish-brown bean, from Keisho Hokudo.

87342 to 87344. *PHASEOLUS VULGARIS* L. Common bean.

87342. No. 4522. *Ingui*. A mottled garden bean from Keikido. This is one of the common garden beans widely distributed in Japan.

87343. No. 4566. *Gangunangu kongu*. From Chusei Hokudo.

87344. No. 4798. *Ingen*. From Chusei Nando.

87345 to 87372.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930.

Received through the Bureau of Industry, Government General, Keijo, Chosen, March 10, 1930.

87345 to 87348. *PISUM SATIVUM* L. Fabaceae. Pea.

87345. No. 4503. *Endo*, from Keikido. A rather small, light-green field pea.

87346. No. 4547. From Chusei Hokudo.

87347. No. 4788. *Endo*, from Chusei Nando.

87348. No. 4726. *Etsupotsu*, from Zenra Nando.

87349. *SECALE CEREALE* L. Poaceae. Rye.

No. 4514. *Rai mugi*, from Keikido.

87350 to 87355. *SORGHUM VULGARE* Pers. Poaceae. Sorghum.

87350. No. 4509. *Morokohi*, from Rensen, Keikido.

87351 to 87354. From Chusei Hokudo.

87351. No. 4556. *Bimokususu*.

87352. No. 4557. *Chiyangutesusu*.

87353. No. 4558. *White susu*.

87354. No. 4559. *Bangu mangnisusu*.

87355. No. 4796. *Bomususu*. From Chusei Nando.

87356 to 87372. *TRITICUM AESTIVUM* L. (*T. vulgare* Vill.). Poaceae. Common wheat.

87356. No. 4525. *Komungi*.

87357. No. 4256. Received from the Yama Masa Shoyu Sauce Factory, Nakano-Machi, Tokyo, Japan, February 28, 1930. This seed is used in the manufacture of soy sauce.

87358. No. 4526. *Komungi*. A soft wheat from Keikido.

87359 to 87363. From Chusei Hokudo.

87359. No. 4600.

87360. No. 4701.

87361. No. 4702.

87362. No. 4703. *Furutsee*.

87363. No. 4704. *California*.

87364. No. 4799. *California*, from Chusei Nando.

87365 to 87372. From Zenra Hokudo.

87345 to 87372—Continued.

87365 to 87367. *Komugi zairai shu*. A native variety of wheat.

87365. No. 5026.

87366. No. 5027.

87367. No. 5028.

87368. No. 5029. *Shiro dozu* (white, smooth wheat).

87369 to 87371. *Komugi zairai shu*.

87369. No. 5030.

87370. No. 5033.

87371. No. 5034.

87372. No. 5036. *Moreya*.

87373 to 87381.

From Japan and Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930.

87373. *VICIA FABA* L. Fabaceae. Broadbean.

No. 4250. *Soramame*. From the Ikinawa Ken Agricultural Experiment Station, Nawa, Ikinawa Ken, Japan, March 10, 1930. Said to be a native variety in the Ikinawa Prefecture. A medium-sized, olive-green bean with black hilum.

87374 to 87376. *VIGNA SINENSIS* (Torner) Savi. Fabaceae. Cowpea.

87374. No. 4548. From Chusei Hokudo.

87375. No. 4579. *Tongubu*. From Chusei Hokudo. A medium-small, white bean with black eye.

87376. No. 5152. *Kintoki*. From Keisho Hokudo. A medium-sized cowpea resembling Whippoorwill; marked or marbled with white.

87377 to 87381. *ZEA MAYS* L. Poaceae. Corn.

Native name *Tounoro koshi*.

87377. No. 4506. From Keikido. Yellow flint corn.

87378. No. 4565. From Chusei Hokudo. The grains are flat and round, clear white, with a flinty appearance.

87379. No. 4790. From Chusei Nando.

87380. No. 5140. From Zenra Hokudo. A very small, yellowish-white grain of flinty appearance.

87381. No. 5142. From Zenra Hokudo. Small, different-colored grains which look flinty.

87382. *LARIX SIBIRICA* Ledeb. Pinaceae. Siberian larch.

From Nijni-Taghliksij District, Ural Area, Union of Socialistic Soviet Republics. Seeds presented by the Merkoushinskij Verhotourskij Commission through H. V. Harlan, Bureau of Plant Industry. Received April 14, 1930.

A tall, deciduous, very hardy larch, up to 125 feet high. It has a straight, slender trunk and short branches. Native to Siberia.

For previous introduction see No. 73799.

87383. *GUILIELMA GASIPAES* (H. B. K.) Bailey (*G. speciosa* Mart.). Phoeniceaceae. Pupunha.

87383—Continued.

From Summit, Canal Zone. Seeds presented by J. E. Higgins, Director, Experiment Gardens. Received April 19, 1930.

An Amazonian palm, becoming ultimately about 60 feet high, closely allied to the peijbaya (*Guilielma utilis*). Like the peijbaya, it furnishes food for great numbers of people in regions where it is indigenous, and appears to be of promise for cultivation as a food plant throughout the Tropics in congenial situations.

For previous introduction see No. 60367.

87384. LANDOLPHIA sp. Apocynaceae.

From Fort Dauphin, Madagascar. Seeds presented by P. B. Stolee, Lutheran Mission. Received April 16, 1930.

Voakena mainty (black rubber). From the Manantenina District, 70 or 80 miles north of Fort Dauphin. The fruit is pear shaped, and the skin is green, blotched with black.

87385 to 87387.

From Eala, Belgian Congo. Seeds presented by A. Corbisier-Baland, Director, Botanic Gardens. Received April 16, 1930.

87385. LANDOLPHIA KLAINII Pierre. Apocynaceae.

A tropical African climbing shrub which is said to be the principal rubber-producing plant in the Gabon district, French Equatorial Africa. The oblong, leathery leaves are glossy green, and the hard, globose fruits are 6 to 10 inches in diameter.

For previous introduction see No. 64164.

87386. PALAQUIUM OBLONGIFOLIUM (De Vriese) Burck. Sapotaceae.

A tropical tree with oblong-lanceolate coriaceous leaves 4 to 6 inches long, green above and golden beneath. The small flowers, in axillary clusters of one to six, are followed by brownish pubescent, ovoid fruits 2 to 3 inches in diameter. It is native to Sumatra and Borneo and is of possible value as a source of rubber.

87387. PAYENA LEBRII (T. and B.) Kurz. Sapotaceae.

The *gutta sundek* tree of the Malay Peninsula; of possible value as a source of gutta-percha.

For previous introduction see No. 73251.

87388 to 87398.

From the Union of Socialistic Soviet Republics. Seeds collected by H. L. Westover, agricultural explorer, Bureau of Plant Industry. Received April 16, 1930.

Received through the Institute of Applied Botany, Leningrad.

87388. CITRULLUS VULGARIS Schrad. Cucurbitaceae. Watermelon.

No. 311. From Samarkand, Uzbek Republic (Turkestan).

87389. CITRULLUS VULGARIS Schrad. Cucurbitaceae. Watermelon.

No. 317. From Chalek, near Samarkand, Uzbek Republic (Turkestan).

87388 to 87398—Continued.

87390 to 87392. MEDICAGO SATIVA L. Fabaceae. Alfalfa.

87390. No. 318. From the village of Bob-Arab near Ashkabad, Turkoman Republic, October 3, 1929.

87391. No. 319. From the village of Bob-Arab near Ashkabad, Turkoman Republic, October 4, 1929.

87392. No. 257. From Krassovskaya. One of the best Ukrainian strains of alfalfa.

87393. TRITICUM AESTIVUM L. (*T. vulgare* Vill.). Poaceae. Common wheat.

No. 313. From northeast of Fergana, Uzbek Republic (Turkestan).

87394 to 87398. ZEA MAYS L. Poaceae. Corn.

87394. No. 312. Red corn grown to a limited extent in the vicinity of Chardjni.

87395. No. 312. White corn grown to a limited extent in the vicinity of Chardjni.

87396. No. 314. From Samarkand, Uzbek Republic (Turkestan).

87397. No. 315. Red corn from Ashkabad, Uzbek Republic (Turkestan), October 1, 1929.

87398. White corn from Ashkabad, Uzbek Republic (Turkestan), October 1, 1929.

87399 and 87400. PRUNUS ARMENIACA L. Amygdalaceae. Apricot.

From the Union of Socialistic Soviet Republics. Scions presented by A. Kol, Chief, Bureau of Introduction, Institute of Applied Botany and New Cultures, Leningrad. Received April 16, 1930.

87399. Variety *Adutvarhdam*.

87400. Variety *Xypman*.

87401. CITRUS NOBILIS DELICIOSA (Ten.) Swingle. Rutaceae. Mandarin orange.

From Cairo, Egypt. Scions collected by Dr. H. S. Fawcett, University of California. Received April 17, 1930.

No. 90. Bud wood from the best tree in Mr. Bahgat's orchard, near Tanta, Egypt. Said to have fine large fruit.

87402 to 87407.

From Dotnuva, Lithuania. Seeds presented by T. Kricinnap, Chief, Crops Division, Agricultural Academy. Received April 17, 1930.

From the Plant-Breeding Station at Dotnuva.

87402. AVENA SATIVA L. Poaceae. Oats. No. A-331.

87403. HORDEUM DISTICHON PALMELLA Harlan. Poaceae. Two-rowed barley.

144-N. *Swan's neck*.

87404. HORDEUM DISTICHON PALMELLA Harlan. Poaceae. Two-rowed barley.

145-N. *Golden*.

87405. SECALE CEREALE L. Poaceae. Rye. Winter rye of Riga.

87402 to 87407—Continued.

87406. TRIFOLIUM PRATENSE L. Fabaceae.
Red clover.

From the 1929 harvest.

87407. TRIFOLIUM REPENS L. Fabaceae.
White clover.

From the harvest of 1929.

87408 to 87430. ORYZA SATIVA L. Poaceae.
Rice.

From Canton, China. Seeds presented by Koo Kwai Fan, in charge of farm crops, Lingnan Agricultural College, through F. A. McClure, Lingnan University.

Varieties of Chinese rice, from the 1929 harvest, from various localities in Kwangtung Province.

F.P.I. No.	F.A.M. No.	Lingnan Agr. Col. No.	Romanized name	Crop	F.P.I. No.	F.A.M. No.	Lingnan Agr. Col. No.	Romanized name	Crop
87408	1055	2	In chui hung	Early.	87421	1068	105	Paak hok sz miu	Late.
87409	1056	4	Noh chaap	Late.	87422	1069	107	Ngan nga chim	Do.
87410	1057	5	Kam shaan chim	Early.	87423	1070	111	Paak hok yau chim	Do.
87411	1058	8	Paak hok so chim	Late.	87424	1071	112	Hung t'au so chim	Do.
87412	1059	18	Yeung uen chim	Early.	87425	1072	116	Shong kong chim	Do.
87413	1060	24	Koi leung tung koon paak	Do.	87426	1073	117	T'ai chung wong hok so chim	Do.
87414	1061	26	Ngan chim	Do.	87427	1074	136	Paak hok so chim	Do.
87415	1062	46	Ma mei ch'ai	Do.	87428	1075	150	Ch'ik mai sz miu	Do.
87416	1063	50	On naam kaang	Do.	87429	1076	156	Yeung ch'un chuk chim	Do.
87417	1064	50	Heung kuk	Late.	87430	1077	165	Ch'ang shui chim	Do.
87418	1065	51	Shiu koo Z	Early.					
87419	1066	58	T'ai kwat yau chim	Late.					
87420	1067	65	Wong hok kam fung	Do.					

¹ Second crop.

87431. CITRUS AURANTIUM L. Rutaceae.
Sour orange.

From Cairo, Egypt. Seed collected by Dr. H. S. Fawcett, University of California. Received April 18, 1930.

No. 91. From the Horticultural Division of the Ministry of Agriculture. Large fruits from vigorous standard trees.

87432 to 87436.

From Buitenzorg, Java. Seeds presented by the Director of the Botanic Garden. Received April 18, 1930.

87432. CURCUMA PETIOLATA Roxb. Zinziberaceae.

A tropical perennial with a rootstock which sends up a tuft of four to six oblong pointed leaves 6 to 9 inches long on petioles about a foot long. The yellowish-white flowers are in a spike 6 inches long and are surrounded by large, purple or lilac bracts. It is native to India and is considered to be the showiest of the curcumas.

87433. CURCUMA ZEDOARIA (Bergius) Roscoe. Zinziberaceae.

A tropical perennial with a large tuberous rootstock, lanceolate leaves 1 to 2 feet long, pale-yellow flowers, and bright-red bracts. It is native to India, where it is cultivated for the rootstocks, which resemble ginger in pungency.

87434 to 87436. LIVISTONA spp. Phoenicaceae.
Palm.

87434. LIVISTONA COCHINCHINENSIS (Blume) Mart.

A slender palm about 50 feet high, with a crown of large, fan-shaped leaves. It is native to Malakka.

87432 to 87436—Continued.

For previous introduction see No. 73247.

87435. LIVISTONA DECIPIENS Beccari.

A fan palm of medium height and a trunk diameter of about 15 inches. The leaves are made up of about 80 segments, which are very weak at the tips, hanging as though wilted. It is native to South Australia.

87436. LIVISTONA INERMIS R. Br.

A moderate-sized fan palm 15 to 30 feet high, closely resembling *L. humilis* except that the petioles are entirely unarmed. It is native to North Australia.

87437 and 87438. GOSSYPIUM BARBADENSE L. Malvaceae.

Sea-island cotton.

From Egypt. Seeds presented through S. A. Steere, Manager of the Cotton and Fabric Division of the Goodyear Tire & Rubber Co. Received April 18, 1930.

87437. *Giza* 3. Cotton grown in Lower Egypt.

87438. Cotton grown in Upper Egypt.

87439 to 87445. OLEA EUROPAEA L. Oleaceae. Olive.

From Fez, Morocco, Africa. Cuttings presented by Mr. Thauvin, Inspector of Agriculture, Mekinez, through Prof. Frederic T. Bioletti, University of California. Received April 22, 1930.

The Meslala, or Mslala, is said to be a fine, large, pickling olive. These cuttings were taken from trees selected for the

87439 to 87445—Continued.

quality and size of crop in olive orchards of the Arabs in the Zerhom region.

87439. No. 3.
87440. No. 15.
87441. No. 4.
87442. No. 13.
87443. No. 14.
87444. No. 12.
87445. No. 16.

87446 and 87447. VITIS VINIFERA L. Vitaceae. European grape.

From Tientsin, China. Plants purchased from Lukashik & Sons, First Mail Order Seed House. Received April 22, 1930.

87446. No. 1. Chinese table grape.
87447. No. 2. Chinese table grape.

87448. CHONDRILLA sp. Cichoriaceae.

From Leningrad, Union of Socialistic Soviet Republics. Seeds presented by Dr. Victor Talanoff, Institute of Applied Botany. Received April 23, 1930.

From western China, crop of 1929. A herbaceous perennial related to chicory, which may have value as a rubber plant.

87449 to 87455. VITIS VINIFERA L. Vitaceae. European grape.

From Odessa, Little Russia, Union of Socialistic Soviet Republics. Cuttings presented by the Vineyard Experiment Station. Received April 23, 1930.

87449. *Alvarna*.
87450. *Chabach*.
87451. *Kabasma*.
87452. *Koptchak*.
87453. *Plavai*.
87454. *Rka-tzitel*.
87455. *Serektia*.

87456. SACCHARUM sp. Poaceae.

From Cuba. Cuttings collected by H. N. Vinall, Bureau of Plant Industry. Received April 23, 1930.

No. 7. A drought-resistant grass presented by Robert M. Grey, Harvard Botanic Gardens. Of possible value as forage in the Gulf States.

87457. FRAGARIA sp. Rosaceae. Strawberry.

From New Westminster, British Columbia, Canada. Plants presented by A. Keir. Received April 24, 1930.

Startler. An ever-bearing strawberry with smooth, bright-red fruits which look as though they had been varnished; the foliage does not grow as strong as Mastodon, nor are the plants quite so prolific, but the fruit ripens quicker and the flavor is better.

87458. SABAL sp. Phoenicaceae. Palm.

From St. Croix, Virgin Islands. Seeds presented by J. B. Thompson, director, experiment station. Received April 25, 1930.

87458—Continued.

A fan-leaved palm said to have come from the island of St. Thomas.

87459 to 87461.

From Urumia, Persia. Seeds presented by Jalil K. Hashimzade. Received April 25, 1930.

87459. AMYGDALUS COMMUNIS L. (Prunus amygdalus Stokes). Amygdalaceae. Almond.

A variety grown locally.

87460. CUCUMIS MELO L. Cucurbitaceae. Melon.

A late melon with a tough skin, which is stored for winter use.

87461. CUCUMIS MELO L. Cucurbitaceae. Melon.

Madjdi. An early melon with a delicate skin, from Karkar, northern part of Persia.

87462 to 87465.

From Cuba. Seeds collected by H. N. Vinall, Bureau of Plant Industry. Received April 25, 1930.

87462. ARECA sp. Phoenicaceae. Palm.

No. 8. April 14, 1930. Harvard Botanic Garden. A pinnate-leaved palm said to have come from the Philippine Islands.

87463. HIBISCUS SABDARIFFA L. Malvaceae. Roselle.

No. 9. April 14, 1930. Harvard Botanic Garden. Jamaica sorrel or Rozelle hemp. Said to be a substitute for spinach in the Tropics. For trial as greens.

87464. PANICUM MAXIMUM Jacq. Poaceae. Guinea grass.

A perennial erect bunch grass 4 to 6 feet high, with open spreading panicles of spikelets. It is a native of Africa, introduced into tropical America where it is cultivated for forage, furnishing pasture and green feed.

For previous introduction see No. 74464.

87465. VIGNA ANTILLANA (Urban) Fawcett and Rendle. Fabaceae. Cuban cowpea.

No. 6. A twining vine up to 20 feet long, with trifoliate leaves of ovate leaflets, and purplish flowers an inch across in racemes 4 to 6 inches long. It is native to the West Indies.

87466 to 87469.

From Canberra, Australia. Seeds presented by A. McTaggart, Plant Introduction Officer, Council for Scientific and Industrial Research, Division of Plant Industry. Received April 25, 1930.

87466. LOTUS ANGUSTISSIMUS L. Fabaceae.

An upright, slender-stemmed, leguminous annual, about a foot high, with yellow flowers.

For previous introduction see No. 73393.

87467. LOTUS AUSTRALIS Andrews. Fabaceae.

A perennial legume, shrubby at the base and about 2 feet high, resembling

87466 to 87469—Continued.

L. corniculatus, except that the leaves are narrower and the flowers are usually pink. It is one of the few native pasture-producing legumes in Australia.

87468. TRIFOLIUM CERNUUM Brot. Fabaceae. **Clover.**

An annual clover, less than a foot high, with small heads of pale-purplish flowers. Native to Spain.

87469. TRIFOLIUM GLOMERATUM L. Fabaceae. **Clover.**

This clover is only useful because it grows fairly well in sour soils, low in phosphate content, when these soils first come into cultivation and before other clovers have established themselves.

For previous introduction see No. 53985.

87470 to 87473. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Ayr, Scotland. Tubers presented by Messrs. McGill & Smith (Ltd.). Received April 26, 1930.

Seedling potatoes.

87470. No. 8256.

87471. No. 7252.

87472. No. 42610.

87473. No. 42618.

87474. PARINARI MOBOLA Oliver. Rosa-ceae.

From Mount Silinda, Southern Rhodesia, Africa. Seeds presented by Dr. W. L. Thompson. Received April 26, 1930.

A handsome forest tree with dense evergreen foliage. The leaves are deep green above and white beneath, and the fruit, much like an olive in appearance, has an edible kernel in a very hard shell. The hard wood is used for furniture and building purposes.

For previous introduction see No. 50168.

87475 and 87476. RHODODENDRON MARIESII Hemsl. and Wils. Ericaceae.

From Leicester, England. Seeds purchased from Rev. J. Farnworth Anderson. Received April 26, 1930.

A deciduous shrub up to 8 feet high, native to central China, and related to *Rhododendron rhombicum*. The ovate leaves, 2 to 3 inches long, are silky pubescent on the midrib beneath, and the one to three rose-pink, broadly campanulate flowers are 1 to 2 inches across.

For previous introduction see No. 80306.

87475. [No data]

87476. 6907 M. V.

87477. CEIBA PENTANDRA (L.) Gaertn. Bombacaceae. Kapok.

From Bataan, Philippine Islands. Seeds received through the Bureau of Plant Industry, Department of Agriculture and Natural Resources, Manila. Received April 29, 1930.

Variety *Indica*. From trees grown at the Lamo Experiment Station, Bataan. This variety was introduced into the oriental Tropics in early times and is cultivated most extensively in Java, and next to Java

87477—Continued.

in the Philippine Islands. The trees do not attain the enormous size of those of the parent species in the American Tropics, and they are usually characterized by distinct whorls of horizontal branches. The down, borne in elliptical seed pods 4 to 8 inches long, is resilient, buoyant, and one of the best temperature insulators known. It is used in increasing quantities in mattresses, life preservers, and refrigerators.

87478 and 87479. ORYZA SATIVA L. Poaceae. Rice.

From Chiengmai, Siam. Seeds presented by Rev. William Harris, The Prince Royalis College. Received April 29, 1930.

The various forms of glutinous rice are the staple diet of the people of northern Siam. Such rice should be thoroughly steamed, after which it becomes soft and is very nutritious.

87478. *Kow lai*, striped rice.

87479. *Kou pha dong*, red stone rice.

87480. VITIS VINIFERA L. Vitaceae. European grape.

From Wiener Neustadt, Austria. Cuttings presented by Kober, Rohlfurt & Co. Received April 30, 1930.

Kober 5BB.

87481 and 87482. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Ayr, Scotland. Tubers presented by Messrs. McGill & Smith (Ltd.). Received April 30, 1930

Seedling potatoes.

87481. No. 2273.

87482. No. 14272.

87483 to 87488. MEDICAGO SATIVA L. Fabaceae. Alfalfa.

From Vienna, Austria. Seeds purchased from Doctor Rogenhofer, Austrian Seed Control Station, through H. L. Westover, agricultural explorer, Bureau of Plant Industry. Received April 30, 1930.

A collection of Austrian alfalfas.

87483. From Zistersdorf.

87484. From Ziersdorf.

87485. From Laa a. d. Thaya.

87486. From Drurnkrut.

87487. From Poysdorf.

87488. From Dobermannsdorf.

87489. CROTALARIA sp. Fabaceae.

From Mayaguez, Porto Rico. Seeds presented by H. T. Cowles, Acting Dean, University of Porto Rico. Received April 30, 1930.

A new crotalaria which may prove useful as forage or as an ornamental in the South. It came originally from Colombia or Peru.

87490 to 87495.

From Madagascar. Seeds presented by Dr. Henri Humbert, Algiers, Algeria. Received June 1, 1930.

87490. *DOMBEYA LBUCOMACRANTHA* Hochr. Sterculiaceae.

87490 to 87495—Continued.

A small evergreen tree 4 to 7 feet high, with gray hairy branches and densely hairy palmate-cordate leaves 3 or 4 inches long. The solitary, white, axillary flowers are about 2 inches across. Native to Madagascar, where it grows at altitudes between 4,500 and 6,000 feet among rocks in places free from lime.

87491. DODONAEA MADAGASCARIENSIS Radlk.
Sapindaceae. **Hopbush.**

A small, subtropical evergreen tree, eventually about 15 feet high, with small, unequally pinnate leaves composed of about 25 linear-lanceolate leaflets. The flowers and fruits are inconspicuous. Native to Madagascar, where the natives use it as a silkworm tree.

87492. MUSA FERRIERI Claverie. **Musa-**
ceae. **Banana.**

A wild banana from western Madagascar, which forms a large plant about 20 feet high, with a swollen trunk over 3 feet in girth. During the hot season the plant loses its foliage. The small cylindrical fruits, about 8 inches long, are scarcely edible because of the scanty, bitter flesh.

87493. MUSA sp. **Musaceae.** **Banana.**

A wild banana found in the hot humid forest at altitudes between 5,000 and 6,000 feet, on the shore of Lake Kiwu, Idjwi Island, central Africa.

87494. PITTOSPORUM sp. **Pittosporaceae.**

Humbert and Swingle No. 5711. An ornamental shrub from lower southeastern Madagascar, a region with a long, dry season and much sunshine.

87495. STEREOSPERMUM sp. **Bignoniaceae.**

An ornamental shrub, apparently not tolerating lime soils, from the western plains of Madagascar—a warm region with a long, dry season.

87496. BELOU MARMELOS (L.) Lyons
(*Aegle marmelos* Correa). **Ruta-**
ceae. **Bel.**

From Peradeniya, Ceylon. Seeds presented by T. H. Parsons, Curator, Royal Botanic Gardens. Received June 3, 1930.

A small spiny tree, originally a native of India, now commonly grown for its fruit in the low country of Ceylon and other tropical countries. The fruit is globular, with a hard, woody, green shell, and varies in size from that of an orange to a large melon. Within is a mass of doughy, aromatic pulp, intermingled with limp, glutinous substance which some people relish for its flavor. This is a well-known specific for dysentery, and is much used in native medicine.

For previous introduction see No. 43027.

87497 to 87519.

From Cuba. Seeds collected by T. A. Fennell at Harvard Botanic Garden, Soledad, Cienfuegos. Received May 5, 1930.

87497. ALBIZZIA MALACOCARPA Standl.
Mimosaceae.

No. 26. A beautiful tall tree having a crown of feathery leaves. Much used for shade in coffee and cocoa plantations.

87498. ARECA GLANDIFORMIS Lam. **Phoeni-**
caceae. **Palm.**

87497 to 87519—Continued.

No. 19. A slender, spineless, pinnate-leaved palm closely resembling *Linoma* (*Areca*) *alba*. It is native to the Molukka Islands.

For previous introduction see No. 77162.

87499. BARYXYLUM BRASILIENSE (L.)
Pierre. **Caesalpiniaceae.**

No. 34. A tree up to 80 feet high with bipinnate leaves of small leaflets and axillary or terminal racemes of small, yellow flowers. The orange-colored wood is elastic, tough, and durable and takes a fine polish. The tree is native to Central America.

87500. BARYXYLUM INERME (Roxb.)
Pierre (*Peltophorum ferrugineum*
Benth.). **Caesalpiniaceae.**

No. 36. A large handsome leguminous tree bearing large terminal spikes of bright-yellow flowers. A good shade tree.

87501. BELOU MARMELOS (L.) Lyons
(*Aegle marmelos* Correa). **Rutaceae.**
Bel.

No. 13. A heavy fruiting, pear-shaped variety.

For previous introduction see No. 87496.

87502. CALYPTROGYNE OCCIDENTALIS
(Swartz) G. Maza. **Phoeniceae.**
Palm.

No. 51. A beautiful and rare native palm with a straight, smooth stem sometimes reaching a height of 50 feet. The pinnate leaves are from 8 to 12 feet long.

87503. CANAVALIA PLAGIOSPERMA Piper.
Fabaceae.

No. 28. A luxuriant leguminous climber, used as a cover crop.

For previous introduction see No. 64511.

87504. CANAVALIA RUSIOSPERMA Urban.
Fabaceae.

No. 30. A large, climbing perennial with beautiful rose-crimson flowers.

For previous introduction see No. 59307.

87505. CASSIA NODOSA Buch.-Ham. **Caesal-**
pinaceae.

No. 43. *Pink and white shower.*

For previous introduction see No. 65732.

87506. CASSIA SPECTABILIS DC. **Caesal-**
pinaceae.

No. 9. A beautiful native leguminous tree bearing numerous terminal clusters of bright-yellow flowers.

87507. CLERODENDRUM ANAFENSE Britt.
and P. Wils. **Verbenaceae.**

No. 38. A Cuban tree 30 feet high, with obovate coriaceous leaves 2 to 4 inches long and clusters of white flowers an inch long.

For previous introduction see No. 77159.

87508. COPAIVA HYMENAEIFOLIA (Moric.)
Kuntze. **Caesalpiniaceae.**

87497 to 87519—Continued.

No. 48. *Quitebrahacha*. One of the hardest timber trees in Cuba, used for posts, bridges, etc., but nearly extinct as it is much prized by charcoal burners. The timber is very heavy and will sink in water. It grows near the coast.

87509. *CUPANIA AMERICANA* L. Sapindaceae.

No. 39. A Mexican shrub or tree 30 feet high, with compound leaves of oblong, crenate-serrate, pubescent leaflets, and panicles of greenish-white flowers.

87510. *ELADAGNUS PHILIPPENSIS* Perr. Elaeagnaceae.

No. 20. A very sweet-scented flowering shrub which grows to be 15 feet in diameter.

For previous introduction see No. 64762.

87511. *ESPADAEA AMOENA* A. Rich. Solanaceae.

No. 8. A native Cuban tree, very common along the seacoast. The black and yellow wood is very hard and durable, and the fruits are small and bright yellow.

87512. *HARRISIA ERIOPHORA* (Pfeiff.) Britton. Cactaceae.

No. 45. A tall, subcylindrical-stemmed cactus, native to Cuba. The large white flowers are nocturnal.

87513. *HIBISCUS ELATUS* Swartz. Malvaceae. Mountain rosemallow.

No. 55. A small, spreading tree with broadly cordate, entire leaves, and flowers 4 inches long which open primrose colored in the morning and, as the day advances, change to orange and deep red. It is native to the West Indies.

87514. *LUEHEA SPECIOSA* Willd. Tiliaceae.

No. 35. A shrub or small tree up to 50 feet high, with cordate, serrate leaves 4 to 10 inches long, pale beneath, and axillary racemes of large, showy white flowers 2 inches across. It is native to Cuba and Mexico.

87515. *MONTZUMA CUBENSIS* (Britt. and Wils.) Urban. Bombacaceae.

No. 53. A tree, native to Cuba, which grows 90 feet high; the broadly cordate, coriaceous leaves are 3 to 6 inches long; the small, yellowish-brown flowers are solitary or clustered.

87516. *OPERCULINA TUBEROSA* (L.) Meisn. (*Ipomoea tuberosa* L.). Convolvulaceae.

No. 11. A perennial, stout-stemmed, herbaceous vine, climbing to the tops of the tallest trees. The leaves are large and compound, with seven oblong leaflets; and three to six yellow flowers are borne on a long peduncle. The fruit is a membranous, globular capsule, about an inch long, containing two to four large seeds which are covered with short, black hairs. It is native to Brazil.

For previous introduction see No. 45888.

87517. *PSIDIUM POLYCARPON* Lamb. Myrtaceae. Guava.

No. 37. A relative of *P. guajava* to which it is very similar, although the leaves are larger and more pubescent;

87497 to 87519—Continued.

the fruit is of medium size and of good quality.

87518. *SOLANUM PIERREANUM* Pail. and Bois. Solanaceae.

No. 1. A small sweet pepper with bright-scarlet fruits which are ornamental as well as edible.

For previous introduction see No. 54695.

87519. *TRACHYLOBIUM VERRUCOSUM* (Gaertn.) Oliver. Caesalpiniaceae.

No. 6. The copal tree of Madagascar. The Bauhinialike flowers are large and white.

For previous introduction see No. 66246.

87520. *BAUHINIA MALABARICA* Roxb. Caesalpiniaceae.

From Manila, Philippine Islands. Seeds presented by P. J. Wester, Bureau of Agriculture, Manila. Received May 5, 1930.

A small, erect, bushy tree, with thick, rigid, deeply bifid, somewhat heart-shaped leaves 2 or 3 inches long. The small, white flowers are in dense, sessile, axillary clusters. The rather turgid, straight, firm, narrow pods are a foot long. Its native habitat is the mountainous country of northeastern India.

For previous introduction see No. 80042.

87521 and 87522.

From Miyazaki, Japan. Seeds and roots presented by P. Oshiumi, Agricultural Experiment Station, Miyazaki, Kawa-Minami Branch. Received May 5, 1930.

87521. *BOEHMERIA NIVEA* (L.) Gaud. Urticaceae. Ramie.

Roots of several varieties which have been improved by selection.

87522. *CANNABIS SATIVA* L. Moraceae. Hemp.

Seeds of several varieties which have been improved by selection.

87523 to 87636. *SOJA MAX* (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. Soybean.

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

87523. No. 3642. *Kazusa*, from the Tamai Branch Experiment Station, Saitama Ken, Japan, March 24, 1930. A medium-sized, oval, light-yellow bean with russet-brown hilum.

87524. No. 3806. From a bean-curd factory, Tokyo, February 12, 1930. A mixture of yellow and greenish-yellow varieties from Manchuria which are used in the manufacture of soybean curd.

87525. No. 4248. *Daizuohigu*, from the Ikimawa Ken Agricultural Experiment Station, Nawa, Ikimawa Ken, Japan, March 10, 1930. A medium-sized, yellowish green, oval bean with large, dark-brown hilum; used for green manure.

87523 to 87636—Continued.

87526 to 87529. From the Soya Agricultural Experiment Station, Makubetsu, Wakkanai, Hokushu, Japan, March 18, 1930.

87526. No. 4269. *Wase hadaka* (early smooth). A medium-sized, oval, yellow bean with brown hilum. This is an early nonpubescent variety.

87527. No. 4270. *Shimo shirazu*. A medium-sized, oval, yellow bean with brown hilum.

87528. No. 4271. *Kenashidaisu* (smooth). A medium-small, oval, yellow bean with brown hilum.

87529. No. 4272. *Oyachi No. 1*. A medium-sized, oval, yellow bean with brown hilum.

87530 and 87531. From the Sendai Miso Manufactory, Tokyo, Japan, March 18, 1930.

87530. No. 4273. *Seishin, Chosen*. A mixture of yellow-seeded varieties from Chosen which are used in the manufacture of Sendai miso.

87531. No. 4274. A mixture of yellow-seeded varieties from Manchuria which are used in the manufacture of Sendai miso.

87532 to 87621. From Chosen. Received through the Bureau of Industry, Government General, Keljo, March 10, 1930.

87532 to 87566. From Heian Nando.

87532. No. 4808. *Heijo*, from the Ryugakumen. A medium-sized, oval, glossy, yellow bean with pale hilum.

87533. No. 4809. *Yagi*, from Ryugakumen. A medium-sized, nearly round, glossy, yellow bean with large, russet-brown hilum.

87534. No. 4810. *Hokushu*, from Fusanmen. A medium-sized, oval, glossy, yellow bean with light-slate hilum.

87535. No. 4811. *Yotoku*, from Yotokumen. A large, nearly round, glossy, yellow bean with light russet-brown hilum.

87536. No. 4812. *Komuzonkon*, from Fusanmen; a very large, oval, glossy, black bean with yellow germ.

87537. No. 4813. *Otashu*, from Daidokomen. A large, oval, glossy, yellow bean with russet-brown hilum.

87538. No. 4814. *Oaishu*, from Daidokomen; a medium-oval, yellow bean with brown hilum.

87539. No. 4815. *Chonkeibi*, from Geunanmen; a medium-sized, oval, green bean with slate-black hilum and green germ.

87540. No. 4816. *Horabikon*, from Kosenmen; a medium-large, black, oval bean with black germ.

87541. No. 4817. *Shosekioshu* (small, red, yellow), from Kosenmen; a small, nearly round, cinnamon-brown bean which may be of value for sprouts.

87523 to 87636—Continued.

87542. No. 4818. *Sodarikon*, from Geunanmen. A large, nearly round, glossy, yellow bean with light-brown hilum.

87543. No. 4819. *Orukon*, from Geunanmen; a large, nearly round, glossy, yellow bean with light russet-brown hilum.

87544. No. 4820. *Kugatsuta* (September), from Bensenmen; a mixture of yellow-seeded varieties.

87545. No. 4821. *Zatrai pakute*, from Mosanmen; a medium-large, oval, glossy, yellow bean with pale hilum.

87546. No. 4822. *Komu chionorikon* (black mouth), from Kotomen. A medium-sized, oval, slightly flattened, glossy, black bean with yellow germ.

87547. No. 4823. *Ryuganta*, from Mozanmen. A medium-sized, nearly round, glossy, yellow bean with black hilum.

87548. No. 4824. *Kakujikon*, from Mozanmen. A medium-small, oval, deep glossy yellow bean with light-brown hilum.

87549. No. 4825. *Gishutansen*, from Shikeimen. A medium-sized, oval, glossy, yellow bean with pale hilum.

87550. No. 4826. *Kirugunkon*, from Shikeimen. A medium-small, oval, greenish-yellow bean with light russet-brown hilum and yellow germ.

87551. No. 4827. *Zangukon*, from Shikeimen. A medium-sized, oval, black bean marked with brown concentric rings.

87552. No. 4828. *Oryumokuta* (yellow dragon's eye), from Shikeimen. A medium-sized, oval, deep glossy yellow bean with large, dark-brown hilum.

87553. No. 4829. *Puruputei*, from Joganmen. A medium-large, oval, green bean with black hilum and green germ.

87554. No. 4830. *Pakute*, from Seisenmen. A medium-large, oval, yellow bean with pale hilum.

87555. No. 4831. *Purute*, from Seisenmen. A medium-large, oval, green bean with black hilum and green germ.

87556. No. 4832. *Kuruchon mettifukukon*, from Taikyumen. A medium-large, oval, glossy, black bean with yellow germ.

87557. No. 4833. *Ankeizajikon*, from Taikyumen. A medium-sized, oval, glossy, yellow bean with pale hilum.

87558. No. 4834. *Burukon*, from Taikokumen. A medium-sized, oval, slightly flattened, yellowish-brown bean.

87559. No. 4835. *Panta* (spotted bean), from Taikokumen. A medium-large, mottled green and black bean with black hilum and yellow germ.

87523 to 87636—Continued.

87560. No. 4836. *Norangutapari*, from Joganmen. A mixture of yellow and greenish-yellow varieties.
87561. No. 4837. *Sekishoku zunonikon*, from Dajimen. A small, nearly round, dark, glossy, brown bean.
87562. No. 4838. *Korubikukon*, from Sanwamen. A medium-small, oval, slightly flattened, yellowish-green bean with black hilum.
87563. No. 4839. *Pakuta*, from Junsenmen. A medium-large, oval, glossy, yellow bean with pale hilum.
87564. No. 4840. *Batakukon*, from Junsenmen. A medium-sized, oval, yellow bean with pale hilum.
87565. No. 4841. *Antashu*, from Junsenmen. A mixture of black, brown, yellow, and yellow and black beans.
87566. No. 4842. *Hinkon*, from Junsenmen. A very large, oval, yellow bean with light-brown hilum.
- 87567 to 87582. From Heian Hokudo.
87567. No. 4843. *Heihokuta*, from Tozanmen. A large, oval, glossy, yellow bean with pale hilum.
87568. No. 4844. *Hakkasota* (early white flower), from Unzanmen. A medium-sized, oval, glossy, yellow bean with brown hilum.
87569. No. 4845. *Kurumokuta* (black eye), from Kankamen. A medium-sized, oval, glossy, yellow bean slightly mottled with black, which has a black eye.
87570. No. 4846. *Shoryu pakute*, from Unzanmen. A medium-sized, oval, light-yellow bean with pale hilum.
87571. No. 4847. *Kokukaku*, from Gakusenmen. A medium-sized, nearly round, light-yellow bean with pale hilum.
87572. No. 4848. *Purute*, from Gohokumen. A medium-sized, oval, greenish-yellow bean with green germ.
87573. No. 4849. *Kurome souta* (early blackeye), from Shojomen. A medium-sized, nearly round, yellow bean with brown hilum.
87574. No. 4850. *Shoryushota* (small early), from Kabetsumen. A medium-sized, oval, light-yellow bean with a small brown spot at the end of the pale hilum. It is very similar to *Ito san* (No. 17268).
87575. No. 4851. *Kuromepakuta*, from the Hekidomen. A large, oval, deep glossy yellow bean with large black hilum.
87576. No. 4852. *Purute*, from Kankanmen. A medium-large, oval, yellowish-green bean with brown hilum and green germ.
87577. No. 4853. *Togomata*, from Rigenmen. A large, oval, slightly flattened, black bean with the testa split into fine white network.

87523 to 87636—Continued.

87578. No. 4854. *Komuten orukon*, from Gohomen. A medium-small, much flattened, black bean with yellow germ.
87579. No. 4855. *Kokuta*, from Teimen. A medium-large, nearly round, glossy, black bean.
87580. No. 4856. *Mikeikon*, from Hakuryomen. A large, oval, brown bean with yellow germ.
87581. No. 4857. *Noruntakubuchi*, from Shimen. A small, nearly round, light-yellow bean with russet-brown hilum.
87582. No. 4858. *Chumokuta* (mouse eye), from Rigenmen. A very small, cinnamon-brown bean which should be of value for sprouts.
- 87583 to 87605. From Kogendo.
87583. No. 4859. *Kongodairyu* (Kongo large), from Gakyomen. A large, oval, glossy, yellow bean with pale hilum.
87584. No. 4860. *Kongoshoryu* (Kongo small), from Katsumatsumen. A medium-sized, oval, glossy, yellow bean with pale hilum.
87585. No. 4861. *Ginta* (silver), from Isemen. A medium-sized, oval, light-yellow bean with russet-brown hilum.
87586. No. 4862. *Kirugunte* (sprout bean), from Shitomen. A medium-sized, oval, glossy, cloudy (brown) yellow bean with pale hilum.
87587. No. 4863. *Kyonenshirazu*, from Kinkamen. A medium-small, oval, light-yellow bean with pale hilum.
87588. No. 4864. *Keimeita* (cock's crown), from Shigomen. A medium-sized, oval, glossy, yellow bean with dark-brown hilum.
87589. No. 4865. *Ota* (yellow bean), from Hakumen. A very large, oval, glossy, yellow bean with slate-black hilum.
87590. No. 4866. *Mitta*, from Tetugenmen. A medium-sized, oval, glossy, yellow bean with pale hilum.
87591. No. 4867. *Kankota*, from Heikomen. A medium-sized, oval, light-yellow bean with pale hilum.
87592. No. 4868. *Zatta*, from Tonnaimen. A medium-large, oval, glossy, light-brown bean with pale hilum.
87593. No. 4869. *Saizu*, from Ikokumen. A small, nearly round, light-yellow bean with russet-brown hilum. It may be of value for sprouts.
87594. No. 4870. *Saizu*, from Seishimen. A very small, round, deep glossy yellow bean with black hilum. It should be an excellent variety for sprouting.
87595. No. 4871. *Purukon* (green bean), from Ojomen. A medium-small, oval, slightly flattened, greenish yellow bean with yellow germ. A few of the beans have a green germ.

87523 to 87636—Continued.

87596. No. 4872. *Purukonte* (green bean), from Gusenmen. A medium-large, oval, deep glossy green bean with slate-black hilum and a green germ.
87597. No. 4873. *Bamikon*, from Kiraimen. A very large oval, slightly flattened, glossy, yellowish-brown bean with the testa slightly split and the germ yellow.
87598. No. 4874. *Himazu* (castor-bean), from Hanpumen. A medium-large, oval, glossy, black bean with the testa more or less split in white markings, germ yellow.
87599. No. 4875. *Osokutota*, from Neietsumen. A medium-large, oval, dull-brown bean with yellow germ.
87600. No. 4876. *Komujonkon*, from Ojomen. A large round, flattened, glossy, black bean with yellow germ.
87601. No. 4877. *Banta* (late variety), from Neietsumen. A large, oval, glossy, yellow bean with pale-brown hilum.
87602. No. 4878. *Bamukon*, from Yunhakumen. A large, oval, slightly flattened, glossy, brown bean with yellow germ.
87603. No. 4879. *Banta* (spotted bean), from Seimen. A medium-sized, oval, glossy, yellow bean with black saddle.
87604. No. 4880. *Hanaalukon*; from Gusenmen. A large, oval, glossy, yellow bean with light-brown hilum; testa slightly split.
87605. No. 4881. From Ikokumen. A medium-sized, oval, cloudy, brownish-yellow bean with brown hilum.
- 87606 to 87612. From Kankyo Nando.
87606. No. 4882. *Oiarukon*, from Choyomen. A large oval, glossy, yellow bean with pale hilum.
87607. No. 4883. *Apenkon*, from Eickimen. A large, oval, light-yellow bean with pale hilum.
87608. No. 4884. *Tansenusudo*, from Hadomen. A large, oval, glossy, greenish-yellow bean with pale hilum and green germ.
87609. No. 4885. *Orugibara Teikon*, from Kosenmen. A medium-sized, oval, glossy, yellow bean with pale hilum.
87610. No. 4886. *Murukon*, from Sensaimen. A medium-sized, oval, glossy, light-yellow bean with pale hilum.
87611. No. 4887. *Rikankon*, from Shimo Kisenmen. A medium-sized, oval, yellow bean with pale hilum.
87612. No. 4888. *Tansenpakude*, from Tennanmen. A very large, oval, glossy, yellow bean with pale hilum.
- 87613 to 87621. From Kankyo Hokudo.
87613. No. 4889. *Oiarukon*, from Joshinguh. A very large, nearly round, glossy, yellow bean with pale hilum.

87523 to 87636—Continued.

87614. No. 4890. *Tsurunoko*, from Dojogun. A medium-sized, oval, glossy, yellow bean with pale hilum.
87615. No. 4891. *Shirobana* (large-white flower), from Dojogun. A very large, oval, glossy, yellow bean with pale hilum.
87616. No. 4892. *Usuao* (light green), from Kissengun. A medium-sized, oval, greenish-yellow bean with yellow germ.
87617. No. 4893. *Miyongaikon*, from Dojogun. A medium-large, oval, glossy, yellow bean with a pale hilum that has a brown speck at one end.
87618. No. 4894. *Chameshoryu*, from Dojogun. A medium-small, nearly round, glossy, yellow bean with russet-brown hilum.
87619. No. 4895. *Shtromeshoyru* (white eye, small) from Dojogun. A medium-sized, oval, glossy, yellow bean with pale hilum.
87620. No. 4896. *Kuromeshoryu* (small black eye), from Dojogun. A medium-sized, oval, glossy, yellow bean with black hilum.
87621. No. 4897. *Fukute*, from Kik-kaegun. A large oval, glossy, black bean with green germ.
- 87622 to 87636. From the Saitama Ken, Tamai Branch Experiment Station, Tamai, Japan, March 24, 1930.
87622. No. 5630. *Onihadaka* (naked devil). A medium-sized, oval, yellow bean with brown hilum.
87623. No. 5631. *Suzunari saki No. 1* (bunch saki). A medium-small, oval, yellow bean with brown hilum.
87624. No. 5632. *Sennarikimusume*. A medium-sized, oval, light-yellow bean with brown hilum.
87625. No. 5633. *Shirohana saki No. 1* (white flower saki No. 1). A medium-sized, oval, light-yellow bean with pale hilum.
87626. No. 5634. *Takiya No. 3*. A medium-small, oval, light-yellow bean with pale hilum.
87627. No. 5635. *Kimusume* (maid). A medium-sized, oval, glossy, light-yellow bean with brown hilum.
87628. No. 5637. *Keburi*. A medium-sized, oval, light-yellow bean with brown hilum.
87629. No. 5638. *Ashai* (morning sun). A medium-sized, oval, light-yellow bean with light-russet to brown hilum.
87630. No. 5639. *Ohizuka*. A medium-small, oval, glossy, yellow bean with brown hilum.
87631. No. 5640. *Kindaizu* (golden soybean). A medium-sized, oval, light-yellow bean with brown hilum.
87632. No. 5641. *Shirohadaka* (white smooth). A medium-sized, oval, light-yellow bean with brown hilum; a nonpubescent variety.
87633. No. 5643. *Kobata*. A medium-sized, oval, greenish-yellow bean with pale-brown hilum and yellow germ.

87523 to 87636—Continued.

87634. No. 5644. *Mizukuguri* (through the water). A medium-sized, oval, light-yellow bean with brown hilum.

87635. No. 5645. *Ogimame* (fan). A medium-small, nearly round, light-yellow bean with dark-brown hilum.

87636. No. 5646. *Maruganyaku* (pill). A small, oval, green bean with black hilum and green germ. It may be of value for sprouts.

87637. *AMYGDALUS PERSICA* L. (*Prunus persica* Stokes). Amygdalaceae.

Peach.

From Pretoria, Union of South Africa. Seeds presented by N. B. Davis, Estates Manager, Union Canning Co. (Ltd.), at the request of Prof. H. Clark Powell, Transvaal University College. Received May 12, 1930.

Transvaal yellow clingstone peaches.

87638. *PINUS PATULA* Schlecht. and Cham. Pinaceae. Pine.

Received April 30, 1930, without information.

A tree up to 75 feet high, with the upper part of the trunk red. The branches are long and slender, the slender drooping leaves are 6 to 12 inches long, and the persistent, dark-brown cones are reflexed. It is native to the central plateau region of Mexico.

87639 to 87644. *AVENA SATIVA* L. Poaceae. Oats.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 6, 1930.

Received through the Bureau of Industry, Government General, Keijo, March 10, 1930.

87639. No. 4521. From Keikido. *Endaku*. Small, slender, mixed black and white seeds, but mostly black.

87640. No. 5432. *Endaku*, from Heian Hokudo.

87641. No. 5458. *Endaku*, from Kogendo.

87642. No. 5487. *Victoria*, from Kankyo Nando.

87643. No. 5488. *Hozan zairai*, from Kankyo Nando.

87644. No. 5506. *White Belgian*, from Kankyo Hokudo.

87645 to 87702. *CHAETOCHELOA ITALICA* (L.) Scribn. (*Setaria italica* Beauv.). Poaceae. Millet.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

Received through the Bureau of Industry, Government General, Keijo, March 10, 1930.

87645 to 87648. From Zenra Nando.

87645. No. 4727. *Mochiawa*.

87646. No. 4728. *Nenjitsu*.

87647. No. 4729. *Tenjitsu*.

87648. No. 4730. *Moza*.

87645 to 87702—Continued.

87649. No. 4789. *Ohonguchongumi*, from Chusei Nando.

87650. No. 5009. *Awa zairai shu*, from Zenra Hokudo.

87651 to 87667. From Keisho Hokudo.

87651. No. 5201. *Fomuhauhongugari*.

87652. No. 5202. *Mongutangugori*.

87653. No. 5203. *Taubamagori*.

87654. No. 5204. *Nekoachi* (cat's-feet millet).

87655. No. 5205. *Nutsu lamuankochi*.

87656. No. 5206. *Kyonenshitrogu*.

87657. No. 5207. *Kaukoshu*.

87658. No. 5208. *Choencho*.

87659. No. 5209. *Burugumte*.

87660. No. 5210. *Sojyukorawa*.

87661. No. 5211. *Sekezu*.

87662. No. 5212. *Manshu*.

87663. No. 5213. *Shiroku*.

87664. No. 5214. *Gojunichishu* (50 days).

87665. No. 5215. *Takebaawa* (bamboo-leaf millet).

87666. No. 5216. *Mupureshu*.

87667. No. 5217. *Facho*.

87668. No. 5270. *Awa*, from Keisho Nando.

87669. No. 5293. *Awa hendenhoanjoumi* (Italian millet), from Kokaido.

87670. No. 5500. *Shin*, from Kankyo Hokudo.

87671 to 87698. From Heian Nando.

87671. No. 5358. *Burukunteihoanchomi*.

87672. No. 5359. *Hintehoanchiyo*.

87673. No. 5360. *Akagukishato*.

87674. No. 5361. *Shivogukishato*.

87675. No. 5362. *Ohongutongumi*.

87676. No. 5363. *Akanozo*.

87677. No. 5364. *Kiitongumi*.

87678. No. 5365. *Gofjikoku* (25 bushel).

87679. No. 5366. *Mejizo*.

87680. No. 5367. *Kokaido*.

87681. No. 5368. *Shoshi*.

87682. No. 5369. *Beikokushu*.

87683. No. 5370. *Karuzo*.

87684. No. 5371. *Awa*.

87685. No. 5372. *Parizo*.

87686. No. 5373. *Moreizo*.

87687. No. 5374. *Keizo*.

87688. No. 5375. *Tatsuokashu*.

87689. No. 5376. *Muruchari*.

87690. No. 5377. *Orumusokui*.

87691. No. 5378. *Banguchizo*.

87692. No. 5379. *Keimizo*.

87693. No. 5380. *Zukorichiyama*.

87645 to 87702—Continued.

87694. No. 5381. *Nongugamuzo*.
 87695. No. 5382. *Kozanguzo*.
 87696. No. 5383. *Meikiruzo*.
 87697. No. 5384. *Hintei*.
 87698. No. 5385. *Toyajizo*.
 87699 and 87700. From Heian Hokudo.
 87699. No. 5425. *Akaguki* (red straw).
 87700. No. 5426. *Shivoguki* (white straw).
 87701. No. 5452. *Awa*, Italian millet, from Kogendo.
 87702. No. 5480. *Itoko*, from Kankyo Nando.

87703 to 87718. ECHINOCHLOA CRUSGALLI EDULIS Hitchc. Poaceae.

Japanese millet.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

Received through the Bureau of Industry, Government General, Keijo, March 10, 1930. Varieties of barnyard millet.

87703. No. 4705. *Hie*, from Chusei Hokudo.
 87704. No. 4963. *Hie zairai shu* (barn grass, millet). A native variety from Zenra Hokudo.
 87705. No. 4964. *Hie zairai shu* (barn millet). A native variety from Zenra Hokudo.
 87706 to 87709. From Keisho Hokudo.
 87706. No. 5255. *Hie* (barn grass).
 87707. No. 5256. *Hie* (barn grass)
 87708. No. 5257. *Tadorakupii*.
 87709. No. 5259. *Chiyukupii*.
 87710. No. 5267. *Hie*, from Keisho Nando.
 87711. No. 5297. *Hie chanepii*, from Kokaido.
 87712 and 87713. From Heian Nando.
 87712. No. 5329. *Charupii*.
 87713. No. 5330. *Yunboushu*.
 87714. No. 5456. *Hie*, from Kogendo.
 87715. No. 5504. *Zairai shu*. A native variety, from Kankyo Hokudo.
 87716. No. 5430. *Hie aobie* (green barn grass), from Heian Hokudo.
 87717. No. 5485. *Tansen zairai* (native tansen), from Kankyo Nando.
 87718. No. 5258. *Zazeri*, from Keisho Hokudo.

87719 to 87735. FAGOPYRUM ESCULENTUM Moench. Polygonaceae.

Buckwheat.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

Received through the Bureau of Industry, Government General, Keijo, Chosen, March 10, 1930.

87719 to 87735—Continued.

87719. No. 4795. *Soba*, from Chusei Nando, Chosen.
 87720. No. 4999. *Zairai shu*, from Zenra Hokudo.
 87721. No. 5002. *Soba zairai shu*, from Zenra Hokudo.
 87722. No. 5199. *Maku baku*, from Keisho Hokudo.
 87723. No. 5200. *Hakaku soba*, from Keisho Hokudo.
 87724. No. 5263. *Kome soba*, from Keisho Hokudo.
 87725. No. 5274. *Soba* from Keisho Nando.
 87726. No. 5298. *Nalsu soba* (summer buckwheat), from Kokaido.
 87727 to 87732. From Heian Nando.
 87727. No. 5331. *Merumomiru*.
 87728. No. 5332. *Karumomiru*.
 87729. No. 5333. *Tsujo shu* (original variety).
 87730. No. 5334. *Heijo shu*.
 87731. No. 5335. *Zairai shu*.
 87732. No. 5431. *Soba*, from Heian Hokudo.
 87733. No. 5457. *Soba*, from Kogendo.
 87734. No. 5486. *Kozan zairai*, from Kankyo Nando.
 87735. No. 5505. *Nagano*, from Kankyo Hokudo.

87736 to 87743. GOSSYPIUM spp. Malvaceae. Cotton.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

Received through the Bureau of Industry, Government General, Keijo, March 10, 1930.

- 87736 and 87737. GOSSYPIUM HIRSUTUM L. Upland cotton.
 87736. No. 4907. *Zairai shu*, from Chusei Nando.
 87737. No. 5266. *Rikuchi men*, from Keisho Nando.
 87738 to 87742. GOSSYPIUM NANKING Meyen.
 87738. No. 4906. *Rikuchi men*, from Chusei Nando.
 87739. No. 5154. *Wato zairai shu*, from Keisho Hokudo.
 87740. No. 5155. *Wato zairai*, from Keisho Hokudo.
 87741. No. 5299. *Wato*, from Kokaido.
 87742. No. 5438. *Wato*, white cotton from Heian Nando.
 87743. GOSSYPIUM sp.
 No. 5156. *Wato zairai shu*, from Keisho Hokudo.

87744 to 87783. HORDEUM VULGARE COELESTE L. Poaceae.

Six-rowed barley.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural

87744 to 87783—Continued.

explorers, Bureau of Plant Industry. Received May 6, 1930.

Received March 10, 1930, through the Bureau of Industry, Government General, Keijo.

87744 to 87751. Originally from Zenra Nando.

87744. No. 4759. *Hadaka mugi.*

87745. No. 4760. *Hadaka mugi.*

87746. No. 4761. *Sarutongu pori.*

87747. No. 4762. *Hadaka mugi.*

87748. No. 4763. *Changuosaru pori.*

87749. No. 4764. *Hadaka mugi.*

87750. No. 4765. *Hadaka mugi.*

87751. No. 4766. *Kozan.*

87752. No. 4791. *Hadaka mugi*, from Chusei Nando.

87753. No. 5058. *Uosaru pori.*

87754. No. 5059. *Tongusaru pori.*

87755. No. 5060. *Hadaka mugi.*

87756. No. 5061. *Hadaka mugi.*

87757. No. 5062. *Hadaka mugi.*

87758. No. 5063. *Hadaka mugi.*

87759. No. 5064. *Hadaka mugi.*

87760. No. 5065. *Hadaka mugi.*

87761. No. 5066. *Hadaka mugi.*

87762. No. 5067. *Tonsaru pori.*

87763. No. 5068. *Tonsaru pori.*

87764. No. 5069. *Tonsaru pori.*

87765. No. 5070. *Hadaka mugi.*

87766. No. 5071. *Dohadaka.*

87767. No. 5072. *Onihadaka.*

87768. No. 5073. *Hakudo.*

87769 to 87777. From Keisho Hokudo.

87769. No. 5243. *Haru maki shu.*

87770. No. 5244. *Aki maki shu.*

87771. No. 5245. Seed appears to have a slight bluish cast.

87772. No. 5246. *Waseshu*, an early variety.

87773. No. 5247. *Saru bori.*

87774. No. 5248. *Hegachi hadoka.*

87775. No. 5249. *Shemabara.*

87776. No. 5250. *R o k k a k u d o mugi* (hexagon naked barley).

87777. No. 5251. *Sojikubaku* (early season).

87778. No. 5268. *Hadaka mugi*, from Keisha Nando.

87779. No. 5292. *Hadaka mugi*, from Kokaïdo, Chosen.

87780 to 87782. From Heian Nando.

87780. No. 5387. *Hadaka mugi* (naked barley).

87781. No. 5388. *Norangu bori.*

87782. No. 5389. *Zairaiyojo.*

87783. No. 5451. *Hakada mugi*, from Koendo, Chosen.

87784 to 87844. HORDEUM VULGARE PAL-LIDUM Seringe. Poaceae.**Six-rowed barley.**

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

Received March 10, 1930, through the Bureau of Industry, Government General, Keijo, Chosen.

87784 to 87789. From Zenra Nando, Chosen.

87784. No. 4767. *Warabe.*

87785. No. 4768. *Mura mugi.*

87786. No. 4769. *Nuru pori.*

87787. No. 4771. *Tong pori.*

87788. No. 4772. *Baitori.*

87789. No. 4773. *Baitori.*

87790 to 87798. From Zenra Hokudo, Chosen.

87790. No. 5038. *Tongu katsu pori.*

87791. No. 5039. *Uotongu pori.*

87792. No. 5040. *Omugi zairai shu.*

87793. No. 5043. *Omugi zairai shu.*

87794. No. 5046. *Noru bori.*

87795. No. 5048. *Omugi zairai shu.*

87796. No. 5050. *Omugi zairai shu.*

87797. No. 5053. *Shun baku* (spring barley).

87798. No. 5054. *Omugi zairai shu.*

87799 to 87833. From Keisho Hokudo, Chosen.

87799. No. 5164. *Haru maki shu* (spring sown).

87800. No. 5165. *Okimaki shu* (fall sown).

87801. No. 5166. *Okimaki mugi.*

87802. No. 5167. *Omugi.*

87803. No. 5168. *Okimaki shu* (fall sown).

87804. No. 5169. *Denrai baku.*

87805. No. 5170. *Omugi.*

87806. No. 5171. *Omugi.*

87807. No. 5172. *Omugi.*

87808. No. 5173. *Subaku.*

87809. No. 5174. *Shiuka kushu* (Chinese variety).

87810. No. 5175. *Obaku.*

87811. No. 5176. *Omugi.*

87812. No. 5177. *Nurun bori.*

87813. No. 5178. *Horu O mugi* (spring barley).

87814. No. 5179. *Horu maki shu* (spring barley).

87815. No. 5180. *Tongu bori.*

87816. No. 5181. *Akimaki mugi.*

87817. No. 5182. *Dobaku.*

87818. No. 5183. *Norangu bori.*

87819. No. 5184. *Keiroku.*

87820. No. 5185. *Chiyorure bori.*

87784 to 87844—Continued.

87821. No. 5186. *Dobaku*.
 87822. No. 5187. *Bomu bori*.
 87823. No. 5188. *Sanbaku*.
 87824. No. 5189. *Nuru bori*.
 87825. No. 5190. *Bai tori*.
 87826. No. 5191. *Neudo baku*.
 87827. No. 5192. *Tongu bori*.
 87828. No. 5193. *Nuru bori*.
 87829. No. 5194. *Rokkaku tongu bori*.
 87830. No. 5195. *Nuru bori*.
 87831. No. 5196. *Kenroku*.
 87832. No. 5197. *Tongu bori*.
 87833. No. 5198. *Kocau baku*.
 87834. No. 5276. *Omugi*, from Keisho Nando.
 87835. No. 5290. *Omugi kauru pori*, from Kokaido.
 87836 to 87840. From Heian Nando, Chosen.
 87836. No. 5396. *Harumaki zairai shu* (spring sown).
 87837. No. 5397. *Mekumo bori*.
 87838. No. 5398. *Harumaki rokkaku* (spring sown, hexagon).
 87839. No. 5399. *Karu bori*.
 87840. No. 5400. *Noru bori*.
 87841. No. 5424. *Zairai omugi* (native barley), from Heian Hokudo.
 87842. No. 5449. *Omugi*, from Kogeu-do, Chosen.
 87843. No. 5478. *Se rokkoku* (hexagon), from Kankyo Nando.
 87844. No. 5499. *Kubi* (dog's-tail barley), from Kankyo Hokudo.
- 87845 to 87905. ORYZA SATIVA L. Poaceae. Rice.**
 From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.
 Received through the Bureau of Industry, Government General, Keijo, Chosen, March 10, 1930.
- 87845 to 87854. Paddy rice, from Chusei Nando, Chosen.
 87845. No. 4774. *Iaya shinriki*.
 87846. No. 4775. *Tama nishiki*.
 87847. No. 4776. *Kokura miyako*.
 87848. No. 4777. *Nishiki*.
 87849. No. 4778. *Naka shinriki*.
 87850. No. 4780. *Suzuki shinriki*.
 87851. No. 4781. *Omachi*.
 87852. No. 4782. *Ban shinriki*.
 87853. No. 4785. *Sekizanso*.
 87854. No. 4786. *Wase*.
 87855. No. 4787. *Annan so*. Upland rice, from Chusei Nando.
 87856. No. 4924. *Gohya kuso*. Paddy rice, from Zenra Hokudo.

87845 to 87905—Continued.

87857. No. 5269. *Suito*. Paddy rice, from Keisho Nando.
 87858. No. 5280. *Rikuto*. Upland rice, from Keisho Nando.
 87859 to 87861. Paddy rice, from Kokaido.
 87859. No. 5283. *Suito henode*.
 87860. No. 5284. *Suito yostugashira*.
 87861. No. 5285. *Suito hakuso*.
 87862. No. 5286. *Geisha girl*. Upland rice, from Kokaido.
 87863 to 87871. Paddy rice from Heian Nando.
 87863. No. 5311. *Hinode*.
 87864. No. 5312. *Kamenoo*.
 87865. No. 5313. *Taikyu*.
 87866. No. 5314. *Muso*.
 87867. No. 5315. *Nanto*.
 87868. No. 5316. *Aikoku*.
 87869. No. 5317. *Chikuso*.
 87870. No. 5318. *Adachiso*.
 87871. No. 5319. *Junanchorubei*.
 87872 to 87880. Upland rice, from Heian Nando.
 87872. No. 5320. *Junanmochi*. Glutinous.
 87873. No. 5321. *Asasa*.
 87874. No. 5322. *Oiran* (geisha girl).
 87875. No. 5323. *Yunboushu*.
 87876. No. 5324. *Mubonshu*.
 87877. No. 5325. *Komutongu teimamuzo*.
 87878. No. 5326. *Taikyu*.
 87879. No. 5327. *Rikuto*.
 87880. No. 5328. *Zotonguzo*.
 87881 and 87882. Paddy rice, from Heian Hokudo.
 87881. No. 5433. *Kamenoo*.
 87882. No. 5434. *Sekizan*.
 87883. No. 4784. *Yakuba shinriki*. Paddy rice, from Chusei Nando.
 87884 and 87885. Upland rice, from Heian Hokudo.
 87884. No. 5435. *Asaga*.
 87885. No. 5436. *Kaneko*.
 87886. No. 5437. *Konkobo*. Upland rice, from Heian Nando.
 87887 to 87897. Paddy rice, from Kogendo, Chosen.
 87887. No. 5459. *Nishiki*.
 87888. No. 5460. *Henode* (sun rice).
 87889. No. 5461. *Kamenoo* (tortoise tail).
 87890. No. 5462. *Tama nishiki*.
 87891. No. 5463. *Sekizan*.
 87892. No. 5464. *Iechinko*.
 87893. No. 5465. *Bakuso*.
 87894. No. 5466. *Rokutoto* (mung-bean rice).

87845 to 87905—Continued.

87895. No. 5467. *Rojinto* (old-man rice).
87896. No. 5468. *Hakusenso*.
87897. No. 5469. *Kaneko*. Upland rice, from Kogendo.
- 87898 to 87900. Paddy rice, from Kankyo Nando.
87898. No. 5489. *Kamenoo* (tortoise tall).
87899. No. 5490. *Hinode* (sunrise).
87900. No. 5491. *Wase Ouno* (Ouno's early).
87901. No. 5492. *Kaneko*. Upland rice, from Kankyo Nando.
- 87902 and 87903. Paddy rice, from Kankyo Hokudo.
87902. No. 5508. *Odashero No. 5*.
87903. No. 5509. *Ikashi wase*, an early variety.
- 87904 and 87905. Upland rice, from Kankyo Hokudo.
87904. No. 5510. *Honen wase* (large crop, early).
87905. No. 5511. *Kauto zairai*.
- 87906 to 87931. PANICUM MILIACEUM L. Poaceae. Proso.
- From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.
- Received March 10, 1930, through the Bureau of Industry, Government General, Keijo.
87906. No. 5503. *Indian millet*, from Kankyo Hokudo.
- 87907 to 87909. From Chusei Hokudo.
87907. No. 4596. *Yellow chichiangu*.
87908. No. 4597. *White chichiangu*.
87909. No. 4598. *Yellow chichiangu*.
87910. No. 5429. *Shirokibi*, from Heian Hokudo.
87911. No. 5455. *Kibi*, from Kodendo.
87912. No. 5484. *Tansen zairai*, from Kankyo Nando.
87913. No. 4268. *Mochikibi*, from Zenra Nando.
- 87914 to 87922. From Zenra Hokudo.
87914. No. 5074. *Kibi zairai shu*.
87915. No. 5075. *Kibi zairai shu*.
87916. No. 5076. *Mebuji changu*.
87917. No. 5077. *Kurokibi*.
87918. No. 5078. *Kibi zairai shu*.
87919. No. 5079. *Kibi zairai shu*.
87920. No. 5080. *Kibi zairai shu*.
87921. No. 5081. *Karasu kibi* (crow millet).
87922. No. 5082. *Kibi zairai shu*.
- 87923 to 87925. From Keisho Hokudo.
87923. No. 5252. *Shira cheasuki zangu*.
87924. No. 5253. *Su su* (Indian millet).

87906 to 87931—Continued.

87925. No. 5254. *Su su* (Indian millet).
87926. No. 5279. *Kibi*, from Keisho Nando.
87927. No. 5296. *Shiro kibi* (white Indian millet), from Kokido.
- 87928 to 87931. From Heian Nando.
87928. No. 5336. *Hinki zangu*.
87929. No. 5337. *Daruki zangu*.
87930. No. 5338. *Piku zangu*.
87931. No. 5339. *Zairai shu* (native variety).
- 87932 to 87977. PHASEOLUS spp. Fabaceae.
- From Japan and Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.
- 87932 to 87954. Received March 10, 1930, through the Bureau of Industry, Government General, Keijo.
- 87932 to 87938. PHASEOLUS ANGULARIS (Willd.) W. F. Wight. *Adsuki bean*.
87932. No. 5287. *Azuki ak amanu* (azuki red bean), from Kokaido.
87933. No. 5495. *Dainagon*, from Kankyo Hokudo. A round-oblong, deep-red bean with rather long, white hilum.
- 87934 to 87936. From Zenra Nando.
87934. No. 4743. *Tongukum patsu*. A medium-sized, brownish-red seed.
87935. No. 4744. *Muku patsu*.
87936. No. 4745. *Azaku*. A medium-sized, reddish-brown seed.
87937. No. 4990. *Conjunchi azuki* (50-day azuki), from Zenra Hokudo. A medium-sized, light-buff seed.
87938. No. 5281. *Patsu*. A medium-sized, reddish-brown seed from Keisho Nando.
87939. PHASEOLUS AUREUS Roxb. **Mung bean.**
- No. 5409. *Zairai shu*. A small, glossy, olive-green seed from Heian Nando.
- 87940 to 87956. PHASEOLUS ANGULARIS (Willd.) W. F. Wight. *Adsuki bean*.
- 87940 to 87948. From Heian Nando.
87940. No. 5411. *Kiwa patsu*. A medium-sized, mottled olive and gray seed.
87941. No. 5412. *Muru patsu*. A medium-large, red and white seed.
87942. No. 5413. *Tangu patsu*. A medium-sized, reddish-brown seed.
87943. No. 5414. *Hinmuru patsu*. A medium-sized, light-buff seed.
87944. No. 5415. *San patsu*. A medium-sized, reddish-brown seed.
87945. No. 5416. *Kokuhanshoku*. A medium-sized, mottled black and white seed.
87946. No. 5417. *Oru patsu*. A medium-sized, reddish-brown seed.

87932 to 87977—Continued.

87947. No. 5418. *Hakuzu shu*. A medium-sized, buff seed.
87948. No. 5419. *Akazu shu*. A medium-large, maroon seed.
87949. No. 5420. *Zairaiaka*. A medium-sized, maroon seed. From Heian Hokudo.
- 87950 to 87952. From Kogendo, Chosen.
87950. No. 5443. *Hakushoku* (white bean). Round to oblong, dull creamy white or buff, with a rather long, white hilum.
87951. No. 5442. *Akashoku* (red bean).
87952. No. 5444. *Kokushoku* (black bean).
87953. No. 5473. *Shonagon*. A medium-large, glossy, light-red seed. From Kankyo Nando.
87954. No. 5474. *Koshu*. A medium-large, glossy, bright reddish-brown seed. From Kankyo Nando.
- 87955 and 87956. From the Tamai Branch Experiment Station, Tamai Saitama Ken, Japan, March 24, 1930.
87955. No. 5647. *Dainagon azuki*. A medium-sized, maroon seed.
87956. No. 5648. *Chunagon azuki*. A medium-small, maroon seed.
- 87957 to 87977. Received March 10, 1930, through the Bureau of Industry, Government General, Keijo, Chosen.
- 87957 to 87967. PHASEOLUS AUREUS Roxb. Mung bean.
87957. No. 5288. *Rakutousau*, from Kokaldo. Dull-green seeds which are quite uniform in size.
87958. No. 5496. A native variety from Kankyo, Hokudo. Round, shiny, light-green seed with oblong, white hilum.
87959. No. 4738. *Dairokuto* (large mung bean), from Zenra Nando. Seeds are medium-small and dull green.
87960. No. 5273. *Rokuto*, from Keisho Nando. Medium-small, dull, light-green seed.
- 87961 to 87963. From Heian Nando.
87961. No. 5407. *Usanrokuto*. A mixture of green-seeded varieties.
87962. No. 5408. *Rokushokushu*. A medium-small, dull-green seed.
87963. No. 5410. *Chamurokuto*. A medium-small, dull-green seed.
87964. No. 5421. *Rokuto*, from Heian Hokudo. A small, glossy, green seed.
- 87965 and 87966. From Kogendo, Chosen.
87965. No. 5445. *Secchoku* (green bean). A dull-green bean with white hilum.
87966. No. 5446. *Hakushoku* (white or yellow bean). A shiny, creamy white bean with rather small, white hilum.
87967. No. 5475. *Hokusei zairai*, from Kankyo Nando.

87932 to 87977—Continued.

87968. PHASEOLUS CALCARATUS Roxb. Rice bean.
- No. 4742. *Nosekihosonasa*, from Zenra Nando. A medium-sized, red seed.
- 87969 to 87977. PHASEOLUS VULGARIS L. Common bean.
87969. No. 5497. *Kolemashi*, from Kankyo Hokudo. A small, oblong, white bean very much like the American navy bean.
- 87970 to 87973. From Heian Nando.
87970. No. 5403. *Zamame*.
87971. No. 5404. *Kokushu*. A black field bean.
87972. No. 5405. *Uzura* (quail).
87973. No. 5406. *Akashu* (red bean).
87974. No. 5422. *Uzura* (quail), from Heian Hokudo.
87975. No. 5447. *Saito*. A rather small, oblong, brownish-yellow field bean from Kogendo.
- 87976 and 87977. From Kankyo Nando.
87976. No. 5476. *Kotenashi*. Large quantities of this white (navy) bean were sent to the United States during the war. It is said to be one of the best white field beans.
87977. No. 5477. *Uzura* (quail).
- 87978 to 88024.
- From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.
- Received March 10, 1930, through the Bureau of Industry, Government General, Keijo.
- 87978 to 87986. PISUM SATIVUM L. Fabaceae. Pea.
- 87978 and 87979. From Zenra Nando.
87978. No. 4724. *Furansu*.
87979. No. 4725. *Endo*.
87980. No. 5129. *Endo*, from Zenra Hokudo.
87981. No. 5277. *Endo*, from Keisho Nando.
87982. No. 5289. *Osaya endo* (large-pod pea), from Kakeido.
87983. No. 5386. *Endo*, from Heian Nando.
87984. No. 5423. *Tsurunashi*, from Heian Hokudo.
87985. No. 5448. *Endo*, from Kogendo. A brown pea.
87986. No. 5498. *Aolenashi*, from Kankyo Hokudo. A light pea-green pea.
87987. SECALE CEREALE L. Poaceae. Rye.
- No. 5507. *Rainugi*, from Kankyo Hokudo.
- 87988 to 88024. SORGHUM VULGARE Pers. Poaceae. Sorghum.
- 87988 to 87990. From Zenra Nando.

87978 to 88024—Continued.

87988. No. 4733. *Morokoshi*.
 87989. No. 4734. *Charususu*.
 87990. No. 4735. *Mochisangu*.
 87991. No. 4797. *Susukuru*, from Chusei Nando.
 87992 to 88008. From Zenra Hokudo.
 87992. No. 5083. *Bangumanguisusu*.
 87993. No. 5084. *Susu zairai shu*.
 87994. No. 5085. *Susu zairai shu*.
 87995. No. 5086. *Susu zairai shu*.
 87996. No. 5087. *Susu zairai shu*.
 87997. No. 5088. *Mebususu*.
 87998. No. 5089. *Susu zairai shu*.
 87999. No. 5090. *Susu zairai shu*.
 88000. No. 5091. *Mokutakususu*.
 88001. No. 5092. *Gurususu*.
 88002. No. 5093. *Susu zairai shu*.
 88003. No. 5094. *Susu zairai shu*.
 88004. No. 5095. *Susu zairai shu*.
 88005. No. 5096. *Susu zairai shu*.
 88006. No. 5097. *Susu zairai shu*.
 88007. No. 5098. *Bangu manguisusu*.
 88008. No. 5099. *Kanchisusu*.
 88009. No. 5271. *Morokoshi*, from Kesho Nando.
 88010. No. 5294. *Morokoshi noorusuku*, from Kokaido.
 88011 to 88016. From Heian Nando.
 88011. No. 5348. *Mozakususu*.
 88012. No. 5349. *Merususu*.
 88013. No. 5350. *Tsungumengususu*.
 88014. No. 5351. *Mippotsujoshu* (thick spike, common).
 88015. No. 5352. *Meisenhakushu* (Meiseu white).
 88016. No. 5353. *Zairai shu* (native variety).
 88017. No. 5427. *Kesaku*, from Heian Hokudo.
 88018. No. 5481. *Eikozairai*, from Kankyo Nando.
 88019 to 88022. From Keisho Hokudo.
 88019. No. 5158. *Mochisusu*.
 88020. No. 5159. *Eumokususu*.
 88021. No. 5160. *Waseshu*.
 88022. No. 5161. *Momokususu*.
 88023. No. 5453. *Morokoshi*, from Kogendo, Chosen.
 88024. No. 5501. *Zairai shu*, from Kankyo Hokudo.

88025 to 88068. TRITICUM AESTIVUM L.
 (*T. vulgare* Vill.). Poaceae.

Common wheat.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

Received through the Bureau of Industry, Government General, Keijo, Chosen, March 10, 1930.

88025 to 88068—Continued.

- 88025 to 88027. From Zenra Nando.
 88025. No. 4739. *Imumiru*.
 88026. No. 4740. *Komugi*.
 88027. No. 4741. *Komugi*.
 88028 and 88029. From Chusei Nando.
 88028. No. 4800. *Eshima*.
 88029. No. 4901. *Tonmururu*.
 88030 to 88033. From Zenra Hokudo.
 88030. No. 5022. *Utongumiru*.
 88031. No. 5023. *Komugi zairai shu* (wheat, native variety).
 88032. No. 5025. *Komugi zairai shu*.
 88033. No. 5032. *Komugi zairai shu*.
 88034 to 88058. From Keisho Hokudo.
 88034. No. 5218. *Orumiru*.
 88035. No. 5219. *Burugunmiru*.
 88036. No. 5220. *Soubaku*.
 88037. No. 5221. *Komugi*.
 88038. No. 5222. *Soubaku*.
 88039. No. 5223. *Komugi*.
 88040. No. 5224. *Komugi zairai shu*.
 88041. No. 5225. *Wase komugi* (early wheat).
 88042. No. 5226. *Komugi*.
 88043. No. 5227. *Zairai komugi* (native wheat).
 88044. No. 5228. *Soubaku*.
 88045. No. 5229. *Komugi*.
 88046. No. 5230. *Komugi*.
 88047. No. 5231. *Komugi*.
 88048. No. 5232. *Komugi*.
 88049. No. 5233. *Soubaku*.
 88050. No. 5234. *Bomumiru*.
 88051. No. 5235. *Zairai komugi*.
 88052. No. 5236. *Ejima*.
 88053. No. 5237. *California*.
 88054. No. 5238. *Sarushirumiru*.
 88055. No. 5239. *Nutsumiru*.
 88056. No. 5240. *Potsumiru*.
 88057. No. 5241. *Cheamumiru*.
 88058. No. 5242. *Zairai komugi*.
 88059. No. 5272. *Miru*, from Keisho Nando.
 88060. No. 5291. *Komungi California*, from Kokaido.
 88061 to 88066. From Heian Nando.
 88061. No. 5390. *Namuzanmiru*.
 88062. No. 5391. *Nurumiru*.
 88063. No. 5392. *California*.
 88064. No. 5393. *Zairai shu*.
 88065. No. 5394. *Yuboushu*.
 88066. No. 5395. *Namumer*.
 88067. No. 5450. *Komugi*, from Kogendo.
 88068. No. 5479. *California*, from Kankyo Nando.

88069 to 88089.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

Received through the Bureau of Industry, Government General, Keijo, March 10, 1930.

88069 and 88070. *VIGNA SINENSIS* (Torrer) Savi. Fabaceae. Cowpea.

88069. No. 5401. *Tongubet*, from Helan Nando. A medium-sized, black seed.

88070. No. 5402. *Somusokui*, from Helan Nando. A medium-small, white seed with brown hilum.

88071 to 88089. *ZEA MAYS* L. Poaceae. Corn.

88071 to 88077. From Helan Nando.

88071. No. 5343. *Bei kopn shu* (American variety).

88072. No. 5346. *Norangungkunengui*.

88073. No. 5347. *Orukangunengui*.

88074. No. 5340. *Hinkangunengui*.

88075. No. 5341. *Okukangunengui*.

88076. No. 5344. *Charukongunengui*.

88077. No. 5345. *Tongu orukonnen-gui*.

88078. No. 5295. *Tomonroski sangau-nami*, from Kokaldo. A small, flinty, yellow grain.

88079. No. 5502. *Long fellow*, from Kankyo Hokudo.

88080 and 88081. From Zenra Hokudo.

88080. No. 5139. *Tomorokoshi*. A white flint corn with small grains.

88081. No. 5141. *Tomokoshi*. A white flint corn.

88082 and 88083. From Keisho Hokudo.

88082. No. 5163. *Mokususu*. White flint corn. The grains are more or less round.

88083. No. 5164. *Toumorokoshi*. A small-grained variety.

88084. No. 5275. *Toumorokoshi*, from Keisho Nando.

88085. No. 5428. *Koshoku zairai* (yellow native), from Helan Hokudo.

88086. No. 5454. *Toumorokoshi*, from Kogendo. A variety with roundish, white, flinty grains.

88087 and 88088. From Kankyo Nando.

88087. No. 5482. *Anpen zairai*.

88088. No. 5483. *Kozan zairai*.

88089. No. 5342. *Koshoku*, from Helan Nando.

88090. *VIGNA SESQUIPEDALIS* (L.) Frur-wirth. Fabaceae. Asparagus-bean.

From Cuba. Seeds collected by T. A. Fennell at Harvard Botanic Garden, Soledad, Cienfuegos. Received May 9, 1930.

No. 17. *Yard long pod* bean (Chinese summer bean). This is eaten as a green bean when the pods are young. It grows best in Cuba in summer and should do well in Florida, where there is no satisfactory summer bean.

88091. *ERYTHRINA BERTEROANA* Urban. Fabaceae. Coral tree.

From Mayaguez, Porto Rico. Seeds presented by T. B. McClelland, Senior Horticulturist, Porto Rico Agricultural Experiment Station. Received May 14, 1930.

A tropical tree, about 25 feet high, with pinnately trifoliate leaves and dense racemes of red pea-shaped flowers. It is native to Cuba.

88092 and 88093. *TRITICUM AESTIVUM* L. (*T. vulgare* Vill.). Poaceae. Common wheat.

From Australia. Seeds presented by the Melbourne Experimental Station. Received May 8, 1930.

88094 to 88103.

From the Union of Socialistic Soviet Republics. Seeds presented by Prof. K. Kvaratzkhelia, Abkhasian Agricultural and Forest Experiment Station, Sukhoun, Caucasus. Received May 9, 1930.

88094 to 88099. *AMYGDALUS* spp. Amygdalaceae.

88094 and 88095. *AMYGDALUS COMMUNIS* L. (*Prunus amygdalus* Stokes). Almond.

Collected in Turkmenia in the Kopet Dag Mountains.

88094. Variety *amara*.

88095. Variety *dulcis*.

88096. *AMYGDALUS LYCIOIDES* Spach.

Collected in the Kopet Dag Mountains.

88097. *AMYGDALUS PERSICA* L. Peach.

Collected in Turkmenia on the mountain Chardjouy, on the river Amua Daria.

88098. *AMYGDALUS PETUNNIKOWI* Litw.

Collected in the Chingan Mountains, Usbekistan.

88099. *AMYGDALUS SCOPARIA* Spach.

Collected in Turkmenia on the slopes of the Kopet Dag Mountains.

88100. *PISTACIA VERA* L. Anacardiaceae. Pistache.

From Turkmenia. Collected in the grove near the fort, Koushka.

88101. *PRUNUS ARMENICA* L. Amygdalaceae. Apricot.

From Aoul Koeshi near Ashabad.

88102. *PRUNUS CERASIFERA* Ehrh. Amygdalaceae. Myrobalan plum.

From Turkmenia. Collected in the Kopet Dag Mountains.

88103. *PUNICA GRANATUM* L. Punicaceae. Pomegranate.

From Kopet Dag Guen, Turkmenia.

88104. *OROXYLON INDICUM* (L.) Vent. Bignoniaceae.

East Indian trumpetflower.

From Manila, Philippine Islands. Seeds presented by P. J. Wester, Horticulturist, Bureau of Plant Industry, Department of Agriculture and Natural Resources, Manila. Received May 9, 1930.

88104—Continued.

A tropical Asiatic ornamental tree, 40 feet or less high, with glossy compound leaves 2 to 4 feet across, and terminal panicles of white or purple flowers. The large flat pods, up to 3 feet in length, contain winged seeds.

For previous introduction see No. 66255.

88105 to 88139.

From Cuba. Seeds collected by T. A. Fennell at Harvard Botanic Garden, Soledad, Cienfuegos. Received May 9, 1930.

88105. ALIBERTIA EDULIS A. Rich. Rubiaceae.

No. 2. A subtropical shrub or small tree up to 20 feet high, with lanceolate to ovate, coriaceous leaves 3 to 8 inches long; white, salverform flowers an inch across, and globose, yellow, berrylike fruits an inch in diameter, said to be edible but not agreeable in flavor. It is native to Central America and the West Indies.

88106. ARECA sp. Phoenicaceae. **Palm.**

No. 70. A striking, straight-stemmed, slender, pinnate-leaved palm.

88107. ARIKURYROBA SCHIZOPHYLLA (Mart.) Bailey (*Cocos schizophylla* Mart.). Phoenicaceae. **Cutleaf palm.**

No. 74. A slender, straight-stemmed, pinnate-leaved palm.

88108. CAESALPINIA SAPPAN L. Caesalpiniaceae. **Sappan.**

No. 56. A shrubby leguminous tree, native to India and the Malay Archipelago, which bears showy yellow flowers. The wood yields a red dye, and the bark is used for tanning. It is said to be an excellent hedge plant and to endure rather poor dry soils.

For previous introduction see No. 66182.

88109. CASSIA DIDYMOBOTRYA Fres. Caesalpiniaceae.

No. 58. An African shrub or small tree, 7 to 10 feet high, with finely divided leaves about a foot long, and numerous yellow flowers in erect racemes up to a foot in length.

For previous introduction see No. 59675.

88110. CITRUS LIMONIA × AURANTIFOLIA. Rutaceae. **Lemon-lime.**

No. 86. Scions of a large-fruited variety, originated by Mr. Grey.

88111. CITRUS SINENSIS × GRANDIS. Rutaceae. **Sweet grapefruit.**

No. 85. Bud wood of a hybrid originated by Mr. Grey by crossing the Washington Navel orange with grapefruit. Both plant and fruit have all the characteristics of grapefruit except that the fruit is as sweet as that of an orange.

88112. CORDIA GLABRA Cham. Boraginaceae.

No. 89. A spreading Cuban tree bearing numerous panicles of bright-orange, cherrylike, edible fruits. The fruit is made into a delicious and beautiful jelly. The tree is very decorative when in fruit.

88113. COUMAROUNA PANAMENSIS Pittier. Fabaceae.

88105 to 88139—Continued.

No. 59. A large tropical tree up to 150 feet high with alternate compound leaves made up of five to eight obliquely elliptic leaflets 6 to 12 inches long, loosely branching terminal panicles of large pink flowers, and flattened, elliptic, chocolate-brown fruits 2 to 3 inches long. It is native to the Canal Zone.

88114. FICUS SUBSCABRIDA Warb. Moraceae. **Fig.**

No. 4. A wide spreading Cuban tree reaching a height of 60 to 70 feet and a spread of 80 feet or more. The leaves are very similar to those of *Ficus elastica* in shape and thickness, but smaller. The fruit is eaten by pigs, bats, and other animals and birds.

88115. GENIPA AMERICANA L. Rubiaceae. **Genipa.**

No. 78. *Marmalade box.* A large stately tree, native to the American Tropics, growing 60 feet in height, with dark-green leaves a foot or more long. The edible fruits are about the size of an orange.

For previous introduction see No. 44183.

88116. GOSSYPIUM sp. Malvaceae. **Cotton.**

No. 57. A native brown perennial cotton.

88117. HETEROSPATHE ELATA Scheff. Phoenicaceae. **Palm.**

No. 18. A tall, unarmed palm, with a straight, slender stem and long pinnate leaves, growing in protected situations where the rainfall is evenly distributed. It is one of the most attractive and graceful palms and will make a good plant for the conservatory and possibly a good house palm.

88118. INODES CAUSIARUM O. F. Cook (*Sabal causiarum* Beccari). Phoenicaceae. **Porto Rico hat palm.**

No. 92. A Porto Rican palm 50 feet high, with a white trunk 2 feet thick and palmately divided leaves about 12 feet wide. Most of the palm-leaf hats made in Porto Rico are from the leaves of this tree.

For previous introduction see No. 77166.

88119. LATANIA LODDIGESII Mart. Phoenicaceae. **Palm.**

No. 22. A low spineless palm, native to Mauritius, with rounded, fan-shaped leaves 3 to 5 feet long, and pear-shaped fruits over 2 inches long.

For previous introduction see No. 68119.

88120. LICUALA SPINOSA Thunb. Phoenicaceae. **Palm.**

No. 72. A beautiful fan palm, native to the East Indies, with graceful stems 20 to 25 feet tall, produced in groups.

For previous introduction see No. 66226.

88121. LIVISTONA HOOGENDORPII Andre. Phoenicaceae. **Palm.**

No. 16. A tall Japanese palm with fan-shaped leaves 4 to 6 feet wide on spiny petioles, 3 to 5 feet long, red brown at the base and becoming olive green near the leaf. The leaves are made

88105 to 88139—Continued.

up of 10 to 12 plicate, pendulous segments with five to seven acute lobes at the apex.

For previous introduction see No. 46006.

88122. *LUCUMA SERPENTARIA* H. B. K.
Sapotaceae.

No. 25. A Cuban relative of the canistel (*Lucuma nervosa*) with yellow, oblate fruit about 3 inches in diameter. The flesh of the fruit is very similar both in taste and texture to that of the canistel. A medium-sized tree reaching a height of from 30 to 40 feet.

88123. *LYCOPERSICON ESCULENTUM* Mill.
Solanaceae. **Tomato.**

No. 75. A tropical hybrid tomato, developed by Mr. Grey, which bears good-sized fruit throughout the summer months. It should do well in Florida where there is no satisfactory summer tomato.

88124 to 88127. *MANGIFERA INDICA* L.
Anacardiaceae. **Mango.**

88124. No. 83. *Mammea*. Scions of a yellow-fruited variety, whose fruit is smaller but of a better quality than the Chino (No. 88126).

88125. No. 87. Mango hybrid. Bud wood of a hybrid between S, a native variety, and India, an East Indian type. This hybrid is said by Mr. Grey to be the best and latest mango he has seen.

88126. No. 80. *Chino*. Bud wood of a large-fruited mango, presumably an East Indian type, with fruit as large and nearly as good quality as the Haden. The fruit is green when ripe.

88127. No. 82. A seedling tree, presumably *Chino*, which is supposed to be an East Indian type. The green fruits are as large and nearly as good in quality as the Haden.

88128. *NORONHIA EMARGINATA* (Lam.) Thouars. Oleaceae.

No. 24. A large shrub or small tree with opposite evergreen, coriaceous, oblong, entire leaves and axillary clusters of fragrant yellowish flowers followed by edible globose, purple fruits about an inch in diameter. It is native to Madagascar.

88129. *PASSIFLORA VITIFOLIA* H. B. K.
Passifloraceae.

No. 69. A strong-growing passiflora with large scarlet flowers, which makes a very attractive ornamental. The vine is not attacked by nematodes or insects.

For previous introduction see No. 60356.

88130. *PHYLANTHUS EMBLICA* L.
Euphorbiaceae. **Nelli.**

No. 47. A small tree with slender branches bearing numerous linear, 2-ranked leaves about one-half inch long. The globose fruits are used as a purgative when raw or cooked to make an acid sauce. Native to tropical Asia.

For previous introduction see No. 52295.

88131. *PICRAMNIA PENTANDRA* Swartz
Simaroubaceae.

88105 to 88139—Continued.

No. 65. A small tree with compound leaves made up of five to nine oblong-ovate, shining leaflets 2 to 3 inches long, and pendulous racemes of small white flowers followed by ovoid red to dark-blue berrylike fruits. It is native to the West Indies.

88132. *POSOQUERIA MULTIFLORA* Lem.
Rubiaceae.

No. 95. A small tree with broadly cordate leaves and terminal cymes of large, tubular, white, very fragrant flowers. It is native to Brazil.

For previous introduction see No. 73821.

88133. *SECURIDACA DIVERSIFOLIA* (L.) Blake. Polygalaceae.

No. 60. A trailing or climbing shrub with thick, shining, oblong to ovate leaves 2 to 6 inches long and racemes of rose-colored flowers. It is native to Central America and the West Indies.

88134. *SYMPLOCOS SALICIFOLIA* Griseb.
Symplocaceae.

No. 71. A bushy shrub, not unlike a cestrum, with terminal clusters of white flowers, terminated by dark-purple fruit.

88135. *TERMINALIA MUELLERI* Benth.
Combretaceae.

No. 21. A large tree which resembles *T. saffordii*, but has slightly larger leaves and fruit. Its fruits are purple when ripe, instead of red as in *T. saffordii*.

88136. *TILMIA CARYOTAEOFOLIA* (H. B. K.) O. F. Cook (*Martinezia caryotaefolia* H. B. K.). Phoenicaceae. **Palm.**

No. 3. A beautiful, slender, straight-stemmed spiny trunked palm with bright orange-scarlet fruits borne in drooping racemes.

For previous introduction see No. 79559.

88137. *TRICHILIA HIRTA* L. Meliaceae.

No. 93. A shrub or tree up to 60 feet high, with pinnately compound leaves of obliquely ovate glabrous leaflets, and 11 to 21 panicles, 9 inches long, of greenish-yellow flowers. It is native to the West Indies and Mexico.

88138. *TRIOPTERIS JAMAICENSIS* L. Malpighiaceae.

No. 73. A low-growing woody vine with small purplish flowers.

88139. *WALLENNIA LAURIFOLIA* (Jacq.) Swartz. Myrsinaceae.

No. 66. A small evergreen tree, 25 to 30 feet high, with bright green, leathery leaves. The small white flowers and bright-red fruits are borne in terminal clusters. Native to Cuba. The seed was presented by J. G. Jack, of the Arnold Arboretum.

88140. *TRIFOLIUM RESUPINATUM* L.
Fabaceae. **Persian clover.**

From Persia. Seeds presented by Jalil K. Hashimzade, American Agricultural School, Rezaieh, Urumia. Received May 10, 1930.

From near Ispahan. A clover which is there cut seven times in a season.

For previous introduction see No. 86293.

88141 to 88146. MEDICAGO SATIVA L.
Fabaceae. Alfalfa.

From Madrid, Spain. Seeds presented by J. H. Ford, through J. Sidney Cates. Received May 13, 1930.

Señor Antonio Estaban de Faura, at the seed station of the Madrid Agricultural Station, says that the two alfalfas, *Aragon* and *Totona*, do not resist the parasite "cuscuta"; the *Mielga rustica* may resist better, but is mainly a wild growth and is not cultivated because it gives a smaller yield.

88141 to 88143. Purchased from Robustiano Diez Obeso.

88141. *Aragon*.

88142. *Mielga rustica*.

88143. *Totona*.

88144 to 88146. Purchased from J. Vey Sallettes.

88144. *Aragon*.

88145. *Mielga rustica*.

88146. *Totona*.

88147 to 88164.

From Victoria, Cameroon, Africa. Seeds presented by T. D. Maitland, Superintendent, Botanic Gardens. Received May 15, 1930.

88147. ACACIA SENEGAL (L.) Willd. Mimosaceae.

A tree widely distributed in tropical Africa and cultivated in India. It has pinnate leaves and long, dense, clublike racemes of tiny flowers bristling with long stamens. This plant yields the true gum arabic of commerce.

For previous introduction see No. 48064.

88148. CAJANUS INDICUS Spreng. Fabaceae. Pigeon pea.

An erect shrublike plant 4 to 6 feet high, which may prove useful in improving the soil and also as a fodder plant.

For previous introduction see No. 80167.

88149. CASSIA SOPHERA L. Caesalpinia-ceae.

A cosmopolitan tropical shrub 3 to 5 feet high with pinnately compound leaves made up of five to nine pairs of obliquely lanceolate leaflets and axillary and terminal racemes of yellow flowers.

88150. CRACCA VILLOSA PURPUREA (L.) Kuntze (*Tephrostia purpurea* Pers.). Fabaceae.

A purple-flowered, herbaceous perennial of low, spreading habit which is native to tropical Africa. The plant is useful as a cover crop and also as a green manure.

For previous introduction see No. 67966.

88151. CROTALARIA RETUSA L. Fabaceae.

An annual plant, a foot or more high, distributed throughout the Tropics of both hemispheres. The flowers, yellow streaked with purple, are in terminal racemes. For use as a cover crop.

For previous introduction see No. 64061.

88152. DIOCLEA REFLEXA Hook. f. Fabaceae.

88147 to 88164—Continued.

An ornamental, woody, climbing plant, up to 20 feet in length, with compound leaves composed of three thickish leaflets, and rather dense racemes, 4 to 6 inches long, of red flowers. The broad-oblong, leathery pod, 3 to 4 inches long, is densely covered with yellowish-gray silky hairs.

For previous introduction see No. 45619.

88153. DOLICHOS LABLAB L. Fabaceae. Hyacinth-bean.

A very dark-brown seeded variety of bush bean. It is said to be used as green beans, boiled in the pod, and also used when dried.

For previous introduction see No. 80509.

88154. GOSSYPIUM BARBADENSE L. Malvaceae. Sea-island cotton.

88155. INDIGOFERA GALEGOIDES DC. Fabaceae. Indigo.

A tall shrub with twiggy branches, compound leaves a foot long made up of 11 to 25 oblong, membranaceous leaflets 2 inches long, and short, dense racemes of pale-red flowers. It is native to southeastern Asia.

88156. LEBUCAENA GLAUCA (L.) Benth. Mimosaceae.

A shrub or tree up to 30 feet high with a smooth trunk, bipinnate leaves made up of four to eight pinnae bearing 10 to 20 pairs of narrowly lanceolate leaflets half an inch long, and globular heads of small, white flowers. The young branches are used as forage.

For previous introduction see No. 42539.

88157. MIMOSA PUDICA L. Mimosaceae. Sensitiveplant.

The well-known sensitiveplant of the Tropics, which is to be tested as green manure.

88158. MONODORA MYRISTICA (Gaertn.) Dunal. Annonaceae. Calabash nutmeg.

A handsome tropical evergreen tree bearing an abundance of large, fragrant, yellow and white flowers. These are followed by large fruits containing many oily seeds which are aromatic and used as a condiment by the natives of West Africa.

For previous introduction see No. 75281.

88159. MORINDA CITRIFOLIA L. Rubiaceae. India-mulberry.

An ornamental tropical shrub with large, white, juicy fruits.

For previous introduction see No. 73017.

88160. MUCUNA URENS Medic. Fabaceae.

A wide-climbing, woody vine with trifoliate leaves of ovate-oblong, papery leaflets 3 to 5 inches long and dense heads of sulphur-yellow flowers 2 inches across. It is native to Brazil and is distributed generally throughout the Tropics.

88161. OCHROCARPOS AFRICANUS Oliver. Clusiaceae.

A tropical tree up to 50 feet high with elliptic-oblong, coriaceous leaves 6 to 10

88147 to 88164—Continued.

inches long, axillary flowers 1 to 2 inches across, and large baccate fruits. It is native to tropical Africa.

88162. *PARKIA BIGLOBOSA* (Willd.) Benth. (*Parkia africana* R. Br.). Mimosaceae.

A tropical tree up to 50 feet high with bipinnate leaves made up of 14 to 30 pairs of pinnae each bearing 50 to 70 pairs of linear-oblong subauriculate leaflets half an inch long. The small red flowers are in dense globose heads and are followed by falcate pods 8 to 12 inches long which contain an edible pulp. It is native to tropical Africa.

88163. *RANDIA MACULATA* DC. Rubiaceae.

A much-branched shrub 10 to 15 feet high with obovate leaves 5 inches long, and funnel-shaped flowers 3 to 5 inches across, greenish purple outside and white with purple spots inside. It is native to tropical Africa.

88164. *VIGNA SINENSIS* (Torner) Savi. Fabaceae. Cowpea.

88165 to 88182. *NICOTIANA TABACUM* L. Solanaceae. Tobacco.

From the Union of Socialistic Soviet Republics. Seed presented by M. F. Fernovsky, Government Botanic Garden, Nikita, Yalta, Crimea. Received May 15, 1930.

88165. No. 336. *American.*

88166. No. 571. *American.*

88167. No. 572. *American.*

88168. No. 635. *American.*

88169. No. 617. *Dezekoj.*

88170. No. 679. *Dubek aja suluk.*

88171. No. 5. *Dubek bektemis.*

88172. No. 680. *Dubek gaspza.*

88173. No. 29. *Dubek ksanti.*

88174. No. 282. *Dubek.*

88175. No. 314. *Dubek.*

88176. No. 432. *Dubek.*

88177. No. 650. *Dubek.*

88178. No. 674. *Dubek.*

88179. No. 675. *Dubek.*

88180. No. 679. *Dubek.*

88181. No. 44. *Dubek nikita.*

88182. No. 193. *Persttchan.*

88183. *INODES NEGLECTA* (Beccari) O. F. Cook (*Sabal neglecta* Beccari). Phoenicaceae. Palm.

From Haiti. Seeds received without information, May 15, 1930.

A tree about 20 feet high with a smooth trunk, large fanlike leaves, and large, more or less drooping flower clusters.

For previous introduction see No. 42522.

88184. *UROCHLOA PULLULANS* Stapf. Poaceae. Grass.

From Southern Rhodesia, Africa. Seeds presented by J. M. Moubrey, through the Department of Agriculture, Salisbury,

88184—Continued.

Southern Rhodesia. Received May 16, 1930.

A perennial grass with branching stems 3 to 7 feet high, linear-lanceolate leaves 6 to 10 inches long, and an inflorescence made up of 5 to 10 dense flexuose racemes of small spikelets. It is native to tropical Africa and is said to be of value for pasture on dry saline soils.

88185 to 88188.

From Porto Rico. Seeds collected near Rio Piedras Experiment Station by H. N. Vinall, Bureau of Plant Industry. Received May 16, 1930.

88185. *CALOPOGONIUM ORTHOCARPUM* Urban. Fabaceae.

No. 3. A slender vine, somewhat woody below, 3 feet or more long, with hairy leaflets. The blue flowers are less than an inch long. Native to Cuba and Porto Rico.

For previous introduction see No. 38329.

88186. *GALACTIA STRIATA* (Jacq.) Urban. Fabaceae.

No. 4. A twining vine, 15 feet or more long, with ovate hairy leaflets about 2 inches long and purplish flowers less than an inch long. Native to the West Indies.

88187. *PHASEOLUS ADENANTHUS* G. Meyer.

No. 2. A perennial twining vine 20 feet or more long, with ovate leaflets and fragrant variegated flowers, white, yellow, and purple. Native to the West Indies.

For previous introduction see No. 41951.

88188. *TERAMNUS UNCINATUS* Swartz. Fabaceae.

No. 5. *Frijolillo peludo.* A slender tropical American leguminous vine, used as forage in Brazil and also in the Virgin Islands.

For previous introduction see No. 73395.

88189 to 88193. *SOLANUM TUBEROSUM* L. Solanaceae. Potato.

From the Union of Socialistic Soviet Republics. Tubers presented by Dr. P. S. Tgonin, Emizrasevsky Breeding Station, Moscow. Received May 24, 1930.

88189. No. 123.

88190. No. 146.

88191. No. 169.

88192. No. 179.

88193. No. 525.

88194. *FRAGARIA* SP. Rosaceae.

Strawberry.

From Erfurt, Germany. Plants purchased from Walker & Co. Received May 20, 1930.

Sonnenstrahl. Said to be derived from Steger and Laxton's *Noble.*

88195 and 88196. *MANIHOT ESCULENTA* Crantz (*M. utilisissima* Pohl.). Euphorbiaceae. Cassava.

88195 to 88196—Continued.

From Haiti. Cuttings procured by O. F. Cook, Bureau of Plant Industry, and brought to this country by W. S. Jenkins. Received April 8, 1930.

88195. A black variety.

88196. A white variety.

88197 to 88264.

From Tucuman, Argentina. Seeds presented by S. Venturi. Received May 17, 1930.

88197 to 88200. ACACIA spp. Mimosaceae.

88197. ACACIA ATRAMENTARIA Benth.

A small, stout, spiny tree, native to northwestern Argentina, with bipinnate leaves made up of 5 pairs of pinnae and 20 pairs of very small linear-oblong pinnulae. The flowers are in globose heads.

88198. ACACIA BONARIENSIS Gillies.

An almost glabrous tree with angular branches sparsely equipped with short recurved spines. The long, bipinnate leaves and branches are glabrous; the youngest leaflets and the peduncles are silky hairy, as are also the short, paniced flower spikes.

For previous introduction see No. 48036.

88199. ACACIA MACRACANTHA Humb. and Bonpl.

A low thorny tropical tree with a depressed crown, large compound leaves, and yellow flower heads. Native to northern South America.

For previous introduction see No. 74132.

88200. ACACIA VISCO Lorentz.

An Argentina acacia, sparsely armed with recurved spines. The smooth sessile flowers, with numerous long stamens, form scythe-shaped legumes over an inch in width. The leaves are pinnately compound. The striped walnut-colored wood is hard, durable, and highly valued for its resistance to moisture and is used for all kinds of cabinetwork.

For previous introduction see No. 48068.

88201. ACALYPHA VARIABILIS Klotzsch. Euphorbiaceae.

A low tropical shrub, native to Brazil, with short thick stems, ovate acute leaves, and inconspicuous flowers in small slender spikes.

88202. ACNISTUS LORENTZII Dammer. Solanaceae.

A large shrub or tree with ovate or ovate-lanceolate hairy leaves about 6 inches long, and funnel-shaped flowers half an inch across in small clusters. It is native to Argentina.

88203. ALVARADOA AMORPHOIDES Leibm. Simaroubaceae.

Plumajillo. A small tree about 25 feet high, which produces an abundance of white flowers in January.

For previous introduction see No. 50652.

88204 and 88205. AMPHILOPHIUM spp. Bignoniaceae.

88197 to 88264—Continued.

The Amphilophiums are woody vines with opposite, trifoliate leaves and terminal panicles of large, purple, bell-shaped flowers. They are native to South America.

88204. AMPHILOPHIUM sp.

88205. AMPHILOPHIUM sp.

88206. ARISTOLOCHIA ESPERANZAE Kuntze. Aristolochiaceae.

A tender climber from Paraguay, closely related to *Aristolochia gibertha*. Its large brown and yellow flowers differ from those of the latter in the relatively larger upper lip and narrower lower lip of the flower.

88207. EXOLOBUS PATENS FOUR. Asclepiadaceae.

A shrubby perennial with hairy stems and branches, cordate-oval leaves, 2 or 3 inches long, and rather showy white flowers 1 to 2 inches across. Native to southern Brazil.

88208. ASPIDOSPERMA QUEBRACHO-BLANCO Schlecht. Apocynaceae.

Quebracho-blanco.

A graceful tree up to 75 feet high with alternate, mostly entire leaves and small, yellowish flowers followed by flat woody pods containing thin, circular, winged seeds nearly 3 inches across. It is native to Argentina.

88209. BAUHINIA FORFICATA Link. Caesalpiniaceae. *Bell bauhinia.*

A thorny shrub with cordate leaves divided from the apex nearly to the middle, and terminal and axillary racemes of bell-shaped, cream-colored flowers. It is native to Brazil.

88210. BLEPHAROCALYX GIGANTEUS Lillo. Myrtaceae.

A subtropical tree, up to 90 feet high, common in the thickets of Tucuman, Argentina, with opposite branches and leaves. The latter are entire, oblong, papery, and smooth. The small white flowers appear in axillary clusters.

88211. BOCCONIA FRUTESCENS L. Papaveraceae.

A large showy shrub 10 feet in height, with very large attractive leaves which are deeply lobed and pale beneath. The greenish-yellow flowers are borne in large pendent panicles, often a foot long.

For previous introduction see No. 64913.

88212. BOEHMERIA CAUDATA Swartz. Urticaceae.

A tall shrub or small tree up to 15 feet high with ovate-lanceolate, closely crenate leaves 6 to 10 inches long, pubescent beneath, and long, nodding, spikelike racemes of greenish flowers. It is native to tropical America.

88213. BOMAREA ROSEA (Ruiz and Pav.) Herb. Amaryllidaceae.

A herbaceous plant with elongated stems bearing thin lax oblong leaves 4 inches long and umbels of funnel-shaped flowers 1 inch long, having the outer segments pale red tipped with green and the inner ones greenish yellow. It is native to Peru, Bolivia, and Argentina.

88197 to 88264—Continued.

88214. *CAESALPINIA MELANOCARPA* Griseb. Caesalpinaceae.

Guayaquil. A handsome and useful tropical timber tree with hard, dark-red wood which in many respects resembles teak. It is of wide-spreading habit, with attractive, doubly compound leaves and clusters of small, yellow flowers. Native to Argentina.

88215. *CASSIA EXCELSA* Schrad. Caesalpinaceae.

A shrub or small tree 20 to 30 feet high, with compound leaves composed of 10 to 20 pairs of oblong-elliptic leaflets about an inch long. The yellow flowers are in large axillary racemes. Native to western and northern Brazil.

88216. *CASTELA COCCINEA* Griseb. Simaroubaceae.

A rigid shrub 6 feet or more in height, with stout spines half an inch long, leathery oblong leaves less than an inch long, and small, red flowers. Native to northern Argentina.

88217. *CEPRELA LILLOI* C. DC. Meliaceae.

A tree up to a hundred feet high, with alternate, stiff, pinnate leaves a foot long composed of eight pairs of oblong-ovate leaflets about 4 inches long, and small, whitish flowers in panicles over a foot in length. Native to Tucuman, Argentina.

88218. *CELTIS TRIFLORA* Ruiz. Ulmaceae.

A Peruvian tree with solitary recurved spines, rigid broadly oblong leaves 3 to 5 inches long, small, greenish flowers, and brown, ovoid fruits nearly half an inch long.

88219. *CHAMISSOA ALTISSIMA* (Jacq.) H. B. K. Amaranthaceae.

A shrub with reclining stems 4 to 6 feet long, ovate to lanceolate leaves 3 to 8 inches long, and large panicles of greenish flowers. It is native to tropical America.

88220. *CHORISIA INSIGNIS* H. B. K. Bombacaceae.

The *palo borracho* of Argentina is a large tree with a bottle-shaped trunk sometimes 6 feet in diameter and spiny when young. The large, yellowish-white flowers are followed by dark-brown pods. This is one of the silk-cotton trees and is sometimes used as an avenue tree in Argentina.

88221. *CHORISIA SPECIOSA* St. Hil. Bombacaceae. Floss-silk-tree.

A handsome tree 20 feet high, abundant in Argentina and in the river Provinces of Paraguay. The boll is nearly 5 inches in diameter and 6 inches long. The yellow fiber, called *Samahu* or *Samuy*, and similar to the best Javan kapok, is used to a limited extent for stuffing pillows and can be used commercially for life preservers, jackets, water wings, mattresses, etc. The tree has resisted 3° C. without injury to its flowers, although the bolls require hot sun.

For previous introduction see No. 54551.

88222. *CLEOME GIGANTEA* L. Capparidaceae. Spiderflower.

A shrubby plant 3 to 5 feet high with palmately compound leaves made up of

88197 to 88264—Continued.

seven oblanceolate leaflets, and greenish flowers having linear petals 2 inches long which adhere by their margins and open only on one side. It is native to tropical America.

88223. *CNICOTHAMNUS LORENTZII* Griesb. Asteraceae.

A handsome shrub about 20 feet high with thick branches, oval leaves about 5 inches long, and purple flowers in large solitary heads. Native to Tucuman, Argentina.

88224. *CONDALIA BUXIFOLIA* Reiss. Rhamnaceae.

A much-branched, tropical, evergreen shrub armed with numerous thorns over 2 inches long. The rather few obovate leathery leaves are about an inch long. The small, greenish flowers are succeeded by ellipsoidal drupes less than an inch in length. Native to Brazil.

88225. *CUPANIA VERNALIS* St. Hil. Sapindaceae.

A large tropical timber tree with alternate pinnate leaves and racemose clusters of small, greenish-white flowers. It is native to southern Brazil.

88226. *DINOSERIS SALICIFOLIA* Griseb. Asteraceae.

A subtropical shrub with thick tortuous branches, lanceolate leaves about 3 inches long, and pale-yellow flowers in large dense heads. Native to Tucuman, Argentina.

88227. *DODONAEA VISCOSA* (L.) Jacq. Sapindaceae. Hopbush.

A shrub up to 15 feet high with linear to oblanceolate viscid leaves 2 to 6 inches long and small, lateral corymbs of yellowish flowers. It is cosmopolitan in the Tropics, and in Australia the fruits are used in making yeast. The hard, brown, close-grained wood is used in India for engraving, turning, tool handles, and walking sticks.

88228. *DOLICHANDRA CYNANCHOIDES* Cham. Bignoniaceae.

A climbing shrub with slender branches, opposite leaves made up of two ovate leaflets and a 3-parted tendril at the end, and small clusters of tubular, red flowers 2 to 3 inches long. It is native to southern Brazil and Argentina.

88229. *DURANTA LORENTZII* Griseb. Verbenaceae.

A shrub 10 to 15 feet high with small coriaceous elliptic leaves serrate toward the apex, and terminal clusters of pale-lilac, tubular flowers. It is native to Argentina.

88230. *ENTEROLOBIUM TIMBOUVA* Mart. Mimosaceae. Timbo.

A large tree with bipinnate leaves made up of 2 to 5 pinnae each bearing 10 to 20 pairs of falcate-oblong leaflets, and large heads of greenish flowers followed by coriaceous kidney-shaped pods. It is native to Brazil.

88231. *EUPATORIUM HIEMALE* Lillo. Asteraceae.

A shrub or small tree up to 12 feet high, closely related to *E. lastophthalmum*. The reddish-violet flower heads are long stemmed, and the leaves are broadly rounded-ovate.

88197 to 88264—Continued.

88232. *EUPATORIUM ODORATUM* L. Asteraceae.

A vigorous shrub with long leaning or reclining stems, triangular, serrate leaves, and flattish corymbs of pale-blue to white flowers. Widely distributed in tropical America.

88233. *EKOLOBUS* sp. Asclepiadaceae.

A half-woody climber, native to Brazil, with hairy heart-shaped leaves and rather showy flowers in axillary racemes, followed by large egg-shaped, 5-ribbed fruits.

88234. *FAGARA COCQ* (Gill.) Kuntze. Rutaceae.

An unarmed shrub, native to northern Argentina, with unequally pinnate leaves composed of lanceolate-triangular leaflets and panicles of small greenish-white flowers.

88235. *FAGARA NARANJILLO* (Griseb.) Engler. Rutaceae.

Sacha Umon. A somewhat spiny tree with pinnate leaves about 5 inches long and whitish flowers in terminal triangular panicles 2 to 5 inches in diameter. Native to northern Argentina and Paraguay.

88236. *ILEX ARGENTINA* Lillo. Aquifoliaceae.

A tree up to 35 feet high, common in the foothills of Tucuman, Argentina. It is closely related to maté (*Ilex paraguariensis*), from which it differs in having leaves less leathery in texture and in a smaller inflorescence. The ellipsoidal fruits are very dark red or black.

88237. *HELIOCARPUS AMERICANUS* L. Tiliaceae.

A shrub or small tree up to 30 feet high with broadly cordate leaves, yellowish-white flowers, and bristly fruits. It is native to Mexico.

88238. *JACARANDA ACUTIFOLIA* Humb. and Bonpl. Bignoniaceae.

A smooth tree with bipinnate leaves made up of six to eight pairs of sharp-pointed entire leaflets, and terminal and axillary panicles of tubular, violet flowers. It is native to Peru.

88239. *JODINA RHOMBIFOLIA* Hook. and Arn. Santalaceae.

Quebrachillo. A low, bushy, slender tree with 3-pointed spiny leaves. The wood is white and smooth and the bark thick. It is native to Brazil.

88240. *JUGLANS AUSTRALIS* Griseb. Juglandaceae. Walnut.

A large tree with compound leaves made up of 13 to 21 large, ovate, sharp-pointed, serrate, viscid-pubescent leaflets, and small, grooved, ovoid nuts about an inch in diameter. It is native to Argentina.

88241. *OPHYOSPORUS CHARUA* (Griseb.) Hieron. Asteraceae.

A climbing evergreen shrub with small opposite ovate leaves and lax corymbs of white flowers. Native to northern Argentina.

88242. *PASSIFLORA MAXIMILIANA* Bory. Passifloraceae.

A tropical perennial climber with membranous bilobed leaves, white flowers an

88197 to 88264—Continued.

inch across, and ovoid fruits over an inch long. Native to tropical Brazil.

88243. *PIPTADENIA EXCELSA* (Griseb.) Lillo. Mimosaceae.

A tree, sometimes nearly 100 feet high, with 15 to 20 pairs of leaflets in each leaf, and spikes of flowers 2 to 3 inches long. The pods are linear. The rosy wood, which resembles that of *Piptadenia macrocarpa*, is tough and straight grained and is used for carpenter work.

For previous introduction see No. 43458.

88244. *PIPTADENIA MACROCARPA* Benth. Mimosaceae.

An important timber tree native to Brazil, with 15 to 20 pairs of pinnae each with 10 to 25 pairs of pinnules, hardly an inch long. The flowers occur in peduncled heads in the axils of the leaves, sometimes at the ends of the branchlets. The pods are 6 inches long and an inch wide, with thickened margins.

For previous introduction see No. 43459.

88245. *PITHECOLLOBIUM SCALARIS* Griseb. Mimosaceae.

A handsome subtropical tree, unarmed or sometimes spiny, native to northern Argentina. The small, pinnate leaves are composed of two to four pairs of stiff oblong-linear leaflets half an inch long.

88246. *PROSOPIS KUNTZEI* Harms. Mimosaceae.

A shrub or small tree, up to 45 feet high, native to the mountains of Bolivia. The twigs become stout spines 3 to 8 inches long. Most of the year the tree is leafless. The dark-purplish wood is of almost flinty hardness.

88247. *PROSOPIS SERICANTHEA* Gill. Mimosaceae.

A subtropical shrub, leafless during most of the year, with stout greenish spines 2 to 4 inches long and short, dense, cylindrical spikes of reddish flowers. Native to Santiago del Estero, Argentina.

88248. *PSEUDIBATIA* sp. Asclepiadaceae.

A half-woody, upright, rarely climbing, tropical American member of the milk-wood family with oval heart-shaped leaves and small flowers.

88249. *PTEROGYNE NITENS* Tulasne. Caesalpiniaceae.

A tall, stout, evergreen tree, up to 100 feet high, abundant in parts of Argentina and Brazil. It has paripinnate leaves and usually alternate lanceolate, thin-leathery, somewhat shining leaflets, and small, yellow flowers in short, loosely flowered axillary racemes.

For previous introduction see No. 41308.

88250. *RAPANEA LAETEVIRENS* Mez. Myrsinaceae.

A shrub or small tree with entire oblong, papery leaves nearly 3 inches long, and small, whitish flowers in dense axillary clusters. Native to Tucuman, Argentina.

88251. *RAPANEA* sp. Myrsinaceae.

Subtropical trees or shrubs with alternate usually entire leaves and small,

88197 to 88264—Continued.

white or pink flowers in dense axillary clusters.

88252. RUPRECHTIA CORYLIFOLIA Griseb.
Polygonaceae.

Manzana del campo. A subtropical tree, native to Cordoba, Argentina, with small, stiff, oval-rounded leaves about an inch long. The reddish-gray wood is hard and compact.

88253. SAMBUCUS PERUVIANA H. B. K.
Caprifoliaceae.

A small tree 18 to 24 feet high, from the Peruvian Andes, with unequally pinnate leaves about 5 inches long, and very small, white flowers in much-branched terminal cymes, followed by small, ovoid, black berries.

88254. SCHINOPSIS LORENTZII (Griseb.)
Engler. Anacardiaceae. **Quebracho.**

An Argentinian timber tree with leathery, compound leaves and branched clusters of small flowers. The wood is hard and durable and yields an important tannin of commerce.

For previous introduction see No. 68980.

88255. SCHINUS LATIFOLIUS Engl. Ana-
cardiaceae.

A subtropical shrub native to Chile, with rather stiff oblong-ovate leaflets 2 or 3 inches long and small, white flowers in few-flowered clusters.

88256. SCHINUS sp. Anacardiaceae.
Peppertree.

An undescribed peppertree belonging to the section *Duvaua* and closely related to *Schinus latifolius* (No. 88255).

88257. SERJANIA GLABRATA H. B. K.
Sapindaceae.

A climbing shrub with alternate biternate leaves; the leaflets are elliptic-oblong and coarsely serrate-crenate. The white flowers are in axillary spikelike racemes. Native to temperate regions in Peru.

88258. to 88261. SOLANUM spp. Solana-
ceae.

88258. SOLANUM TRICHONEURON Hort.

Hediondilla grande. A much-branched little tree, common in northern Argentina. The large shining leaves have a disagreeable odor.

88259. SOLANUM TUCUMANENSE Griseb.

A subtropical shrub about 3 feet high, with stout hairy branches, oval-lanceolate leaves, and small white flowers in few-flowered cymes. Native to Tucuman, Argentina.

88260. SOLANUM VERBASCIFOLIUM L.

A shrub or small tree up to 30 feet high with ovate to lanceolate velvety tomentose leaves 6 to 10 inches long, and small white flowers followed by yellowish fruits half an inch in diameter. Native to Mexico, and generally established in the Tropics.

For previous introduction see No. 47800.

88261. SOLANUM sp.

88262. TABEBUIA AVELLANEDAE Lorentz.
Bignoniaceae.

88197 to 88264—Continued.

A large, handsome tree with 5-parted leaves about 4 inches across and very numerous rosy-lilac flowers over an inch wide near the ends of the branches. Native to northern Argentina and Paraguay.

88263. TIPUANA TIPU (Benth.) Lillo (*T. speciosa* Benth.). Fabaceae. **Tipu-tree.**

A handsome unarmed tree, with compound leaves which are unevenly pinnate and showy yellow flowers in loosely branched terminal panicles. The tree is a rapid grower, and its horizontal branches make it an excellent shade tree.

88264. TRITHRINAX CAMPESTRIS Drude and
Grieseb. Phoenicaceae. **Palm.**

A fan-leaved palm from northern Argentina, closely related to *Trithrinax brasiliensis*. Unlike the latter, the 20 to 30 linear leaf segments are white tomentose above and shallowly bifid.

88265. DIOSCOREA ALATA L. Dioscorea-
ceae. **Winged yam.**

From Yucatan. Tubers presented by Dr. Sylvanus G. Morley, Carnegie Institution, Washington, D. C. Received May 19, 1930.

Ek Makul. A white-fleshed yam with purplish or red skin and purplish sprouts. The tubers received are each over 2 pounds in weight and of medium length and thickness. This yam is of good quality.

88266 to 88275. LUPINUS spp. Faba-
ceae. **Lupine.**

From Western Australia. Seeds received from the Chapman Experiment Farm, through George L. Sutton, Director of Agriculture, Perth, Western Australia. Received May 19, 1930.

A collection of lupines introduced for trial as forage crops. Except *L. mutabilis*, all are native to Europe.

88266 to 88268. LUPINUS ANGUSTIFOLIUS L.

For previous introduction see No. 75813.

88266. No. P-1687. Dark blue.

88267. No. P-1684. White.

88268. Red.

88269 and 88270. LUPINUS HIRSUTUS L.
European blue lupine.

For previous introduction see No. 75914.

88269. Variety *albus*.

88270. Variety *carneus*.

88271. LUPINUS LUTEUS L.
European yellow lupine.

No. P-1690. Yellow.

88272 to 88274. LUPINUS MUTABILIS Sweet.
South American lupine.

88272. No. P-1669.

88273. No. P-1653.

88274. No. P-1673.

88275. LUPINUS PILOSUS Murray.

A lupine with blue flowers.

For previous introduction see No. 39198.

88276. ONCOBA ECHINATA Oliver. Flacourtiaceae.

From Ganta, Liberia, Africa. Seeds presented by Dr. George W. Harley. Received May 22, 1930.

A smooth shrub with thin, leathery, oval leaves, small, inconspicuous flowers, and round, prickly fruits about an inch in diameter. It is native to eastern tropical Africa. The seeds contain 46.6 per cent of fat, and an analysis of this fat has shown it to contain 87.5 per cent chaulmoogric acid, which is used in the treatment of leprosy.

For previous introduction see No. 55465.

88277. SACCHARUM SP. Poaceae.
Sugarcane.

From Hawaii. Cuttings received from H. P. Agee, Director of the Hawaiian Sugar-Planters' Association. Received May 22, 1930.

Received as *Saccharum robustum*, for which a place of publication has not been found.

88278 to 88313.

From Manchuria. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 26, 1930.

88278. PUERARIA THUNBERGIANA (Sieb. and Zucc.) Benth. Fabaceae. **Kudzu-bean.**

No. 5682. Received from the Manchu Nosan Shokai (Inc.), Dairen, South Manchuria, April 22, 1930.

Large quantities of kudzu seed are collected in South Manchuria as far north as Mukden. No use is made of kudzu in this region other than collecting the seed for shipping to the United States.

For previous introduction see No. 83812.

88279 to 88313. SOJA MAX (L.) Piper (*Glycine hispida* Maxim.). Fabaceae.
Soybean.

Nos. 88279 to 88293 were received April 21, 1930, from the South Manchuria Experiment Station, Kunchuling.

88279. No. 5649. *Hakubi* (Mukden white). A medium-sized, oval, light glossy yellow bean with pale hilum. Used as grain.

88280. No. 5650. *Chanchun*. Experiment Station No. 220. A medium-small, oval, slightly flattened, dull-yellow bean with large, dark-brown hilum. Used for forage and green manure.

88281. No. 5651. *Kingin*. A medium-small, oval, light glossy yellow bean with russet-brown hilum. Used as grain.

88282. No. 5652. Experiment Station No. 319. A medium-sized, oblong, slightly flattened, glossy, yellow bean with brown hilum. Used for pasture and forage.

88283. No. 5653. *Kokoshu*. A medium-sized, nearly round, glossy, light-yellow bean with light-brown hilum. Used as grain.

88284. No. 5654. Experiment Station No. 543. A medium-sized, oval, slightly flattened, yellowish-brown bean. Used for pasture and forage.

88278 to 88313—Continued.

88285. No. 5655. Experiment Station No. 483. A medium-sized, oval, much flattened, yellowish-brown bean. Used as forage.

88286. No. 5656. *Kaiyuan No. 191*. A medium-small, oval, glossy, yellow bean with pale hilum. Used for forage and green manure.

88287. No. 5657. *Mosheto*. A medium-sized, oval, much-flattened brown bean which appears very similar to Virginia (F. P. I. 19196D). Used as green manure and forage.

88288. No. 5658. Experiment Station No. 480. A medium-small, much-flattened, yellowish-brown bean. Used for forage and green manure.

88289. No. 5659. Experiment Station No. 235. A medium-sized oval, glossy, yellow bean with pale hilum. Used as grain.

88290. No. 5660. *Changechung No. 591*. A medium-sized oval, greenish-yellow bean with pale hilum. Used for forage and green manure.

88291. No. 5661. Experiment Station No. 262. A medium-sized nearly round, glossy, yellow bean with light-brown hilum. Used as grain.

88292. No. 5662. Experiment Station No. 420. A medium-small, oval, much-flattened, black bean with yellow germ. Very similar to *Wilson-Pue*. Used as forage.

88293. No. 5663. Experiment Station No. 224. A medium-small, oval, light-yellow bean with pale hilum. Used as grain.

Nos. 88294 to 88313 were received April 23, 1930, from the inspection division of the South Manchurian Railway wharf. A collection of mixed yellow-seeded Manchurian varieties.

88294. No. 5683. From Kingchuling.

88295. No. 5684. From Chinchin.

88296. No. 5685. From Kaiyuan.

88297. No. 5686. From Changchun.

88298. No. 5687. From Hsian.

88299. No. 5688. From Miaotailzu.

88300. No. 5689. From Penhsih.

88301. No. 5690. From Tsaichiatun.

88302. No. 5691. From Fengtien (Mukden).

88303. No. 5692. From Sanchanho.

88304. No. 5693. From Ssuningkai.

88305. No. 5694. From Tiehling, Manchuria. Said to be sent to the main island for the manufacture of soy sauce and miso.

88306. No. 5695. From Fushun.

88307. No. 5696. From Kahiisho.

88308. No. 5697. From Kuochiatien.

88309. No. 5698. From Shuangcheng-puk.

88310. No. 5699. From Touren.

88311. No. 5700. From Talanchi.

88312. No. 5701. From Changtu.

88313. No. 5702. From Chirin.

88314. CARPOTROCHE BRASILIENSIS
(Raddi) Endl. Flacourtiaceae.
Sapucainha.

From Viosa, Brazil. Seeds presented by Prof. P. H. Rolfs, through George S. Jamieson, Bureau of Chemistry and Soils. Received May 26, 1930.

A tropical tree 30 to 50 feet high, with oblong leaves about 4 inches long, and few-flowered racemes of small, white flowers. The fruits are about 4 inches in diameter. A sirup said to cure leprosy and an ointment used for skin afflictions are prepared from the seeds.

For previous introduction see No. 77616.

88315 to 88317. LESPEDEZA spp. Fabaceae. Bushclover.

From Manchuria. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received June 3, 1930.

88315. LESPEDEZA sp.

No. 5706. Near Dairen, April 29, 1930. Plants growing 18 to 24 inches high in poor, rocky, dry soil.

88316. LESPEDEZA sp.

No. 5707. Near Dairen, April 29, 1930. Plants 24 to 30 inches high growing on dry, rocky mountain sides. The seed is in buttonlike clusters on the stems of the plants.

88317. LESPEDEZA sp.

No. 5708. From plants along the road on top of the wall surrounding the city of Chin-chou. The plant is an annual, 12 to 18 inches high, and grows in thin poor soil. Perhaps the same as No. 5707 [No. 88316].

88318 and 88319.

From Perth, Western Australia. Seeds presented by Miss Ida Richardson. Received June 3, 1930.

88318. CLEMATIS ARISTATA R. Br. Ranunculaceae.

An evergreen woody vine with trifoliate leaves of cordate to narrowly lanceolate, entire or serrate leaflets 1 to 3 inches long, and yellowish-white flowers 2 inches across in short panicles. It is native to Australia.

88319. NUYTSIA FLORIBUNDA (Labill.) R. Br. Loranthaceae.

A tree 30 feet high, with spreading branches, thick entire, linear leaves 2 to 3 inches long, and orange-yellow flowers in showy racemes crowded at the ends of the branches. Unlike most of the Loranthaceae, this species is terrestrial and not parasitic. It is native to Western Australia.

For previous introduction see No. 25640.

88320 to 88322. GOSSYPIUM BARBADENSE L. Malvaceae. Sea-island cotton.

From Egypt. Seeds presented by S. A. Steere, Goodyear Tire & Rubber Co., Akron, Ohio, through T. H. Kearney, Bureau of Plant Industry. Received June 5, 1930.

88320. Giza No. 2.

88321. Giza No. 7.

88322. Sakha No. 4.

88323. LAPAGERIA ROSEA ALBIFLORA Hook. Liliaceae. White Chile-bells.

From Winchester, England. Plants purchased from Hillier & Sons, West Hill Nurseries. Received June 5, 1930.

A form in which the flowers are cream colored with a tinge of rose at the base.

88324. TERMINALIA MUELLERI Benth. Combretaceae.

From Lucknow, United Provinces, India. Seeds purchased from the Superintendent, Government Horticultural Gardens. Received June 5, 1930.

A native Australian species which becomes a large tree under favorable conditions, with leathery leaves up to 8 inches long, loose spikes of small, white flowers, and small, ovoid black fruits.

For previous introduction see No. 59687.

88325 and 88326.

From Singapore, Straits Settlements. Seeds presented by the Director, Botanic Gardens. Received June 5, 1930.

88325. FICUS GLOBOSA Blume. Moraceae. Fig.

A climbing fig, epiphytic at least when young, with thinly coriaceous, oblong, entire leaves 3 to 6 inches long, abruptly pointed at the tip, and globose fruits an inch in diameter. It is native to India and the Malay Archipelago.

88326. FICUS KURZII King. Moraceae. Fig.

A tree with thinly coriaceous ovate-elliptic entire leaves 4 inches long, and globose, dark-purple fruits half an inch in diameter. It is native to India and Java.

88327 and 88328.

From Peru. Cuttings presented by William J. Dennis. Received October 31, 1929. Numbered in June, 1930.

88327. BANISTERIA CAAPI Spruce. Malpighiaceae.

A woody vine with smooth, ovate-lanceolate, coriaceous leaves 3 to 5 inches long and large panicles of small flowers followed by winged fruits about 2 inches long. It is native to Brazil.

88328. LONCHOCARPUS NICOU (Aubl.) DC. Fabaceae. Nicou.

A woody vine climbing to the tops of trees with alternate compound leaves made up of about seven ovate, sharp-pointed leaflets, and axillary spikes of pea-shaped, purple flowers. It is native to Guiana, where the roots are used as fish poison.

88329. APODANTHERA sp. Cucurbitaceae.

From Negritos, Peru. Tubers presented by Oscar L. Haight. Received July 24, 1929. Numbered in June, 1930.

Yucca de Monte. A herbaceous vine which grows to a height of 20 feet, with tubers which are edible after being cooked. The growing season is from February to May.

88330. HYPERICUM sp. Hypericaceae. St. Johnswort.

From Bagulo, Philippine Islands. Seeds presented by P. J. Wester, Department

88330—Continued.

of Agriculture and Natural Resources, Manila. Received June 4, 1930.

An ornamental shrub with golden-yellow flowers, produced in great profusion.

88331 to 88342. *ORYZA SATIVA* L. Poaceae. Rice.

From Dacca, Bengal, India. Seeds purchased from S. G. Sharnagapani, Economic Botanist to the Government of Bengal, through Robert Frazer, American consul general, Calcutta, India. Received June 6, 1930.

88331 to 88334. Varieties especially suitable to subsaline or semisalinal conditions.

88331. *Patnol*.

88332. *Ohingrighushi* (5).

88333. *Khitrakjau* (8).

88334. *Bansful* (3).

88335. *Badkalamkati* (65). Very early transplanted winter paddy.

88336 to 88342. Normally transplanted varieties of winter paddy.

88336. *Badkalamkati* (26).

88337. *Dudsar* (Dacca No. 5).

88338. *Indrasail* (Dacca No. 1).

88339. *Bhasamanik* (*Ohinsura* No. 2).

88340. *Jhingasail* (Dacca No. 15).

88341. *Daukhant* (Dacca No. 9).

88342. *Nagra* 68/6.

88343 to 88347.

From the Italian Riviera. Seeds collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, with the Allison V. Armour expedition. Received June 11, 1930.

88343. CITRUS sp.

No. 3501. La Mortola Gardens, May 27, 1930. A very thick-skinned, tiny, rough orange of deep-orange color and without much flesh, but having a delicious flavor. May be resistant to the fruit fly because of its thick skin.

88344. *CLEMATIS ARMANDI* × *MEYENIANA*. Ranunculaceae.

No. 3504. La Mortola Gardens, May 27, 1930. A hybrid clematis which is a remarkable pergola vine covering long arbors with a mass of foliage and immense clusters of white flowers. The vine has stood a temperature of 18° F., likes a moist, limestone soil, and grows in partial shade.

88345. *ECHINOCACTUS GRUSONII* Hildmann. Golden cactus.

No. 3507. A globular cactus, reaching a diameter of 2 feet in old specimens, completely covered by a mass of almost transparent golden-yellow spines which give the plant the appearance of a ball of gold. The flowers, which are deeply set into the surface of the plant, are red and yellow. It is native to Mexico.

88346. *ELAEODENDRON CAPENSE* Eckl. and Zeyh. Celastraceae. False-olive.

No. 3505. La Mortola Gardens, May 27, 1930. An erect shrub, native to South Africa, with leathery, ovate leaves 3 inches long, and panicles of small,

88343 to 88347—Continued.

white flowers followed by red drupes an inch long. The plant has stood 18° F. without injury.

For previous introduction see No. 79525.

88347. *VITIS PIASEZKII* Maxim. Vitaceae. Grape.

No. 3503. La Mortola Gardens, May 27, 1930. A Chinese species said to have handsome blue fruits.

For previous introduction see No. 27415.

88348 to 88363. *SOJA MAX* (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. Soybean.

From Manchuria and Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received June 17, 1930.

Nos. 88348 to 88359 were received May 11, 1930, from the South Manchurian Railway Soybean Seed Farm at Kaiyuan, Manchuria.

88348. No. 5717. *Hakube*. A medium-sized, oval, light-yellow bean with pale hilum.

88349. No. 5718. *Fukukingen*. A medium-sized, oval, glossy, yellow bean with pale hilum. This is a variety developed by the South Manchurian Railway Experiment Station at Kung-Chuling, Manchuria.

88350. No. 5719. *Kaiyuan* (white flower). A medium-sized, oval, glossy, yellow bean, mixed as to color of hilum.

88351. No. 5720. No. 3, seed selection (1928). A medium-sized, nearly round, glossy, yellow bean with pale hilum.

88352. No. 5721. *Kingen*. A medium-sized, nearly round, glossy, yellow bean, mixed as to color of hilum.

88353. No. 5722. Kung-Chuling Station No. 235. A medium-large, nearly round, light-yellow bean with pale hilum.

88354. No. 5723. No. 24—A. Seed selection (1926). A medium-sized, oval, glossy, light-yellow bean with light-brown hilum.

88355. No. 5724. No. 15—B. Seed selection (1926). A medium-sized, nearly round, glossy, yellow bean with pale hilum.

88356. No. 5725. No. 7. Seed selection (1926). A medium-sized, oval, glossy, light-yellow bean with pale hilum.

88357. No. 5726. Kung-Chuling Station No. 305. A medium-sized, oval, light-yellow bean with brown hilum.

88358. No. 5727. No. 6—A. Seed selection (1926). A medium-sized, glossy, light-yellow bean with light-brown hilum.

88359. No. 5728. No. 8. Seed selection (1926). A medium-sized, nearly round, glossy, yellow bean with brown hilum.

Nos. 88360 to 88363 were received May 14, 1930, from the Island Master of Saishuto Island, Chosen.

88360. No. 5729. *Komujonkon*. A medium-small, oval, slightly flattened, black bean with yellow germ.

88361. No. 5730. *Purukunkon* (red-yellow). A medium-small, oval, glossy,

88348 to 88363—Continued.

reddish-yellow bean which is planted about June 1 and harvested the first week in October.

88362. No. 5731. *Pakute* (white). A medium-small, oblong, slightly flattened, glossy, yellow bean with brown hilum which is planted June 15 and harvested the first week in October.

88363. No. 5732. *Purukon* (yellow). A medium-large, oval, yellowish-brown bean with yellow germ, which is planted late in June and harvested late in October.

88364 to 88370.

From Victoria, Cameroon, Africa. Seeds presented by T. D. Maitland, Superintendent, Botanic Gardens. Received June 17, 1930.

88364. *ARISTOLOCHIA GOLDBEANA* Hook. f. Aristolochiaceae.

A perennial vine up to 20 feet long with triangular-cordate leaves and large flowers, greenish with red-purple ribs outside and brown and yellow mottled inside. The tube is more than a foot long, and the spreading limb is a foot in diameter. It is native to tropical Africa.

88365. *CACARA EROSA* (L.) Kuntze (*Pachyrhizus angulatus* Rich.). Fabaceae. Yam bean.

Jacatupe. A twining, wiry-stemmed plant occasionally grown in the West Indies. The large, tuberous roots contain much starch.

For previous introduction see No. 76489.

88366. *DIOSPYROS EBENASTER* Retz. Diospyraceae. Black sapote.

One of the most popular fruits of Mexico. In favorable situations the tree is 60 feet high. The bright-green, shining leaves are 4 to 8 inches long. The oblate, olive-green, thin-skinned fruit is 2 to 5 inches in diameter. The soft, unctuous, dark chocolate-brown pulp is of sweet flavor, somewhat similar to that of the kaki, but scarcely as pleasant.

For previous introduction see No. 52377.

88367. *FUNTUMIA ELASTICA* (Preuss) Stapf. Apocynaceae. Lagos rubber tree.

A large forest tree widely distributed throughout central Africa and the source of Lagos rubber, which is of excellent quality.

For previous introduction see No. 77393.

88368. *GOSSYPIMUM* sp. Malvaceae. Cotton.

88369. *PARKIA FILICOIDEA* Welw. Mimosaceae.

A tropical tree up to 60 feet high, with bipinnate leaves 1 to 2 feet long, made up of six to nine pairs of pinnae, each bearing 16 to 24 pairs of oblong leaflets about an inch long. The scarlet flowers are borne in club-shaped heads about 3 inches long and appear before the leaves. It is native to tropical Africa.

88370. *PHYSOSTIGMA VENENOSUM* Balfour. Fabaceae. Calabar bean.

A woody vine with trifoliolate leaves having broadly cordate leaflets 5 inches long, and lax, drooping racemes 4 inches

88364 to 88370—Continued.

long, of beautifully veined pale-pink flowers. The polished chestnut-brown seeds, borne in a thick pod 5 to 7 inches long, are the ordeal beans of the Calabar coast of Africa where this vine is native.

For previous introduction see No. 21481.

88371. *ARISAEMA POLYPHYLLUM* (Blanco) Merr. Araceae.

From the Philippine Islands. Seeds presented by P. J. Wester, Department of Agriculture and Natural Resources, Manila. Received June 19, 1930.

A herbaceous perennial about 2 feet high, with a leaf palmately divided into about 12 lanceolate entire leaflets 2 inches long and a spathe and spadix resembling those of the well-known American Indian turnip, *A. triphyllum*. It is native to the Philippine Islands.

88372. *MANIHOT GLAZIOVII* Muell. Arg. Euphorbiaceae. Ceara rubber.

From Jamaica. Seeds presented by M. S. Goodman, Superintendent, Hope Gardens, Kingston. Received June 21, 1930.

A tree, native to Brazil, which grows to a height of about 30 feet with a round head. It has 3-lobed to 7-lobed gray-green leaves, in shape and size resembling those of the castor-bean plant. The tree may be tapped for rubber when the trunk is 4 or 5 inches in diameter. The rubber collector first scrapes the loose dirt and stones away from the roots of the tree and then covers the ground with broad leaves in order to catch the dripping sap. He then strips the bark from the trunk to a height of 4 or 5 feet, making a number of spiral incisions. The thick, viscid milk flows from these incisions, some of it runs down to the ground, but most of it dries on the trunk. After several days, when the sap is completely dry, it is broken off in long, stringlike pieces, which are rolled into a ball and packed in sacks. The product is then ready for market.

For previous introduction see No. 72978.

88373 and 88374. *MEDICAGO SATIVA* L. Fabaceae. Alfalfa.

From Santiago, Chile. Seeds presented by Alberto J. Wiedmaier, Director, Estación Experimental de la Sociedad Nacional de Agricultura. Received June 24, 1930.

Varieties that are native to Chile.

88373. Chilena de rulo de Polpaico.

88374. Chilena de Vallenar.

88375 to 88416. *LENS ESCULENTA* Moench. Fabaceae. Lentil.

From Pusa, Bihar, India. Seeds presented by F. J. F. Shaw, Imperial Economic Botanist, Imperial Institute of Agricultural Research. Received June 24, 1930.

88375. No. 3. **88384.** No. 18.

88376. No. 4. **88385.** No. 22.

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88375 to 88416—Continued.

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88403. No. 49.	88415. No. 62.
88404. No. 50.	88416. No. 64.

88417. CITRUS MIARAY Wester. Rutaceae.

From Manila, Philippine Islands. Seeds presented by P. J. Wester, Department of Agriculture and Natural Resources. Received June 26, 1930.

A handsome ornamental tree suggested as a stock for cultivated citrus fruits. It has slender, drooping, willowy branches, dark-green leaves, and fruits resembling the lime in appearance and flavor. Native to the Philippine Islands.

For previous introduction see No. 81995.

88418 to 88420.

From Sorrento, Italy. Scions collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, with the Allison V. Armour expedition. Received June 30, 1930.

88418 and 88419. CITRUS SINENSIS (L.) Osbeck. Rutaceae. **Orange.**

88418. No. 3509. The *Sorrentino* orange, a variety commonly grown in Sorrento and Capri. The deep-orange fruit is round, thick-skinned, with few seeds, and has a pronounced orange aroma. It is left hanging on the tree for a year and keeps its juiciness. It is grown under the protection of straw mats from December to April and is propagated by budding.

88419. No. 3510. *Sanguinea* orange. The blood orange of Sorrento is an oval, thin-skinned variety which has a red blush on its skin and is a true blood orange of good quality. It is grown, as are all the citrus fruits in Sorrento, under straw mats and protected from wind by chestnut slats from December to April.

88420. ERIOBOTRYA JAPONICA (Thunb.) Lindl. Malaceae. **Loquat.**

No. 3508. A seedling found in the hotel garden at Capri. A very large-fruited variety, almost spherical in shape and of delicious sweetness.

88421 and 88422. GOSSYPIUM HERBACEUM L. Malvaceae. **Cotton.**

From Bombay, India. Seeds presented by J. H. Richie, Secretary, Indian Central Cotton Committee. Received June 27, 1930.

88421. *Wagad* No. 4.

88422. *Wagad* No. 8.

88423. GOSSYPIUM STOCKSII Masters. Malvaceae. **Cotton.**

From Sind, Karachi, India. Seeds presented by the Deputy Director of Agriculture. Received June 27, 1930.

A shrubby tropical Indian cotton with small yellow flowers which is native to the Sind district; it is of the 13-haploid-chromosome group and therefore will not cross with American types. The seed is difficult to germinate. It is sown in India about June; before sowing, the coat is carefully split with a knife or the seed is rubbed upon a piece of fine sandpaper, which allows access of water and helps germination.

For previous introduction see No. 78516.

88424 to 88431.

From Indo-China. Seeds presented by M. Pollane, Institut des Recherches Agronomiques de l'Indochine, Division de Botanique. Received June 28, 1930.

88424. BARYXYLUM sp. Caesalpiniaceae.

Attractive tropical trees with mimosa-like foliage and yellow flowers.

88425. BAUHINIA RETICULATA DC. Caesalpiniaceae.

A small tree, 25 feet high, which grows in dry lateritic soil and can stand long periods of drought. The rather small flowers are in compound racemes not much longer than the leaves and are followed by abundant pods which fall to the ground in March, at the beginning of the dry season. Cattle are very fond of these pods.

For previous introduction see No. 70935.

88426. CASSIA ALATA L. Caesalpiniaceae. **Ringworm cassia.**

A coarse, erect, branched shrub 5 to 10 feet high, with stout green branches and pinnate leaves up to 2 feet long. The yellow flowers, 2 inches wide, are in racemes 4 to 10 inches long. The valves of the straight, spreading pods have a papery wing running from end to end. Every portion of this plant is used medicinally. It is native to tropical America, but is now cultivated all over the Tropics, where it grows in humid soil.

For previous introduction see No. 54322.

88427. DIOSPYROS sp. Diospyraceae. **Persimmon.**

Found growing in very rich soil.

88428. GOSSYPIUM NANKING Meyen. Malvaceae. **Cotton.**

Moi cotton from the Phorieng region.

88429. MUSA sp. Musaceae. **Banana.**

A very good wild banana.

88430. INDIGOFERA sp. Fabaceae.

Useful as a green manure.

88431. STRYCHNOS sp. Loganiaceae.

A handsome tree.

88432. PISTACIA VERA L. Anacardiaceae. **Pistache.**

From Persia. Seeds presented by Jalil K. Hashimzade, American Agricultural School, Urumia. Received June 30, 1930.

Seeds of one of the better types of pistache.

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