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 crus-galli 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, Chiangmai, 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, 87445-87466) 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, 87483-87488), besides seeds of melons, wheat, and corn.

H. N. Vinall 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 Socialist 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. 88333), 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, plums, apricots, plums, and pomegranates (Nos. 88094-88103) collected in the Khozestan 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, Pinar del Río, 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.
INVENTORY

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 funnel-shaped campanulate flowers are 2 to 3 inches across. The shrub is native to central China.

86761. RHODODENDRON RACEMOSUM Franch. Mayflower rhododendron.
An upright Chinese shrub up to 6 feet high, with scaly branchlets, elliptic to oblongate 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 funneliform 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. 76603.

86764 to 86766. SYRINGA spp. Oleaceae.
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.

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.
86755. SYRINGA PINOIFOLIA W. W. Smith.

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

For previous introduction see No. 79050.

86766. SYRINGA TOMENTOSA Bureau and Franch. Felt 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-Rhône, France. Seeds presented by Tezier Frères, 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 Landwirtschaft, 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. Chauocha.

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.


86783. CYCLAMEN EUROPEUM 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 alba.

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. 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.


86792. No. 22. Bianco grosso.

86793. No. 16. Bleuet.

86794. No. 4. Bourjasotte.


86797. No. —. Datte de Naples.

86798. No. 25. Davellet Cast.


86800. No. 15. Di Smyrne.
Continued.

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

From Hakgala, Ceylon. Seeds presented by the director, Botanic Garden. Received April 3, 1930.

A tropical tree 30 to 40 feet high with a slender stem which has a few leaves at the base and is naked above. 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.

A succulent perennial 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.

A tropical Brazilian tree now extensively cultivated for rubber.

For previous introduction see No. 77394.

European grape.

From Ururimah, Persia. Seeds presented by Jalil K. Hashimzade, American Agricultural School. Received April 9, 1930.
PLANT MATERIAL INTRODUCED

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. 88. 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 Socialist Soviet Republics. Seeds presented by the Institute of Applied Botany. Received April 12, 1930.

86835 to 86842. Variety Aperelle.


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.


86851. No. 1396. Variety Zard.

86852. No. 1374/4.

86853 to 86859. Variety Agerettia.


86859. No. D-2344.

86860 to 86865. Variety Ameri.

86860. No. D-1150.


868635 to 86871—Continued.


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 CRENLULATA Lodg. Myr- sinaceae.

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 RACINGO S Vieb. and Zucc. Rhamnaceae.

Japanese supplejack.

From Karuilgawa, 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 hispid-a 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.


86877. No. 4251. Joshin shiro. From the Mikaway 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 Masu Shoyu Sauce Factory, Nakano-Nachi, Tokyo, February 28, 1930. A mixed sample of medium-sized green beans, most of which have brown hilums; grown in Manchuria and used in the manufacture of soy sauce.
Chantapaku. A medium-sized, oval, deep glossy yellow bean with pale hilum.

Rensen chame (Rensen browneye). Medium-sized, oval, yellowish-brown bean with brown hilum.

Oribikon. Large, oval, glossy yellow beans with the testa split on nearly all of them; hilum very light brown.

Bote. A medium-sized, oval, light-yellow bean with brown hilum.

Tansen. A medium-sized, oval, glossy, yellow bean with pale hilum.

Purutekon. A medium-sized, nearly round, deep glossy green bean with brown hilum and green germ.

Purutekon. A medium-large, oval, yellowish-green bean with pale hilum and yellow germ.

Teizokon. A medium-large, oval, dark-brown bean.

Komujonkon. A medium-large, oval, much-flattened, glossy, black bean with yellow germ.

Menukon (hawkeye). A medium-sized oval, slightly flattened, brown bean marked with concentric black rings.

Pimazakon. A large, oval, slightly flattened, black bean with fine network of white on the hilum.

Renbikon (saddle). A medium-large, much flattened, yellowish-green bean with black saddle and green germ.

Orabikon (black-eyed). A medium-sized, oval, glossy, yellow bean with slate-black hilum.

Purukon. A medium-large, oval, glossy, bluish-green bean with pale hilum.

Chukon (whitemouth). A small, round, yellow bean with brown hilum; it should be an excellent variety for sprouts.

Chukon. Medium-small, oval, glossy, black bean very similar to Ebony (No. 17254).

Chukon (greenmouth). A medium-small, nearly round, glossy, green bean with light-brown hilum; it may be of value for sprouts.

Chukon (black-greenmouth). A small, round, glossy, bluish-green bean with black hilum and yellow germ.

Chukon. Medium-small, nearly round bean with a pale hilum; may be of value for sprouts.

Hintangukon. A medium-sized, oval, yellow bean with russet-brown hilum.

Chachuto. A medium-small, nearly round, brown bean.

Kimenta. A medium-sized, oval, glossy, deep-yellow bean, slightly mottled with brown; hilum large and dark brown.

Acukuribangukon. A medium-large, oval, slightly flattened brown bean with the testa split into fine network of white on the sides.


Pakumeta (whiteeye). A medium-sized oval, glossy, yellow bean with pale hilum.

Fukota. A medium-large, oval, glossy, yellow bean with large brown hilum.

Pizu. A medium-small, nearly round, dark-brown bean.

Chumokute. A very small, round, glossy, black bean with yellow germ.

Chongukon. A large, oval, slightly flattened, yellowish-green bean, mottled with black; hilum black.

Kujongumurukon. A medium-large, oval, bluish-green bean with blue-black hilum.

Chongukurukon. A medium-small, oval, slightly flattened, green bean with brown hilum and yellow germ.

Jindarinkon. A medium-small, oval, very similar to Ebony (No. 17254).

Chorante. A medium-sized, oval, slightly flattened brown bean marked with concentric black rings. Very similar to Meyer (No. 17852).

Komubangukon. A medium-sized, oval, slightly flattened, glossy black bean with yellow germ.

Judaizu. A medium-large, oval, green bean with brown hilum and green germ.

Jindarinkon. A medium-small, oval, black bean, very similar to Ebony (No. 17254).

Chorante. A medium-sized, oval, slightly flattened brown bean marked with concentric black rings. Very similar to Meyer (No. 17852).

Kujongumurukon. A medium-large, oval, bluish-green bean with blue-black hilum.

Jindarinkon. A medium-small, oval, very similar to Ebony (No. 17254).

Chorante. A medium-sized, oval, slightly flattened brown bean marked with concentric black rings. Very similar to Meyer (No. 17852).

Komubangukon. A medium-sized, oval, slightly flattened, glossy black bean with yellow germ.

Judaizu. A medium-large, oval, green bean slightly mottled with brown; hilum brown; testa more or less spilt.

Chuhokuhokoku. A large, oval yellow bean with russet-brown hilum.

Chuhokuko. A medium-sized, oval, glossy, deep-yellow bean with pale hilum.

From Zenra Nando, Chosen, through the Bureau of Industry, Government General, Keijo, March 10, 1930.
86876 to 87084—Continued.

86918. No. 4440. Hinbatsukon. A large oval, glossy, greenish-yellow bean slightly mottled with brown; hilum brown.


86923. No. 4445. Norangukon. A bean with the testa split on most sides more or less split.

86929. No. 4451. Black bangukon. A medium-large, oval, glossy, black bean with the testa more or less split.


86937. No. 4459. White zongukon. A small, oval, glossy, deep-yellow bean with long, brown hilum.


86952. No. 4474. Honbibankon. A large yellow, oval bean with pale hilum and the testa split on most seed.


86954. No. 4476. Jimton zongukon. A small, round, cinnamon-brown bean, very similar to Brownie (No. 17265).


86957. No. 4479. Asukaribankon. A medium-large, oval, slightly flattened, black bean with the testa on both sides split into fine network of white.


Continued.


86970. No. 4492. \textit{Kongunanmurakon}. A mixture of small-seeded yellow varieties which may be of value for sprouts.

86971. No. 4493. \textit{Rokudaizu}. A large, oval, yellowish-green bean slightly mottled with brown; hilum brown and testa slightly split.


86973. No. 4495. \textit{Rokukon}. A small, oval, glossy bean slightly mottled with brown; hilum brown, germ green.

86974. No. 4496. \textit{Moyashimame}. A medium small, oval, slightly flattened black bean mottled with brown; hilum brown.

86975. No. 4497. \textit{Hinjunnunkon}. A very small, oval, yellow bean with a brown hilum which should be an excellent variety for sprouts.


86977. No. 4499. \textit{Purunkon}. A medium-small, oval, green bean slightly mottled with brown; hilum brown; germ green.


86979. No. 4501. \textit{Kinzanshu}. A medium-small, oval, light-yellow bean, slightly mottled with brown; hilum pale.


86981. No. 4503. \textit{Rokugatatsu}. A large, oval, glossy, yellow bean with pale hilum.


86983. No. 4505. \textit{Kogendooshokuta}. A mixture of yellow-seeded varieties, ranging in size from small to very large.

86984. No. 4506. \textit{Togomatsu} (castor oil bean). A large, oval, slightly flattened black bean with the testa split into coarse white network.


86988. No. 4610. \textit{Dairyu shu}. From \textit{Zenra Nando}. A very large, oval, yellow bean; hilum brown and testa slightly split.

86989 to 86992. From \textit{Zenha Hokudo}.

86993. No. 4611. \textit{Burukon}. A medium-sized, oval, yellow bean slightly mottled with brown; hilum brown.


86995. No. 4613. \textit{Chantan}. A medium-large, oval, glossy, yellow bean with brown hilum.


86997 to 87003. From \textit{Kelaho Hokudo}.


86876 to 87084—Continued.

8701. No. 4623. Tonguteki. From Kentomen. A medium-large, oval, glossy, yellow bean with the testa more or less split.


8703. No. 4625. Ikkota. From Seikimen. A very large, oval, yellow bean with a pale hilum and the tests slightly split.


8706. No. 4628. Buyotori. From Tatsuzanmen. A mixture of large, oval, glossy, yellow beans with black or brown hilums.


8709. No. 4631. Zebarukongu. From Uhomen. A very large, oval, slightly flattened, black bean with the tests split in white network on the sides.


8712. No. 4634. Hinkongu. From Shoramen, Hokado. A very large, oval, yellow bean with the testa slightly split and the hilum pale.


8724. No. 4646. Ogonta. From the Jorimen. A large, oval, slightly flattened, yellow bean with brown hilum.

8725. No. 4647. Totto tari. From the Jorimen. A medium-large, oval, green bean with brown hilum and green germ.


8727 to 87289. From Kahlomen.

8729. No. 4649. Chirugumukongu. A small, oval, slightly flattened, cloudy yellow bean, slightly mottled with black; hilum black.

8730. No. 4650. Soseishizu. A medium-sized, oval, brown bean with the testa more or less split.

8731. No. 4651. Hinchongutari. Medium-large, oval, glossy, yellow beans with the hilums pale to brown.


8737 to 87039. From Tanimen.


8739. No. 4658. Burukongu. Medium-large, oval, brown beans with the tests more or less split.


86876 to 87084—Continued.

87041. No. 4663. Ogonta. From Hojo-
men. A medium-sized, oval, glossy, yellow bean with pale hilum.

87042 to 87044. From the Keisho Hokudo Seed & Nursery Farm.

87044. No. 4665. Gize. A medium-
sized, light-yellow bean with pale hilum.

87045. No. 4696. Show. A mixture of yellow and greenish-yellow varieties.

87045 to 87047. From Keisho Nando.


87050. No. 4691. Purute. From Tan-
jornmen. A medium large, oval, glossy, green bean with black hilum and green germ.


87053. No. 4701. Painikon. From Ko-
ganmen. A medium-sized, oval, yellow-light bean with large russet-
brown hilum and the testa more or less split.


87058. No. 4706. Kanankon. From Sekiyomen. A very large oval, glossy, yellow bean with russet-
brown hilum and the testa more or less split.

87059. No. 4707. Rokukon. From Tal-
shamen. A large, oval, olive-green bean with green germ, slate-black hilum, and testa more or less split.

87060. No. 4708. Mitta. From Kal-
shumen. A medium-sized, oval, glossy, yellow bean with light slate-
black hilum.


PLANT MATERIAL INTRODUCED

8876 to 87084—Continued.

87079. No. 4802. Purutekor. From Dantomen. A medium-large, green, oval bean with black hilum and green germ.


87083. No. 4806. Togomata. From Hakubumen. A large, oval, slightly flattened, black bean with testa split into white network on sides.


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. PUBRARIA 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. CHAETOCHLOA ITALICA (L.) Scribn. (Setaria italica Beauv.). Poaceae. Millet.

87086. No. 5012. Awazairaishu.

87087. No. 5014. Fu ko.

87088. No. 5013. Awazairaishu.

87089. No. 5020. Awazairaishu.


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

87091. No. 4591. Soba.

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

87093 to 87097. From Zenra Hokudo.

87093. No. 4994. Soba zaira shu.

87094. No. 4995. Sara me misu.

87095. No. 4996. Tan kaku Makung.

87096. No. 4997. Moku baku.

87097. No. 5006. Soba zaira shu.


87101 to 87104. From Chusei Hokudo.

87101. No. 4570. Keso.

87102. No. 4571. Rokubeu.

87103. No. 4572. Mumie port.

87104. No. 4575. Hege.

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

87106. No. 5057. Sanakuku, from Zenra Hokudo.

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


87115. No. 5024. Komagi satraishu, a native variety.


87117. No. 5035. Ejutca.


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


87128. CAJANUS INDICUS Spreng. Fabaceae.
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.
From Nanking, China. Seeds purchased from C. H. Hoh, 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.
87129. No. 7. Late nonglutinous rice, from Changshu.
87130. No. 11. Late nonglutinous rice, from Kiangyin.
87131. No. 2. "Odorous" nonglutinous rice, from Changshu.
87133. No. 5. "Sixty-day" nonglutinous rice, from Changshu.
87134. No. 4. "Sixty-day" nonglutinous 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.
Kabu. 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.
No. 4908. Enbaku, from Chusei Nando.
87141. Cannabis sativa L. Moraceae.
Hemp.
No. 4519. Ouami, from Keikido.
87142 to 87146. Chaetochloa 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.
87144 to 87146. From Chusei Hokudo.
87148. No. 4553. Ochisao.
87150. No. 4555. Mututokuzu.
87151. No. 4731. Zairai, from Zenra Nando.
87152. No. 4732. Awa (Indian millet), from Zenra Nando.
87154 to 87156. From Zenra Hokudo.
87159. No. 5018. Kairyo (proved millet).
Japanese millet.
87161. No. 4520. Hie, from Kabel Keikido.
87162. No. 4706. Hie, from Chusei Hokudo.
87163. No. 4905. Hie (barn grass), from Chusei Nando.
87164. No. 4510. Saba, from Rensen, Keikido.
87165. No. 4376. Saba, from Zenra Nando.
87140 to 87199—Continued.

87136. No. 4737. Saba, from Zenra Nando.

87137 to 87138. Saba zaizai shu (buckwheat, native variety), from Zenra Hokudo.

87137. No. 4998.

87138. No. 5000.

87139. No. 5001.

87140. No. 5003.

87141. No. 5004.

87142. No. 5005.


87144. No. 5007.


87146. No. 4998. Saba, from Zenra Hokudo.

87147. No. 5000. Saba zairai shu (buckwheat, native variety), from Zenra Hokudo.

87148. No. 5001.

87149. No. 5003.

87150. No. 5004.

87151. No. 5005.

87152. No. 5006.

87153. No. 5007.

87154 to 87177. Gossypium hirsutum L. Upland cotton.

87155. No. 4998. Rikeechimen, from Keijo Keikido.

87156. No. 5000. Kengu suemu pumudo from Zenra Hokudo.

87157. No. 5001.

87158. No. 5003.

87159. No. 5004.

87160. No. 5005.

87161. No. 5006.

87162. No. 5007.

87163. No. 5008.

87164. No. 5009.

87165. No. 5010.

87166. No. 4737. Nando.

87167 to 87173. Saba zaizai shu (buckwheat, native variety), from Zenra Hokudo.

87167. No. 4998.

87168. No. 5000.

87169. No. 5001.

87170. No. 5003.

87171. No. 5004.

87172. No. 5005.

87173. No. 5006.

87174 to 87177. Gossypium hirsutum L. Upland cotton.

87175. No. 4998. Rikeechimen, from Keijo Keikido.

87176. No. 5000. Kengu suemu pumudo from Zenra Hokudo.

87177. No. 5001.


87178. No. 4516. Naked barley, from Keikido.

87179. No. 4709. From Chusei Hokudo.

87180. No. 4710. From Chusei Hokudo.


87182. No. 4508. Omugi, from Keikido.

87183 to 87185. From Chusei Hokudo.

87184. No. 4573. Zairaiso (original barley).


87186. No. 4575. Son.

87187. No. 4770. Kawa boko, from Zenra Nando.

87188 to 87199. From Chusei Hokudo. Omugi zaizai shu, a native variety.

87188. No. 4702. Tempori.

87189. No. 4703. Sonbaku.


87191. No. 4770. Kawa boko, from Zenra Nando.

87192. No. 5001.

87193. No. 5002.


87195. No. 5004. Tongu bori.

87196. No. 5005. Omugi zaizai shu, a native variety.

87197. No. 5006. Tongu katsu bori.


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. Poa- ceae. 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.


87205. No. 4395. Rikuto zaizai mochi (original gluten); an upland rice with small grain from Shini Keikido.

87206 and 87207. From Suigen, Keikido; paddy rice.

87206. No. 4396. Suito tamanshiki.

87207. No. 4397. Suito hoya shirinki (early shirinki).


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.

87218. No. 4533. Mame.
87222 to 87228. From Zenra Nando; paddy rice.
87223. No. 4533. Haku.
87224. No. 4534. Mame.
87229 to 87232. From Zenra Nando; upland rice.
87229. No. 4540. Haya shinriki.
87231. No. 4542. Ima.
87233 and 87234. From Chusei Nando; paddy rice.
87235 to 87256. From Zenra Hokudo; paddy rice.
87236. No. 4547. Shikoku.
87237. No. 4548. Daiso.
87239. No. 4550. Wai naka mi.
87242. No. 4553. Futafushi mari so.
87243. No. 4554. Suzuki so.
87245. No. 4556. Gan fu so. Seed with red hulls.
87247. No. 4558. Suigen to.
87249. No. 4560. Wase.
87250. No. 4561. Shu kakudo.
87251. No. 4562. Aikoku.
87255. No. 4566. Seikouzai so.
87256. No. 4567. Tamanishiki.
87258 to 87259. Paddy rice from Zenra Hokudo.
87258. No. 4569. Takachiho.

87260 to 87277. Upland rice from Zenra Hokudo.
87262. No. 4570. Mosanto.
87263. No. 4571. Kurukari santo.
87264. No. 4572. Mira tare.
87265. No. 4573. Zairai (native variety).
87267. No. 4575. Zairai shu.
87272. No. 4580. Rikuto (upland rice).
87274. No. 4582. Toyaji ohyara.
87275. No. 4583. Kokusan to.
87276. No. 4584. O Dari.
87278. No. 5280. Suto kuru kura miyako; paddy rice from Suigen Keikido.
87279. No. 5305. Rikuto kanekokmochi (Kaneko gluten); upland rice from Keikido, Keijo.
87280. No. 4588. 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.

87281 to 87285. PANICUM MILIACEUM L. Poaceae. Proso. 
87285. No. 4569. Black Chichiangu, from Chusei Hokudo.

87286 to 87344. PHASEOLUS spp. Fabaceae. 
87286 to 87320. PHASEOLUS ANGULABIS (Willd.) W. F. Wight. Adsuki bean.
87287 to 87344. From Chusei Hokudo.
87281 to 87344—Continued.

87298. No. 4581. Seki patsu.
87300. No. 4583. Puru patsu. A medium-sized green bean; should be excellent for sprouts.
87301 to 87315. From Zenra Hokudo.
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.
87307. No. 4984. Azuki zairai shu. A native variety which has a medium-sized, reddish-brown seed.
87340 and 87341. PHASEOLUS AUREUS Roxb. Rice 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.


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.

87350. No. 4514. Raiki mugi, from Keikido.


87351. No. 4600. From Chusei Hokudo.

87352. No. 4701. Furutsee.

87353. No. 4702. California.

87354. No. 4799. California, from Chusei Nando.

87356 to 87372. From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930.

87356. No. 4525. Komugi zairai shu, a native variety of wheat.

87357. No. 4565. From Chusei Hokudo. The grains are flat and round, clear white, with a flinty appearance.

87358. No. 5140. From Zenra Hokudo. Small, different-colored grains which look flinty.

87359 to 87363. From Japan and Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received April 12, 1930.

87359. VICIA FABA L. Fabaceae. Broad bean.

87360. From Chusei Hokudo. A medium-small, white bean with black hilum.

87361. No. 5152. Kintoki. From Keisho Hokudo. A medium-sized cowpea resembling Whippoorwill; marked or marbled with white.

87362. No. 4250. Soraname. From the Ikf-nawa 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.

87363. No. 4548. From Chusei Hokudo.

87364. No. 4579. Tongubu. From Chusei Hokudo. A medium-small, white bean with black eye.

87365. No. 5142. From Zenra Hokudo. Small, different-colored grains which look flinty.


87367. 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.

87368. No. 5142. From Zenra Hokudo. A very small, yellowish-white grain of flinty appearance.

87369. No. 5140. From Zenra Hokudo. A very small, yellowish-white grain of flinty appearance.


87371. No. 5034. Sarpuma.


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.


87374. No. 4506. From Keikido. Yellow flint corn.

87375. No. 4506. From Keikido. Yellow flint corn.

87376. No. 4506. From Keikido. Yellow flint corn.

87377. No. 5140. From Zenra Hokudo. A very small, yellowish-white grain of flinty appearance.

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

87379. No. 4700. From Chusei Nando.

87380. No. 4506. From Keikido. Yellow flint corn.

87381. No. 4506. From Keikido. Yellow flint corn.


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 pejibaye (Guilielma utilis). Like the pejibaye, 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.

Voahena 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, blotted 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.


87388 to 87398—Continued.

87390 to 87392. MEDICAGO SATIVA L. Fabaceae. Alfalfa. No. 311. From Samarkand, Uzbek Republic (Turkestan).


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


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

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

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

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. Variety Adutxarhdam.

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.


87406 to 87407—Continued.
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<td>Do.</td>
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1 Second crop.

87431. CITRUS AURANTIUM L. Ruta-ceae. 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. Zin-ziberaceae. 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, purplish lilac bracts. It is native to India and is considered to be the showiest of the curcumas.

87433. CURCUMA ZEDDA (Bergius) Roxc. Zin-ziberaceae. 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. Phoenicceae. 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.

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.


87438. Cotton grown in Upper Egypt.

87439 to 87445. OLEA EUROPARA 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, picking olive. These cuttings were taken from trees selected for the
PLANT MATERIAL INTRODUCED

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.
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.

87447. No. 2. Chinese table grape.

87448. CHONDILLA 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. Ghabach.
87451. Kabasma.
87452. Koptchak.
87453. Plavai.
87454. Bka-tsitel.
87455. Serektia.

87456. SACCHARUM sp. Poaceae. From Cuba. Seeds collected by H. N. Vinall, Bureau of Plant Industry. Received April 23, 1930.


87462 to 87465.


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. 87438.

87466 to 87469.

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.


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. Rosaceae.

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.


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.


From Batan, 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 Lamiao Experiment Station, Batan. This variety was introduced into the oriental Tropics in early times and is cultivated most extensively in Java, and next to Java 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 downy, 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. Kow lai, striped rice.

87479. Kow 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.

87483. From Zistersdorf.

87484. From Ziersdorf.

87485. From Lla a. d. Thaya.

87486. From Durnkrut.

87487. From Poydsdorf.

87488. From Dobermannsdorf.

87489. CROTAFARIA sp. Fabaceae.

From Mayaguez, Porto Rico. Seeds presented by Dr. C. 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, 1530.

87490. DOMBEYA LEUCOMACRANtha 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.


A small, subtropical evergreen tree, normally 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.


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. A wild banana bearing large terminal spikes of bright-yellow flowers. A good shade tree.

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, Rift valley, 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. Bignoniacae.

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 Musaceae. Banana.

A wild banana from western Madagascar, where the natives call it the Molukka Islands. The fruit is globular, with a flavor from that of an orange to a large melon.

87497 to 87519—Continued.

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

For previous introduction see No. 77162.


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 INERMIS (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.


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

For previous introduction see No. 87496.

87502. CALYPEROSYNE OCCIDENTALIS (Swartz) G. Maza. Phoeicaceae.

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. 58307.

87505. CASSIA NODOSA Buch.-Ham. Caesalpiniaceae.

No. 43. Pink and white shower.

For previous introduction see No. 65732.

87506. CASSIA SPECTABILIS DC. Caesalpiniaceae.

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


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 HYMENABIPOLIA (Moric.) Kuntze. Caesalpiniaceae.
87497 to 87519—Continued.

No. 48. Quisbrachacha. One of the hardiest 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 ob-long, crenate-serrate, pubescent leaflets, and panicles of greenish-white flowers.

87510. ELaMANNUS PHILIPPENSISS Perr. Elaeagnaceae.

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

For previous introduction see No. 64762.


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.


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


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. Tilliacaeae.

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 3 to 6 inches across. It is native to Cuba and Mexico.


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.


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; 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.


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

87523 to 87636—Continued.


87524. No. 4819. Orukon, from Geunnamen; a large, nearly round, glossy, yellow bean with light russet-brown hilum.

87525. No. 4820. Kugatsuuta (September), from Bensannen; a mixture of yellow-seeded varieties.

87526. No. 4821. Zairai pakute, from Mosanmen; a medium-large, glossy, yellow bean with pale hilum.


87530. No. 4825. Giekutansen, from Shikimeun; a medium-sized, oval, glossy, yellow bean with pale hilum.


87533. No. 4828. Oryumakuta (yellow dragon's eye), from Shikimeun. A medium-sized, oval, deep glossy yellow bean with large, dark-brown hilum.


87536. No. 4831. Purute, from Seisenmen. A medium-large, oval, green bean with black hilum and green germ.


87540. 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.


87581. No. 4857. Sekishoku zuunokon, from Dajimen. A small, nearly round, dark, glossy, brown bean.


87585. No. 4841. Antashu, from Junsenmen. A mixture of black, brown, yellow, and yellow and black beans.


87587 to 87589. From Heisan Hokudo.

8757. No. 4843. Heishokuta, from Tozanmen. A large, oval, glossy, yellow bean with pale hilum.

87588. No. 4844. Hakkasota (early white flower), from Unzamnen. A medium-sized, oval, glossy, yellow bean with brown hilum.

87589. No. 4845. Kuromokuta (black eye), from Kankamen. A medium-sized, oval, glossy, yellow bean with yellow hilum, which has a black eye.


87593. No. 4849. Kurome souta (early black eye), from Shojojamen. A medium-sized, nearly round, yellow bean with brown hilum.

87594. No. 4850. Shoryushotaya (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 Itosun (No. 17268).

87595. No. 4851. Kurumepakuta, from the Hekidomen. A large, oval, deep glossy yellow bean with large black hilum.

87596. No. 4852. Purute, from Kokamnen. A medium-large, oval, yellowish-green bean with brown hilum and green germ.

87597. No. 4853. Togomata, from Rigenmen. A large, oval, slightly flattened, black bean with the testa split into fine white net-work.

86147—52—4
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 Kikainmen. 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.


87600. No. 4876. Komujonkon, from Ojomen. A large round, flattened, glossy, black bean with yellow germ.

87601. No. 4877. Banta (late variety), from Nejetsumen. A large, oval, glossy, yellow bean with pale-brown hilum.

87602. No. 4878. Bamukan, from Yanbakumen. A large, oval, slightly flattened, glossy, brown bean with yellow germ.

87603. No. 4879. Banta (spotted bean), from Seimen. A medium-sized, oval, yellow, bean with black saddle.

87604. No. 4880. Hanaaulukon; from Gusenmen. A large, oval, glossy, yellow bean with light-brown hilum; tests slightly split.


87606. No. 4882. Oiarukon, from Choyomen. A large oval, glossy, yellow bean with pale hilum.

87607. No. 4883. Anpenkon, from Eickimen. A large, oval, light-yellow bean with pale hilum.

87608. No. 4884. Tansensusudo, from Hadomen. A large, oval, glossy, greenish-yellow bean with pale hilum and green germ.


87612. No. 4888. Tansempakude, from Tennenmen. A very large, oval, glossy, yellow bean with pale hilum.

87613 to 87621. From Kankyo Hokudo.

87613. No. 4889. Oiarukon, from Jooshinwan. A very large, nearly round, glossy, yellow bean with pale hilum.
87523 to 87636—Continued.
87566. No. 5646. Maruganyaku (pill). A small, oval, green bean with black hilum and green germ. It may be of value for sprouts.

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.


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.

37639 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.

87645 to 87702—Continued.
87651 to 87657. From Kelsho Hokudo.
87652. No. 5202. Mongutanugori.
87653. No. 5203. Taubamagori.
87658. No. 5208. Chomicho.
87659. No. 5209. Burugunie.
87660. No. 5210. Sofukygorava.
87661. No. 5211. Sekezu.
87662. No. 5212. Manshu.
87663. No. 5213. Shiroku.
87664. No. 5214. Gojunichishu (50 days).
87665. No. 5215. Takebaawsa (bambbool leaf millet).
87666. No. 5216. Mupureshu.
87668. No. 5270. Awa, from Kelsho Nando, Hokudo.
87669. No. 5292. Awa hendoa:hoanjoumil (Italian millet), front Kokaido.
87671 to 87689. From Helan Nando.
87676. No. 5363. Akanozo.
87680. No. 5367. Kokaido.
87681. No. 5368. Shohe.
87686. No. 5373. Moreizo.
87687. No. 5374. Keizou.
87688. No. 5375. Tatsuokashu.
87693. No. 5380. Zukorichiyama.
87645 to 87648. From Zenra Nando.
87645. No. 4727. Mochiauca.
87647. No. 4729. Tenjitau.
87648. No. 4730. Mozau.
87649 to 87702—Continued.
PLANT MATERIAL INTRODUCED

87645 to 87702—Continued.

87702. No. 5384. Hintei.
87703. No. 5385. Toyajizo.
87704 and 87705. From Heian Hokudo.

87706. No. 5425. Akaguki (red straw).
87707. No. 5426. Shitoguki (white straw).

87709 to 87718. ECHINOCHLOA CRUS-GALLI 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.

87710. No. 4705. Hie, from Chusei Hokudo.
87713 to 87716. From Keisho Hokudo.

87714. No. 5255. Hie (barn grass).
87715. No. 5256. Hie (barn grass).
87716. No. 5257. Tadorakupii.
87717. No. 5258. Chiyukupii.
87718. No. 5267. Hie, from Keisho Nando.
87719. No. 5297. Hie chanepii, from Kogendo.
87720. No. 5329. Charupii.
87722. No. 5331. Merumomiru.
87724. No. 5333. Teujoeshu (original variety).
87727. No. 5336. Soba, from Heian Hokudo.

87728 to 87732. From Heian Nando.


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.

87744 to 87783. Hordeum vulgare Coeleste L. 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.

87744 to 87783. Originally from Zenra Nando.

87744. No. 4759. Hadaka mugi.

87745. No. 4760. Hadaka mugi.

87746. No. 4761. Sarutongu pori.

87747. No. 4762. Hadaka mugi.


87749. No. 4764. Hadaka mugi.

87750. No. 4765. Hadaka mugi.


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


87754. No. 5059. Tongu pori.

87755. No. 5060. Tongu pori.

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.


87769 to 87777. From Keisho Hokudo, Chosen.

87769. No. 5164. Haru maki shu (spring sown).

87770. No. 5165. Okimaki shu (fall sown).

87771. No. 5166. Okimaki mugi.

87772. No. 5167. Omugi.

87773. No. 5168. Okimaki shu (fall sown).

87774. No. 5169. Denrai baku.


87776. No. 5171. Omugi.

87777. No. 5172. Omugi.

87778. No. 5173. Subaku.

87779. No. 5174. Shiuka kushu (Chinese variety).

87780. No. 5175. Obaku.

87781. No. 5176. Omugi.


87783. No. 5178. Hora O mugi (spring barley).

87784. No. 5179. Horu maki shu (spring barley).

87785. No. 5180. Tongu bori.

87786. No. 5181. Akimaki bori.

87787. No. 5182. Dobaku.


PLANT MATERIAL INTRODUCED

87845 to 87905—Continued.


87847 to 87854. Paddy rice, from Chosen.

87847. No. 4774. Ilaya shinriki.

87848. No. 4775. Tama nishiki.

87849. No. 4776. Kokura miyako.


87853. No. 4781. Omachi.


87855. No. 4783. Sekizanso.

87856. No. 4784. Wase.


87859 to 87861. Paddy rice, from Kokaido.


87864. Paddy rice from Heian Nando.


87867. No. 5313. Taikyu.

87868. No. 5314. Muto.


87870. No. 5316. Atikoku.


87874 and 87882. Paddy rice, from Heian Hokudo.


87876. No. 5434. Sekizan.


87878. No. 5435. Asaga.


87881 and 87882. Paddy rice, from Heian Hokudo.


87884. No. 5434. Sekizan.


87891. No. 5463. Sekizan.

87892. No. 5464. Iuchinka.

87893. No. 5465. Bakuso.

87845 to 87905—Continued.


87896. No. 5468. Hakusenso.


87898 to 87900. Paddy rice, from Kankyo Nando.


87899. No. 5470. Henode (sunrise).

87900. No. 5471. Wase Ouno (Ouno's early).


87902 and 87903. Paddy rice, from Kankyo Hokudo.

87902. No. 5473. 0idakaba.

87903. No. 5474. Ikashi wase, an early variety.

87904 and 87905. Upland rice, from Kankyo Hokudo.


87906 to 87931.

87906. No. 5503. Indian millet, from Kankyo Hokudo.

87907 to 87909. From Chusei Hokudo.

87907. No. 5504. Odashero No. 5.

87908. No. 5505. Ikashi wase, an early variety.

87909. No. 5506. 00 wase (Ouno's early).


87911. No. 5508. Indian millet, from Kankyo Hokudo.

87912. No. 5509. 00 wase (Ouno's early).


87914 to 87922. From Zenra Hokudo.


87915. No. 5512. Tansan zairai, from Kankyo Nando.

87913. No. 5513. 0ochikibi, from Zenra Nando.

87914. No. 5514. 0ochikibi, from Zenra Nando.

87915. No. 5515. 0ochikibi, from Zenra Nando.

87916. No. 5516. 0ochikibi, from Zenra Nando.

87917. No. 5517. 0ochikibi, from Zenra Nando.

87918. No. 5518. 0ochikibi, from Zenra Nando.

87919. No. 5519. 0ochikibi, from Zenra Nando.

87920. No. 5520. 0ochikibi, from Zenra Nando.

87921. No. 5521. 0ochikibi, from Zenra Nando.

87922. No. 5522. 0ochikibi, from Zenra Nando.

87923 to 87925. From Kesho Hokudo.

87923. No. 5523. 0ochikibi, from Zenra Nando.

87924. No. 5524. 0ochikibi, from Zenra Nando.

87925. No. 5525. 0ochikibi, from Zenra Nando.

87926. No. 5526. 0ochikibi, from Zenra Nando.

87927. No. 5527. 0ochikibi, from Zenra Nando.

87928. No. 5528. 0ochikibi, from Zenra Nando.

87929. No. 5529. 0ochikibi, from Zenra Nando.

87930. No. 5530. 0ochikibi, from Zenra Nando.

87931. No. 5531. 0ochikibi, from Zenra Nando.

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 87938. Phaseolus Angulatus (Willd.) W. F. Wight. Adsuki bean.

87932. No. 5287. Azuki ak amashu (azuki red bean), from Kankyo Hokudo.


87934 to 87936. From Zenra Nando.


87937 to 87938. From Zenra Nando.

87937. No. 5292. Zairai shu (native variety).

87938. No. 5293. Zairai shu (native variety).

87939. Phaseolus aureus Roxb. Mung bean.


87940 to 87956. Phaseolus Angulatus (Willd.) W. F. Wight. Adsuki bean.


PLANT MATERIAL INTRODUCED

87932 to 87977—Continued.


87949. No. 5443. *Hakushoku* (white bean). Round to oblong, dull creamy white or buff, with a rather long, white hilum.


87951 to 87977. Received March 10, 1930, through the Bureau of Industry, Government General, Keijo.

87951 to 87969. PHASEOLUS AUREUS Roxb. Mung bean.

87952. No. 5288. *Rakutousau*, from Kokaido. Dull-green seeds which are quite uniform in size.


87955 and 87956. From the Tamai Branch Experiment Station, Tamai Saitama Ken, Japan, March 24, 1930.


87958. No. 5406. *Akashu* (red bean).

87959. No. 5422. *Uzura* (quail), from Heian Hokudo.


87961 to 87966. From Kogendo, Chosen.

87961. No. 5477. *Kotenaahi*. 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.


87963 to 88024. From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

87963 to 87966. PHASEOLUS CALCARATUS Roxb. Rice bean.

87964. No. 4724. *Furansu*.


87966. No. 5289. *Osaya endo* (large-pod pea), from Kakeido.


87970 to 87973. From Heian Nando.

87970. No. 5403. *Zamame*.


87973. No. 5406. *Akashu* (red bean).


87975 to 87977. From Kankyo Nando.

87976. No. 5476. *Kotenaahi*. 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.


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.

87978. No. 4724. *Furansu*.

87979. No. 4725. *Endo*.


87982. No. 5289. *Osaya endo* (large-pod pea), from Kakeido.


87987. SECALE CEREALIS L. Poaceae. Rye.


TRITICUM AESTIVUM L.

Dorsett and W. J. Morse, agricultural

No. 5294. Morokoshi noorusuku.
From Zenra Hokudo.

87978 to 88024—Continued.
87988. No. 4733. Morokoshi.
87990. No. 4735. Machisangu.
87991. No. 4797. Susukuru, from Chusel Nando.
87992 to 88008. From Zenra Hokudo.
87994. No. 5084. Susu zairai shu.
87995. No. 5085. Susu zairai shu.
87996. No. 5086. Susu zairai shu.
87997. No. 5088. Mebusu.
87998. No. 5089. Susu zairai shu.
87999. No. 5090. Susu zairai shu.
88001. No. 5092. Gurusu.
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.
88009. No. 5271. Morokoshi, from Keisho Nando.
88010. No. 5294. Morokoshi noorusuku, from Kokaido.
88011 to 88016. From Helan Nando.
88011. No. 5348. Mozakususu.
88012. No. 5349. Mersusu.
88013. No. 5350. Tsungumungisusu.
88014. No. 5 3 5 1 . Miepsuekujoshu (thick apike, common).
88015. No. 5352. Meiexcelakususu (Mie sale white).
88016. No. 5353. Zairai shu (native variety).
88018. No. 5 4 8 1 . Eikozaizai, from Kankyo Nando.
88019 to 88022. From Keisho Hokudo.
88019. No. 5158. Mochisu.
88020. No. 5159. Eumokusu.
88021. No. 5160. Wasechu.
88023. No. 5453. Morokoshi, from Kogendo, Chosen.
88025 to 88068. TRITICUM AESTIVUM L. (T. vulgare VIII.) PASCARE. Common wheat.


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

88025 to 88068—Continued.
88025 to 88027. From Zenra Nando.
88025. No. 4739. Imumiru.
88028 and 88029. From Chusel Nando.
88028. No. 4800. Eshima.
88029. No. 4901. Tomiruru.
88030 to 88033. From Zenra Hokudo.
88030. No. 5022. Utongumiru.
88031. No. 5023. Komugi zairai shu (wheat, native variety).
88034 to 88058. From Keisho Hokudo.
88034. No. 5218. Orumiru.
88036. No. 5220. Soukaku.
88038. No. 5222. Soukaku.
88041. No. 5225. Wase komugi (early wheat).
88049. No. 5233. Soukaku.
88052. No. 5236. Ejima.
88053. No. 5237. California.
88054. No. 5238. Sarushirimiru.
88056. No. 5240. Potsumiru.
88060. No. 5291. Komungi California, from Kokaido.
88061 to 88066. From Helan Nando.
88063. No. 5392. California.
88065. No. 5394. Yuuboushu.
88067. No. 5450. Komugi, from Kogendo.
88068. No. 5479. California, from Kankyo Nando.
PLANT MATERIAL INTRODUCED

88069 to 88089. From Chosen. Seeds collected by P. H. Dorrset and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received May 6, 1930.

88069 to 88089 received through the Bureau of Industry Government General, Keiio, March 10, 1930.


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.

**A tropical Asiatic ornamental tree, 40**

**continues.**

**Catskill**

**No. 2.** A subtropical shrub or small tree up to 20 feet high, with lanceolate leaves 3 to 8 inches long; white, salverform flowers an inch across, and globose yellow, berrylike fruit 2 to 3 inches long. It is native to Central America and the West Indies.

**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, long 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.

**No. 78.** Marumade 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.

**No. 57.** A native brown perennial cotton.

**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.

**No. 55.** 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 edible but not agreeable in flavor. It is native to Central America and the West Indies.

**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.
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 Cuauan 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. LYCOPOERNS 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. MAGNIFERA INDICA L. Anacardiaceae. Mango.

88124. No. 83. Mammee. 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. indica and Asia, 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. NOBONHIA 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. PHYLLANTHUS EMBLICA L. Euphorbiaceae.

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-obovate, 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. POSOQERIA MULTIFLORA LEM. Rutaceae.

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. 78521.

88133. SECURIDACA DIVERSIFOLIA (L.) Blake Polygalaceae.

No. 69. 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 GRISB. Symplocaceae.

No. 71. A bushy shrub, not unlike a cestrum, with terminal clusters of white flowers, followed 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.


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

For previous introduction see No. 70559.

88137. TRICHILLIA 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. THOIPHERIS JAMAICENSIS L. Malpighiaceae.

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

88139. WALLENIA LACIFOLIA (JACQ.) SWARTZ. Myrtaceae.

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 MILL. Fabaceae. Persian clover.

From Persia. Seeds presented by Jall 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. 89293.
88141 to 88146. *Medicago sativa* L. Fabaceae.


Señor Antonio Estaban de Faura, at the seed station of the Madrid Agricultural Station, says that the two alfalfas, *Aragón* and *Totona*, do not resist the parasite "cuscuta"; the *Medicago 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. *Medicago rustica*.
88143. *Totona*.

88144 to 88146. Purchased from J. Vey Sallettes.
88144. *Aragon*.
88145. *Medicago rustica*.
88146. *Totona*.

88147 to 88164.

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


A tree widely distributed in tropical Africa and cultivated in India. It has pinnately compound leaves 11 to 25 oblong, membranaceous 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.


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. 80157.

88149. *Cassia sophiacea* L. Casalpinaeaceae.

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.


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.


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. 45618.

88153. *Doliocarpus lablab* L. Fabaceae.

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.


Sea-island cotton.

88155. *Indigofera galagoidea* DC. Fabaceae.

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 yellow flowers. It is native to southeastern Asia.

For previous introduction see No. 42539.


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. 73281.


Sensitivelanth.

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


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. 73281.


India-mulberry.

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

For previous introduction see No. 73017.


A wide-climbing, woody vine with trifoliolate 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.


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

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. **PARKIA 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.


88166. No. 571. American.
88170. No. 679. Dubek aja suluk.
88172. No. 680. Dubek gaspza.
88173. No. 29. Dubek kwantli.
88176. No. 432. Dubek.
88177. No. 650. Dubek.
88178. No. 674. Dubek.
88179. No. 675. Dubek.
88181. No. 44. Dubek nikita.

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. 42922.


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 3 to 20 dense flat-topped clusters 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 15, 1930.

88185. **CALOPOGONIUM OETHOCARPUM** 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.

For previous introduction see No. 41931.

88187. **PHASEOLUS ADENANTHUS** G. Meyer. Fabaceae. 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. 73395.

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 Sieger and Laxton’s Noble.

88195 and 88196. **MANIHOT ESCULENTA** Crantz (M. utilissima Pohl.). Euphorbiaceae. Cassava.
38197 to 88196—Continued.

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

88196. A black variety.

88197. A white variety.

88197 to 88204.

88201. ACALPYHA VARIABILIS Kl. For previous introduction see No. 74132. 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.

88202. ASPIDOSPERMA QUEBRACHO-BLANCO (Ruiz and Pav.) Quebracho-blanco. A graceful tree up to 75 feet high with alternate, mostly entire leaves and small, yellowish flowers followed by flat wooden pods containing thin, circular-winged seeds nearly 3 inches across. It is native to Argentina.

88203. BAUHINIA FORFICATA Linn. Bell bauchinia. 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.

88204 and 88205. AMPHILPHIUM spp. Bignoniaceae.

88204. AMPHILPHIUM sp.

88205. AMPHILPHIUM sp.

88206. ARISTOLOCHIA ESPERANZAE Kunz. Aristolochiaceae. A tender climber from Paraguay, closely related to Aristolochia gilbertii. 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 south Brazil.

88208. ASPIDOESPERMA 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 wooden pods containing thin, circular-winged seeds nearly 3 inches across. It is native to Argentina.

88209. BAYHILLIA FORFICATA Link. Caesalpinaceae. Bell bayhills. 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.

88211. BOCCONIA FRUTESCENS Lillo. Myrtaceae. 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. 49063.

88212. BOKHAMERIA CAUDA-TA 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, spike-like 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 3 inches long, having the outer segments pale red tipped with green and the inner ones greenish yellow. It is native to Peru, Bolivia, and Argentina.

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

For previous introduction see No. 49063.

88214. SIMAROBA LUMBERGII (Kunth) Humb. and Bonpl. A large shrub or tree with ovate or ovate-lanceolate leaves 6 inches long and funnel-shaped flowers half an inch across in small clusters. It is native to Argentina.
PLANT MATERIAL INTRODUCED

88197 to 88264—Continued.

88214. CARALPINIA MELANOCARPUS Griseb. Caesalpinioideae.

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

88215. CASSIA EXCELSA Schrad. Caesalpinioideae.

A shrub or small tree 20 to 30 feet high, in 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. CASTELLA 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. CEDRELLA 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-elliptic leaflets about 4 inches long, and small, white flowers in panicles over a foot in length. Native to Tucuman, Argentina.

88218. CESTITIS TRIFOLIA 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 ALTISIMA (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-white 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 with compound leaves. The white, papery 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.

A handsome tree 20 feet high, abundant in Argentina and in the river Provinces of Paraguay. The bole 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 prized to a limited extent for stuffing pillows and can be used commercially for life preservers, jackets, water wings, mattresses, etc. The tree has red-tinted 8° C. without injury to its flowers, although the boils require hot sun.

For previous introduction see No. 54561.

88222. CLIONEMA GIGANTEA L. Capparidaceae.

A shrubby plant 3 to 5 feet high with palmately compound leaves made up of seven oblongate leaflets, and greenish flowers with linear petals 2 inches long which adhere by their margins and open only on one side. It is native to tropical America.

88223. CNICOTHAMNUS LOBENTZII Griseb. 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 BUFXIFOLIA 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 elliptical 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. DIONIESIS SALICIFOLIA Griseb. Asteraceae.

A sub tropical 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.

A shrub up to 15 feet high with linear to oblongate viscous leaves 2 to 6 inches long and small, lateral corymb 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 LOBENTZII 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.


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 key-shaped pods. It is native to Brazil.

88231. EUPATORIA HIEMALE Lillo. Asteraceae.

A shrub or small tree up to 12 feet high, closely related to *E. lasiophthalnum*. The reddish-violet flower heads are long stemmed, and the leaves are broadly rounded-ovate.
88197 to 88264—Continued.

88232. EUPATORIUM ODORATUM L. Astera-ceae.

A vigorous shrub with long leaning or erect stems, having compound leaves, flowers on long stalks, and flatish coryumbs 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 COCO (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 Inam. A somewhat spiny tree with pinnate leaves about 5 inches long and showy yellowish-white 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 mate (Ilex paraguariensis), from which it differs in having leaves less leathery in texture and in a smaller indoence. The ellipsoidal fruits are very dark red or black.

88237. HELIOCARUS AMERICANUS L. Tillaceae.

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. JUGLANIS AUSTRALIS Griseb. Juglandaceae.

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. OPHRYOSPORUS CHARUA (Griseb.) Hieron. Asteraceae.

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

88242. PASSIFLORA MAXIMILIANA Bory. Passifloraceae.

A tropical perennial climber with membranous bloomed leaves, white flowers an inch across, and ovoid fruits over an inch long. Native to tropical Brazil.

88243. PIPTADENIA BORBLOS A (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.

A handsome timber tree native to Brazil, with 15 to 20 pairs of pinnate leaves, more than one inch long. The flowers occur in peduncled heads in the axils of the leaves, and the pods are about an inch long.

88245. 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-purple wood is of almost flinty hardness.

88246. PROSOPIS SERICANTHA Gill. Mimosaceae.

A subtropical tree, 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. PSEUDHATIA sp. Asclepiadaceae.

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

88249. PTEROGYNNE NITENS Tulane. Caesalpinaceae.

A tall, stout, evergreen tree, up to 100 feet high, abundant in parts of Argentina and Brazil. It has pinnate 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. Myrtaceae.

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

88251. RAPANEA sp. Myrtaceae.

Subtropical trees or shrubs with alternate usually entire leaves and small,
white or pink flowers in dense axillary clusters.

88253. SAMBUS PERUVIANUS 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 LOKBNTZII (Griseb.) Engl. Anacardiaceae. Quebracho.

A climbing shrub with alternate biter- branched terminal panicles. The tree is a rapid grower, and its horizontal branches make it an excellent shade tree.

88266 to 88275. LUPINUS spp. Fabaceae. 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.
88276. Oncoba echinata Oliver. Flacourtiaiceae.

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.

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

Referred 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 22, 1930.

Received as Mucuna bispurita, for which a place of publication has not been found.


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. Haekubu (Mukden white). A medium-sized, oval, light glossy yellow bean with pale 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.


88278 to 88313—Continued.


88289. No. 5659. Experiment Station No. 295. A medium-sized oval, glossy, yellow bean with pale hilum. Used as grain.


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. 492. A medium-small, oval, much flattened, black bean with yellow germ. Very similar to Wilson-Fue. Used as forage.

88293. No. 5663. Experiment Station No. 224. A mediumsized, 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 Chinchan.

88296. No. 5685. From Kiyuan.

88297. No. 5686. From Changchun.

88298. No. 5687. From Hsian.

88299. No. 5688. From Mutaizhao.

88300. No. 5689. From Penhshiu.

88301. No. 5690. From Tsaiuchiatun.

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

88303. No. 5692. From Sanchanho.

88304. No. 5693. From Ssupingkai.

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 Kahisho.

88308. No. 5697. From Kuoohlatien.

88309. No. 5698. From Shuangcheng-puk.

88310. No. 5699. From Touren.

88311. No. 5700. From Tainanchi.

88312. No. 5701. From Changtu.

88313. No. 5702. From Chirin.
88314. CARPOPTOCHRONE BRASILICENSES (Raddi) Endl. Flacourtiaeae. 

Sapucainha.

From Vicos, 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.

The fruits are about 4 inches in diameter.

For previous introduction see No. 77620 to 88322.

88318 and 88319.

From Perth, Western Australia. Seeds presented by Miss Ada 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 large panicles of small flowers followed by winged fruits about 2 inches long. It is native to Australia.

88319. NUTTSTIA 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. GOSSEYPIUM RARADENSE 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. Saka No. 4.

88323. LAPAGERIA ROSEA ALBIFLOSA 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 MUELLE BENT. 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. 50687.

88325 and 88326.

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

88325. FICUS GLOBOUSA 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. Micou.

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. Haught. 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.


From Baguio, Philippine Islands. Seeds presented by P. J. Weston, 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. Sharrgapani, Economic Research Department of 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 semisaline conditions.

88331. Patnai.
88332. Chingrighushi (5).
88333. Khraisaji (8).
88334. Baneful.


88336 to 88342. Normally transplanted varieties of winter paddy.

88336. Badkalamkati (26).
88337. Dudaar (Dacca No. 5).
88338. Indrasail (Dacca No. 1).
88339. Bhasamank (Chinsura No. 8).
88340. Jhingasail (Dacca No. 15).
88341. Daudkhan (Dacca No. 9).
88342. Nagra.

88343 to 88347. From the Italian Riviera. Seeds collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, with the Allison Y. Armour expedition. Received June 11, 1930.

88343. CITRUS sp.

No. 3501. La Mortola Gardens, May 27, 1930. A very thick-skinned, tiny round orange of deep-orange color and without much flesh, but having a delicious flavor. May be resistant to the virus of Saishuto Island, Chosen.

88344. CLEMATIS ARMANDI × METENIANA. 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 almost im- mense clusters of white flowers. The vine has stood a temperature of 18° F., likes a moist, limestone soil, and grows in partial shade.


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.


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, white flowers followed by red drupes an inch long. The plant has stood 18° F. without injury.

For previous introduction see No. 70525.

88347. VITIS PIASECKII Maxim. Vitaceae.

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 Kaituan, Manchuria.

88349. No. 5718. Fukukingen. A medium-sized, oval, glossy, yellow bean with pale hilum. This is a variety de- veloped by the South Manchurian Railway Experiment Station at Kung-Chuling, Manchuria.

Nos. 88360 to 88363 were received May 14, 1930, from the Island Master of Salisbury Island, Chosen.

88361. No. 5730. Purukunkon (red-yel- low). A medium-small, oval, glossy,
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—Continued.

From Victoria, Cameroon, Africa. Seeds presented by T. D. Maitland, Superintendent, Botanic Gardens. Received June 17, 1930.

88364. ARISTOLOCHIA GOLDBERANA 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.


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. FUNTEMIA 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.


88369. PARKIA FILICODA 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. PHYTOSIGMA VENENOSUM Balfour. Calabar-bean. A woody vine with trifoliate leaves having broadly cordate leaflets 5 inches long, and lax, drooping racemes 4 inches 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. ARISAEA POLYPHYLLUM (Blanco) Mert. Araceae.

From the Philippine Islands. Seeds presented by P. J. Woster, 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.


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, viscous 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. MEDILOCAGO SATIVA L. Fabaceae. Alfalfa.

From Santiago, Chile. Seeds presented by Alberto J. Wiedmaier, Director, Estacion Experimental de la Sociedad Nacional de Agricultura. Received June 24, 1930.

Varieties that are native to Chile.

88373. Chilenia de rulo de Olpalco.

88374. Chilenia 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.

88377. No. 5. 88386. No. 23.


88379. No. 11. 88388. No. 25.


88382. No. 16. 88391. No. 31.

88383. No. 17. 88392. No. 33.
88375 to 88416—Continued.

88393. No. 35. 88405. No. 52.
88394. No. 37. 88406. No. 53.
88395. No. 39. 88407. No. 54.
88396. No. 41. 88408. No. 55.
88397. No. 42. 88409. No. 56.
88398. No. 43. 88410. No. 57.
88399. No. 44. 88411. No. 58.
88400. No. 45. 88412. No. 59.
88401. No. 47. 88413. No. 60.
88402. No. 48. 88414. No. 61.
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 SINESIS (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-fruit variety, almost spherical in shape and of delicious sweetness.


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.


From Sindh, 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 Sindh 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. Pottane, Institut des Recherches Agronomiques de l'Indochine, Division de Botanique. Received June 28, 1890.


88425. BAUHINIA Reticulata DC. Caesalpinaceae.

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. Caesalpinaceae. 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. DIOPSYROS sp. Diospyraceae. Persimmon.

Found growing in very rich soil.


Oil cotton from the Phorien region.


88430. INDIGOFERA sp. Fabaceae. Indigo.

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, 1890.

Seeds of one of the better types of pistachio.
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