

16901
28

LIBRARY RECEIVED
★ JUL 6 1931 ★
U. S. D. Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE



INVENTORY No. 101

Washington, D. C.

Issued June, 1931

**PLANT MATERIAL INTRODUCED BY THE DIVISION OF FOREIGN
PLANT INTRODUCTION, BUREAU OF PLANT INDUSTRY, OCTOBER 1
TO DECEMBER 31, 1929 (Nos. 81620-82599)**

CONTENTS

	Page
Introductory statement.....	1
Inventory.....	3
Index of common and scientific names.....	45

INTRODUCTORY STATEMENT

The plant material included in this inventory (Nos. 81620 to 82599) for the period from October 1, 1929, to December 31, 1929, represents very largely the collections made in the Orient by W. J. Morse and P. H. Dorsett. Since forage crops in general and soybeans in particular were the aims of this expedition, it is not surprising that over 250 samples are represented. They include types and strains ranging from those bought from farmers' fields to specialized samples representing local selection work. It is interesting to observe also among the notes given for Nos. 81762 to 81786 the extent of variations already observed and isolated at the several experiment stations and to note that their collections include strains originally obtained outside of Japan. Red clovers also are well represented with samples collected in the wild in many parts of Japan, three samples coming from the Koton Experiment Station at Hokushu from seed originally obtained from Finland and one from Sweden; also four collections were obtained from Chosen.

A few alfalfas are included, some collections being from native sources, while others are purchases, but all resulting from the work of H. L. Westover, of the Division of Forage Crops and Diseases.

Adsuki beans are also included in several numbers as a result of the collecting work of Messrs. Dorsett and Morse. These show almost as much variation in character and in origin as do the soybeans. Most of these were obtained in Chosen, together with samples of mung beans and rice beans from the native markets.

Lespedezas are included also in the general collections from Dorsett and Morse, all being received as unidentified species.

In addition to the material sent in by the explorers already mentioned, this inventory includes material sent in by Messrs. Ryerson, Alderman, and Leslie from Canada, by R. K. Beattie from Japan, and by W. E. Whitehouse from Persia, as well as material received in exchange from foreign collaborators and that procured by purchase.

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., February 18, 1931.

INVENTORY¹

81620. PTEROCARPUS SERICEUS Benth.
Fabaceae.

From Salisbury, Southern Rhodesia, Africa. Seeds presented by the Forest Officer, Department of Agriculture, Salisbury, at the request of C. E. Legat, Chief Conservator of Forests, Pretoria. Received October 22, 1929.

An unarmed evergreen tree, native to southern Africa, with alternate, unequally pinnate leaves, shining silky beneath or on both sides, and oval-roundish pods about an inch and a half long.

For previous introduction see No. 50179.

81621 and 81622. VITIS VINIFERA L.
Vitaceae. European grape.

From Bulgaria. Seeds obtained through George L. Husmann, Bureau of Plant Industry. Received October 23, 1929.

81621. A red variety.

81622. A green variety.

81623. LILUM sp. Liliaceae. Lily.

From Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received October 26, 1929.

No. 1378. Obtained from plants growing in the Ainu village of Shirai, southern Hokushu, September 29, 1929. An edible species.

81624 to 81633.

From Quetta, India. Seeds purchased from the manager, Quetta Fruit Agency. Received October 24, 1929.

81624 to 81627. CITRULLUS VULGARIS Schrad. Cucurbitaceae. Watermelon.

81624. A black-striped variety.

81625. *Mashedi quality.*

81626. *Pishin.*

81627. *Quetta.*

81624 to 81633—Continued.

81628 and 81629. CUCUMIS MELO L. Cucurbitaceae. Melon.

81628. *Mastung.*

81629. *Sarda.*

81630 and 81631. PISTACIA VERA L. Anacardiaceae. Pistache.

81630. [No data.]

81631. [No data.]

81632 and 81633. PRUNUS ARMENIACA L. Amygdalaceae. Apricot.

81632. [No data.]

81633. [No data.]

81634. ACONITUM YEZOENSE Nakai. Ranunculaceae. Monkshood.

From Sapporo, Hokushu, Japan. Roots collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received October 1, 1929.

No. 1193. Botanical Garden, Hokkaido Imperial University, September 24, 1929. A hardy herbaceous perennial native to northern Japan, which becomes about 5 feet high. The leaves are palmately 3-parted to 5-parted, and the large, deep purplish-blue flowers are borne in large clusters.

81635 and 81636. PITHECOLLOBIUM spp.
Mimosaceae.

From Buitenzorg, Java. Seeds presented by Dr. W. M. Docters van Leeuwen, Director, Botanic Gardens. Received December 16, 1929.

81635. PITHECOLLOBIUM CLYPEARIA (Jack) Benth.

A low tropical ornamental tree with fine-cut foliage and small whitish flowers. Native to the East Indies.

For previous introduction see No. 73254.

81636. PITHECOLLOBIUM HYMENEAEFOLIUM (Humb. and Bonpl.) Benth.

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

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

81635 and 81636—Continued.

An ornamental leguminous tree with pinnate foliage. Native to tropical America.

For previous introduction see No. 73255.

81637. VITIS VINIFERA L. Vitaceae.**European grape.**

From Weihsien, Shantung, China. Cuttings presented by J. Ashley Fitch, American Presbyterian Mission. Received December 17, 1929.

A white or green grape a little smaller than the usual cultivated variety and rarely containing seeds. It is very good for cooking and canning, and it should make a good table variety for those who like an acid grape. It ripens about the first part of August in Weihsien. The canned fruit has a noticeable deposit of cream-of-tartar crystals when taken out of the cans. This variety is known as *Dzang* or *Dzang pu tao* in Chinese.

81638. CHRYSOPHYLLUM FULVUM S. Moore. Sapotaceae.

From Mount Silinda, Masetter District, Southern Rhodesia, Africa. Seeds presented by Dr. W. L. Thompson. Received September 21, 1929.

A large tropical tree up to 100 feet high, with leathery, oblong-lanceolate leaves 3 to 4 inches long, small white axillary flowers, and brownish fruits which contain a milky latex. Native to Gazaland, Africa.

81639 to 81660.

From Hokushu, Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received October 21, 1929.

81639. ACANTHOPANAX sp. Araliaceae.

No. 1094. Obtained in a thicket along the road near Nokkenshi, September 23, 1929.

81640. ACER sp. Aceraceae. Maple.

No. 1071. Obtained along a river bank near Obihiro, September 21, 1929.

81641. ACONITUM YEZOENSE Nakai. Ranunculaceae. Monkshood.

No. 1367. From plants growing along the roadside near Nikoro, September 24, 1929.

For previous introduction and description see No. 81634.

81642. EUONYMUS ALATUS (Thunb.) Rupr. Celastraceae. Winged euonymus.

No. 1049. Obtained from a shrub in the school grounds at Obihiro, September 18, 1929. A spreading shrub, 4 or 5 feet high, with sharply toothed elliptic leaves about 2 inches long, small clusters of yellowish flowers, and small 2-seeded fruits.

For previous introduction see No. 65926.

81643. FALCATA JAPONICA Oliver. Fabaceae.

No. 1055. A leguminous vine growing along the sides of a bank near the river in the vicinity of Obihiro, September 20, 1929.

For previous introduction see No. 65278.

81639 to 81660—Continued.**81644. LESPEDEZA sp. Fabaceae.****Bushclover.**

No. 1079. Obtained from plants along a road near the table-land of Tokachi, Taisho Mura, September 22, 1929. The plants are 4 to 6 feet high and very abundant.

81645. MEBOMIA JAPONICA (Miquel) Kuntze. Fabaceae.

No. 1372. Obtained along a path in the woods near Nokkenshi, September 23, 1929.

81646. MENTHA ARVENSIS PIPERASCENS Malinv. Menthaceae. Japanese mint.

No. 1370. Obtained from the Kitami Branch Experiment Station, Nokkenshi, September 24, 1929. *Kitami akamaru*. This variety is grown most generally in the district of Kitami where peppermint is extensively grown. A cultivated variety with large leaves and yielding more oil than the ordinary mint.

For previous introduction see No. 75137.

81647 and 81648. PAEONIA spp. Ranunculaceae. Peony.

No. 1081. From wild plants at the edge of the woods near the table-land of Tokachi, Experiment Station, Taisho Mura, September 22, 1929.

81647. PAEONIA sp.

Seeds.

81648. PAEONIA sp.

Roots.

81649. PHELLODENDRON sp. Rutaceae. Corktree.

No. 1090. Obtained along the road near Nokkenshi, September 23, 1929.

81650. RHAMNUS JAPONICA Maxim. Rhamnaceae. Buckthorn.

No. 1069. Obtained along the river bank near Obihiro, September 21, 1929. A shrub, native to Japan, up to 9 feet high, with glossy pale-green leaves 1 to 2 inches long, an abundance of greenish-brown flowers in dense clusters at the ends of the short branches, and small blackish-purple berries.

For previous introduction see No. 75689.

81651. RUBUS sp. Rosaceae.

No. 1333. Obtained in the foothills near Odomari, Sakhalin Island, September 12, 1929. A species with very spiny stems and trifoliate leaves which are silvery beneath. This resembles the true raspberry.

81652 and 81653. SCHIZANDRA CHINENSIS (Turcz.) Baill. Magnoliaceae.

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

For previous introduction see No. 76188.

81652. No. 1066. From vines along the river bank near Obihiro, September 21, 1929.

81653. No. 1093. From a vine in a small park in the suburbs of Nokkenshi, September 23, 1929.

81654. SOJA MAX (L.) Piper (Glycine hispida Maxim.). Fabaceae. Soybean.

81639 to 81660—Continued.

No. 1072. From a farmer's field near Obihiro, September 21, 1929. A very early, prolific variety with greenish-yellow seeds and tawny hairs.

81655 and 81656. *TRIFOLIUM PRATENSE* L. Fabaceae. Red clover.

81655. No. 1052. Obtained along the roadside where red clover was growing very abundantly, near Obihiro, September 19, 1929.

81656. No. 1077. From plants in waste places near the table-land of Tokachi, Experiment Station, near Taisho Mura, September 22, 1929.

81657. *VACCINIUM* sp. Vacciniaceae.

No. 1341. Obtained in Odomari, Sakhalin Island, September 12, 1929. A species about 8 inches high, bearing large clusters of small, bright-red berries with white pulp; they resemble cranberries in flavor. The berries are candied, made into jam, sweet paste, or brandy, and are also made into a sauce much like cranberry sauce.

81658. *VICIA CRACCA* L. Fabaceae. Cow vetch.

No. 1056. From plants growing along the river bank near Obihiro, September 20, 1929.

81659. *VICIA* sp. Fabaceae. Vetch.

No. 1303. Obtained along a roadside near Koetol, September 10, 1929.

81660. *VITIS* sp. Vitaceae. Grape.

No. 1357. Obtained in Asahigama, September 14, 1929. A wild species with good-sized bunches of large, deep-purple fruits containing rather large seeds.

81661. *RHODODENDRON* sp. Ericaceae. Azalea.

From Japan. Seeds obtained by R. K. Beattie, Bureau of Plant Industry. Received October 28, 1929.

No. 852. A red-flowered species collected in the wild at Saka Ue Mura, Kuga Gun, Yamaguchi Ken, by S. Hayashi, September 25, 1929.

81662. *RUBUS* sp. Rosaceae. Jamberry.

From Dublin, Ireland. Plants presented by W. S. Gosset, Dublin, through H. D. Locklin, Western Washington Experiment Station, Puyallup, Wash. Received October 30, 1929.

The originator, W. S. Gosset, crossed the Logan with the Yellow Antwerp raspberry and selected this from among the seedlings. The variety has the Logan habit of growth and propagates from the tips, and the whole growth is only about one-third to one-half that of the Logan. The fruit is also smaller, and is said to be sweeter and especially fine when not cooked. After cooking it is very much like the Logan.

81663 and 81664. *MANGIFERA INDICA* L. Anacardiaceae. Mango.

From Manila, Philippine Islands. Plants presented by S. Youngberg, Director, Bureau of Agriculture, Manila. Received October 30, 1929.

81663. *Señora* on *Pahutan*.

81664. *Señora* on *Pico*.

81665 to 81669.

From Japan and China. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received in October, 1929.

81665. *LILIUM CORDIFOLIUM* Thunb. Liliaceae. Lily.

No. 1420. From the Botanic Garden, Hokushu Imperial University, Sapporo, Japan, October 2, 1929. A lily, native to Japan, 3 to 4 feet high, with pendulous leaves 12 to 18 inches long and wide and a raceme of 4 to 10 fragrant white flowers often 6 inches long. These seeds were received as *Lilium glehni*, which is said to differ very slightly from typical *L. cordifolium*.

For previous introduction see No. 75677.

81666. *LILIUM DAURICUM* Ker. Liliaceae. Candlestick lily.

No. 1413. From the Botanic Garden, Hokushu Imperial University, Sapporo, Japan, October 2, 1929. A plant about 3 feet high, with a smooth or slightly furrowed stem which is green or tinged with brown or purple. The 20 to 50 horizontal leaves are 3 to 5 inches long, and the flowers, one to five in a cluster and 3 to 5 inches across, are orange red, slightly spotted with purplish black and tinged with yellow in the center; the anthers are red.

For previous introduction see No. 78605.

81667. *SOJA MAX* (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. Soybean.

No. 1374. Obtained from Lukashik & Sons, Wuchang Road, Tientsin, China, September 27, 1929. An early yellow variety known as *Selection I. V. V. Crow-shou*, said to ripen in the vicinity of Harbin within 90 to 100 days.

81668. *TRIFOLIUM PRATENSE* L. Fabaceae. Red clover.

No. 1377. Obtained along a roadside near the seacoast in the vicinity of the Ainu village of Shiraai, southern Hokushu, Japan, September 29, 1929.

81669. (Undetermined.)

No. 1375. From plants along the roadside near Koetol, Hokushu, Japan, September 10, 1929.

81670. *UVARIA* sp. Annonaceae.

From Isabela, Luzon, Philippine Islands. Seeds presented by P. J. Wester, Bureau of Agriculture, Manila. Received October 26, 1929.

A small ornamental tree with a dark-green, dense crown, and red, edible fruits about an inch long.

81671. *ANIGOZANTHOS MANGLESII* D. Don. Amaryllidaceae.

From Perth, Western Australia. Seeds presented by Miss Helen Ogden. Received October 29, 1929.

An amaryllidaceous plant native to the Swan River country of southwestern Australia. It bears scorpioid racemes, nearly a foot long, on stout, woolly, bright-red stems. The lustrous green, tomentose flowers, 3 inches long, are tubular in bud, but split nearly to the base on opening, with the tips recurved, and bear the yellow stamens on the curve.

For previous introduction see No. 51344.

81672. TERMINALIA BROWNII Fresen.
Combretaceae.

From Giza, Egypt. Seeds presented by Thomas W. Brown, Director, Horticultural Section, Ministry of Agriculture. Received October 25, 1929.

A small tropical tree with ash-colored bark and broadly lanceolate leaves, 3 to 6 inches long, in large tufts at the tips of the branches. The inconspicuous greenish flowers are in long lax spikes and are followed by flat-winged purplish-red fruits 2 to 3 inches long. Native to Ethiopia.

81673 and 81674.

From Bogota, Colombia. Roots presented by Hernando Villa. Received October 30, 1929.

81673. OXALIS TUBEROSA Molina. Oxalidaceae.

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

For previous introduction see No. 74701.

81674. TROPAEOLUM TUBEROSUM Ruiz and Pav. Tropaeolaceae. **Nasturtium.**

Cubia. A tuberous-rooted herbaceous climber, with red and yellow flowers, native to the highlands of northern South America, where the tubers are boiled and eaten as a vegetable. The plant is said to be able to withstand a slight frost.

For previous introduction see No. 69896.

81675. CASTANOPSIS ARGYROPHYLLA King. Fagaceae.

Evergreen chinquapin.

From Dehra Dun, United Provinces, India. Seeds presented by R. N. Parker, Forest Botanist, Forest Research Institute and College. Received November 1, 1929.

A tropical evergreen tree, 50 to 60 feet high, with thinly coriaceous lanceolate leaves, 4 to 6 inches long, green above and silvery beneath. The one to three rusty tomentose nuts are in a thin-walled shell which has awl-shaped hooked spines. Native to India.

81676 to 81678. FICUS CARICA L. Moraceae. **Common fig.**

From West Worthing, England. Cuttings obtained from the Tarring Fig Garden, through Dr. S. H. Cameron, University of California, Berkeley. Received October 24, 1929.

81676. *Brown Turkey*.

81677. *Honey*.

81678. *Madagascar*.

81679. ALLIUM CEPA L. Liliaceae.

Onion.

From Valencia, Spain. Seeds purchased through Clement S. Edwards, American consul. Received October 31, 1929.

Grano.

81680. CITRUS GRANDIS (L.) Osbeck (C. decumana Muir). Rutaceae.

Grapefruit.

81680—Continued.

From Honolulu, Hawaii. Scions presented by W. T. Pope, Hawaii Agricultural Experiment Station, through W. T. Swingle, Bureau of Plant Industry. Received November 1, 1929.

Victoria shaddock.

81681 to 81685. MANGIFERA INDICA L. Anacardiaceae. **Mango.**

From Pasar Minggu, Java. Plants presented by the Tuinbouwkundig Ambtenaar. Received August 20, 1929. Numbered in October, 1929.

81681. No. 1. *Baroenboen*, grafted on *Madoe*. An everbearing mango but of poor quality.

81682. No. 2. *Kopjor*. A very fibrous bright yellow seedling mango which is used as a stock in eastern Java where they have severe droughts and the soil is alkaline and not suited to the growth of ordinary mangos.

81683. No. 4. *Golek*, grafted on *Madoe*. A large, thin, very long, golden yellow, very sweet and juicy mango with few fibers. It is a good bearer on clay soils with stiff subsoil, but not quite as good a bearer as the *Saigon*.

81684 and 81685. *Aroemanis*. In Java this is a medium-sized mango of bluish-green color. The fruit hangs on peduncles, is of fine flavor, has no fiber, is not injured by the winds, and is an excellent shipper. It is considered the best mango in Java.

81684. *Aroemanis* grafted on *Madoe*.

81685. *Aroemanis* grafted on *Mangifera odorata*.

81686. DIOSPYROS sp. Diospyraceae.

Persimmon.

From Denison, Tex. Plants purchased from the Munson Nurseries. Received November 12, 1929.

Kawakami. A hybrid of the Josephine (*Diospyros virginiana*) with the Yemon Japanese (*D. kaki*). The shape of the fruit is like that of the native species, but is much larger. It has much of the native quality and is an excellent persimmon.

81687 to 81689.

From Honolulu, Hawaii. Seeds presented by H. L. Lyon, in Charge of the Department of Botany and Forestry, Experiment Station, Hawaiian Sugar Planters' Association. Received November 5, 1929.

81687. ARECASTRUM ROMANZOFFIANUM (Cham.) Becc. (Cocos romanzoffiana Cham.). Phoeniceaceae. **Palm.**

A palm, native to Brazil, with an unarmed trunk about 30 feet high and a foot in diameter, bearing a crown of plumelike pinnate leaves 12 to 15 feet long. The fruit is a pale orange drupe about the size of a large acorn, inclosing a bony seed which has three eyes near the base.

For previous introduction see No. 44534.

81688. FLACOURTIA JANGOMAS (Lour.) Gmel. (F. cataphracta Roxb.). Flacourtiaceae. **Paniala.**

A small spiny tropical tree of compact habit, native to India. It bears small purplish subacid fruits about an inch in diameter, which may be made into an excellent jelly.

81687 to 81689—Continued.

For previous introduction see No. 48284.

81689. PINANGA KUHLII Blume. Phoenicaceae. Palm.

A stout, rapid-growing palm, native to the lower altitudes of western Java, becoming 16 to 25 feet high, with annulate stems 2 inches in diameter, reddish when young, and beautiful terminal fronds with pinnate blades 4 feet long and half as wide. This is one of the hardest species of Pinanga known.

For previous introduction see No. 51735.

81690 and 81691. MYRCIARIA FLORIBUNDA (West) Berg (*Eugenia floribunda* West). Myrtaceae.

Guava berry.

From St. Croix, Virgin Islands of the United States. Seeds presented by J. B. Thompson, Director, Agricultural Experiment Station. Received November 5, 1929.

A small slender tropical tree with ovate-lanceolate leaves 2 to 3 inches long, and axillary clusters of small white flowers followed by globose edible fruits about a quarter of an inch in diameter. The fruits make a delicious preserve with an aromatic flavor. The tree is native to the West Indies.

For previous introduction see No. 41057.

81690. A variety bearing golden-yellow fruits.

81691. A variety bearing dark-red fruits.

81692 to 81723.

From Canada. Seeds and plants collected by Knowles A. Ryerson, Bureau of Plant Industry, W. A. Alderman, Minnesota Agricultural Experiment Station, and W. R. Leslie, Superintendent of the Experiment Station, Morden, Manitoba. Received September 30, 1929. Numbered in November, 1929.

81692 to 81702. RIBES spp. Grossulariaceae.

81692. RIBES TRISTE Pall. Swamp red currant.

No. 19-A. From Mari Lake, Manitoba.

For previous introduction see No. 40487.

81693 to 81699. RIBES OXYACANTHOIDES L.

For previous introduction see No. 40471.

81693. No. 29. From Mari Lake, Manitoba.

81694. No. 59. From an island at the west end of Reed Lake, Manitoba. A variety with large, purple fruits.

81695. No. 68. From an island in Reed Lake, Manitoba. A variety bearing very large fruits about half an inch in diameter.

81696. No. 69. From an island in Reed Lake, Manitoba. A very nearly spineless variety bearing red fruits.

81692 to 81723—Continued.

81697. No. 71. From an island in Reed Lake, Manitoba. A variety with dark red fruits.

81698. No. 72. From an island west of Wyckstand Island, Reed Lake, Manitoba. A variety with purple-red, very large fruits up to half an inch in diameter.

81699. No. 75. From an island west of Wyckstand Island, Reed Lake, Manitoba. A large-fruited type.

81700 to 81702. RIBES GLANDULOSUM Grauer (*R. prostratum* L'Her.). Fetid currant.

81700. No. 41. Plants.

81701. No. 30. From Cold Lake, Manitoba.

81702. No. 70. A large variety.

81703. RUBUS TRIFLORUS Richards. Rosaceae. Dwarf red blackberry.

No. 19. From Mari Lake, Manitoba.

81704 to 81710. RUBUS IDAEUS STRIGOSUS (Michx.) Maxim. Rosaceae. Common red raspberry.

For previous introduction see No. 68823.

81704. No. 28. From Cold Lake, Manitoba. A fairly large form.

81705. No. 60. From an island at the west end of Reed Lake, Manitoba. A large-fruited form.

81706. No. 61. From an island at the west end of Reed Lake, Manitoba. A large-fruited form.

81707. No. 62. From an island west of Wyckstand Island, Reed Lake, Manitoba.

81708. No. 74. From Wyckstand Island, Reed Lake, Manitoba.

81709. No. 97. From a dry rocky slope, Little Quebec, Herb Lake. A large-fruited form of dwarf plants 12 to 14 inches high.

81710. From Herb Lake, Manitoba. A large-fruited form.

81711. VITIS VULPINA L. Vitaceae. Riverbank grape.

No. 178. Southeastern ridge of Riding Mountains, about 20 miles southwest of Dauphin, Manitoba. An early-fruited form, maturing between two and four weeks earlier than the usual season.

81712. SORBUS AUCUPARIA EDULIS Dleek. Malaceae. Edible mountain-ash.

No. 185. From Blodgen's Nursery, Dauphin, Manitoba.

81713. AMELANCHIER ALNIFOLIA Nutt. Malaceae. Saskatoon.

No. 24. From a small lake between Barrier Lake and Cold Lake, Manitoba. Bushes 6 to 8 feet high producing an abundance of large berries.

81714. CRATAEGUS COCCINEA L. Malaceae. Thicket hawthorn.

No. 152. From Red Deer River, Saskatchewan, about 5 miles west of Hudson Bay Junction.

81715. FRAGARIA YESCA L. Rosaceae. Alpine strawberry.

No. 58. From Reed Lake, Manitoba.

81692 to 81723—Continued.

81716. *FRAGARIA CANADENSIS* Michx. Rosa-
ceae. Northern wild strawberry.

No. 110. From Herb Lake, Manitoba.

81717. *LEPARGYRAEA CANADENSIS* (L.)
Greene. Elaeagnaceae.

Russet buffaloberry.

No. 10. From The Pas, Manitoba.

81718 to 81723. *PRUNUS* spp. Amygdala-
ceae.

81718 to 81720. *PRUNUS PENNSYLVANICA* L.
Pin cherry.

81718. No. 66. From Bare Rock
Falls, Manitoba.

81719. From Herb Lake, Manitoba.

81720. No. 44. From Second Cran-
berry Lake, Manitoba.

81721. *PRUNUS PUMILA* L. Sand cherry.

No. 146. From Red Deer River, Sas-
katchewan, about 5 miles from Hudson
Bay Junction.

81722 and 81723. *PRUNUS VIRGINIANA*
L. Common chokecherry.

From Blodgen's Nursery, Dauphin,
Manitoba. Practically nonastringent
types.

81722. No. 169. Chokeless No. 1.

81723. No. 170. Chokeless No. 2.

81724. *PANDANUS PARVUS* Ridley. Pan-
danaceae. Screwpine.

From Bultenzorg, Java. Seeds presented by
Dr. W. M. Docters van Leeuwen, Direc-
tor, Botanic Gardens. Received Novem-
ber 12, 1929.

A low slender screwpine, about 3 feet
high, with linear-oblong, thin leaves, and
very small spines. Native to the East
Indies.

For previous introduction see No. 72605.

81725. *ARUNDINARIA HINDSI* MUNRO.
Poaceae. Ramrod bamboo.

From Jacksonville, Fla. Plants and rhi-
zomes presented by Mrs. J. D. Holmes,
Jacksonville, through J. H. Wells, Bald-
win, Fla. Received November 15, 1929.

An erect bamboo usually reaching 6 to 12
feet, but sometimes having canes about 18
feet high. The dark olive-green stems are
about an inch thick, the branches are in
dense clusters, and the leaves, mostly erect,
are 8 to 10 inches long and less than an
inch broad. Native to China and Japan.

81726 to 81760.

From Japan. Seeds, plants, and cuttings
collected by P. H. Dorsett and W. J.
Morse, agricultural explorers, Bureau of
Plant Industry. Received in October and
November, 1929.

81726. *ACER DIABOLICUM* Blume. Acera-
ceae. Devil maple.

No. 1421. A tree up to 30 feet high
with 5-lobed leaves 4 to 8 inches across,
the broadly ovate lobes being coarsely
and remotely dentate. The racemes of
yellow flowers are followed by winged
fruits with bristly nutlets. It is native
to Japan and closely resembles *A. fran-
cetti* of central China.

For previous introduction see No.
63331.

81726 to 81760—Continued.

81727. *ASTRAGALUS SINICUS* L. Fabaceae.
Milkvetch.

No. 1542. From the Gifu Agricultural
Experiment Station, October 17, 1929.
A red-flowered variety quite common in
the farming area about Tokyo, where it
is said to be used for forage and green
manure. It is a winter crop, being
planted early in the fall.

For previous introduction see No.
80533.

81728 to 81730. *AVENA SATIVA* L. Poa-
ceae. Oats.

From the Hokushu Experiment Station,
Kotoni, October 7, 1929.

81728. No. 1532. *Shiro kataho* (white
one side of spike).

81729. No. 1533. *Victory No. 1.*

81730. No. 1534. *Belgium No. 12.*

81731. *CRATAEGUS SANGUINEA* Pall. Mala-
ceae. Hawthorn.

No. 1154. From the Sapporo Botanic
Garden, Sapporo, Hokushu, October 7,
1929. A shrub or small tree up to 20
feet high, with spreading branches and
short thorns. The broadly ovate, ser-
rate leaves are 2 to 3 inches long, and
the corymbs of rather large white flowers
with purple anthers are followed by
bright-red fruits half an inch across.
Native to eastern Siberia.

For previous introduction see No. 68414.

81732. *DIERVILLA* sp. Caprifoliaceae.

No. 1478. Growing wild in a field along
the road near Kawazoe, October 12, 1929.

81733 and 81734. *EUONYMUS* spp. Cela-
straceae.

81733. *EUONYMUS* sp.

No. 1180. From trees along the trail
up Moiwayama, near Sapporo, Hoku-
shu, August 28, 1929.

81734. *EUONYMUS* sp.

No. 1454. From Chiaki Park, Akita,
October 11, 1929. An ornamental
shrub having a spread of about 8 feet
and about 8 feet high.

81735. *CELASTRUS ARTICULATUS* Thunb.
Bittersweet.

No. 1503. From Sapporo, Hokushu, Oc-
tober 3, 1929. A leafless vine with small
clusters of fruit. The husk is parted and
of a golden-yellow color, opening out and
showing a 3-parted deep orange-red fruit.

81736. *EUONYMUS* sp.

No. 1504. From Sapporo, Hokushu, Oc-
tober 3, 1929. A beautiful shrub, densely
covered with leaves which vary in color
from green to deep red. The husk of the
single orange-red fruit is red.

81737 and 81738. *FAGOPYRUM ESCULEN-
TUM* Moench. Polygonaceae. Buckwheat.

From the Hokushu Experiment Station,
Kotoni, October 7, 1929.

81737. No. 1535. *Zairai shu* (original
variety).

81738. No. 1536. *Botan saba.*

81726 to 81760—Continued.

81739. *FRAGARIA* sp. Rosaceae. **Strawberry.**

No. 1506. Plants obtained October 7, 1929. Developed by the main Hokushu Experiment Station at the Kotoni Experiment Station. *Kotoni*. A variety considered one of the best at the station. The fruits are very large and dark red.

81740. *HORDEUM DISTICHON PALMBELLA* Harlan. Poaceae. **Two-rowed barley.**

No. 1531. From the Hokushu Experiment Station, Kotoni, October 7, 1929.

81741. *HORDEUM VULGARE PALLIDUM* Seringe. Poaceae. **Six-rowed barley.**

No. 1530. From the Hokushu Experiment Station, Kotoni, October 7, 1929. *Sapporo Rokkaku* (Sapporo six row).

81742. *LESPEDEZA STRIATA* (Thunb.) Hook. and Arn. Fabaceae.

No. 1476. Along the road near Kawazoe, October 12, 1929.

81743 and 81744. *LINUM USITATISSIMUM* L. Linaceae. **Flax.**

From the Hokushu Experiment Station, Kotoni, October 7, 1929. Varieties developed by the station.

81743. No. 1537. *Sagino*.

81744. No. 1538. *Pelno No. 1*.

81745. *MEIBOMIA JAPONICA* (Miquel) Kuntze (*Desmodium podocarpum* DC.). Fabaceae.

No. 1493. Along the trail on Mowiyama, near Sapporo, Hokushu, October 7, 1929. A perennial, shrubby at the base, with herbaceous stems 2 to 3 feet high, trifoliolate leaves with membranous leaflets 2 to 3 inches long, and axillary and terminal racemes, often a foot long, of reddish pea-shaped flowers. Native to China and Japan.

For previous introduction see No. 60448.

81746 to 81748. *ORYZA SATIVA* L. Poaceae. **Rice.**

From the Hokushu Experiment Station, Kotoni, October 7, 1929.

81746. No. 1523. *Shahonga* (cross road). A variety of rice, adapted to very dry land.

81747. No. 1524. *Kairyō mochi ichigo*. From Imperial Station No. 1. A glutinous variety used for making a paste called *Mochi*.

81748. No. 1525. *Bozu rokuge* (Bozu No. 6).

81749 to 81753. *PHASEOLUS ANGULARIS* (Willd.) W. F. Wight. Fabaceae. **Adzuki bean.**

81749. No. 1488. From a farmer's field near Kawazoe, October 12, 1929. A very prolific variety with red seeds.

81750. No. 1489. From a farmer's field near Kawazoe, October 12, 1929. A very prolific early variety with mottled or marbled red and black seeds and rather different shaped leaves than other adzuki varieties.

81751. No. 1515. From the Hokushu Experiment Station, Kotoni, October 7, 1929. *Maruba* (round leaf). Medium-sized maroon seeds.

81752. No. 1516. From the Hokushu Experiment Station, Kotoni, October 7, 1929. *Sousei dairyo* (early large grain). Medium-large maroon seeds.

81726 to 81760—Continued.

81753. No. 1517. From the Hokushu Experiment Station, Kotoni, October 7, 1929. *Sousei maruba* (early round leaf). Medium-small maroon seeds.

81754 to 81758. *PISUM SATIVUM* L. Fabaceae. **Pea.**

From the Hokushu Experiment Station, Kotoni, Hokushu, October 7, 1929.

81754. No. 1518. *Nippon aka* (Japanese red).

81755. No. 1519. *Ball pea*. Small green peas.

81756. No. 1520. *French canning*. Small yellowish-green seeds.

81757. No. 1521. *Sapporo ao tenashi*. An improved strain of the *Ao tenashi*, which is very generally grown in Hokushu.

81758. No. 1522. From the Hokushu Experiment Station No. 6728. A yellowish-green seeded strain developed by the station.

81759. *PRUNUS* sp. Amygdalaceae. **Cherry.**

No. 1182. Cuttings collected near a shrine along Mowiyama, near Sapporo, Hokushu, October 6, 1929. A tree with light gray smooth bark, beautiful red leaves, and slightly astringent, black fruits.

81760. *RAPHANUS SATIVUS* L. Brassicaceae. **Radish.**

No. 1541. From the Gifu Agricultural Experiment Station, October 17, 1929.

81761 to 81786. *SOJA MAX* (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. **Soybean.**

From Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received in October and November, 1929.

81761. No. 1425. Obtained from a factory making sugared soybeans, Sapporo, Hokushu, October 3, 1929. *Aofiro*. A variety with greenish-white seeds used in making sugared beans; also used as a vegetable. Said to be sweeter and to have a higher protein value than other varieties. The seeds were grown in Hokushu.

81762 to 81772. From the Akita Experiment Station, October 10, 1929.

81762. No. 1458. A variety native to Russia, with very small dull-black seeds and purple flowers.

81763 to 81768. *Moshito* (forage beans). Chinese varieties from Manchuria.

81763. No. 1459. Small shiny black seeds and white flowers.

81764. No. 1460. Purple flowers.

81765. No. 1461. Dull-black seeds and white flowers.

81766. No. 1462. Dull-black seeds and dull-purple flowers.

81767. No. 1463. Small glossy brown seeds and white flowers.

81768. No. 1464. Small glossy brown seeds and purple flowers.

81761 to 81786—Continued.

81769. No. 1465. Selection No. 502. A Chinese variety from Manchuria, with small glossy black seeds and purple flowers.
81770. No. 1466. Selection No. 503. A Chinese variety from Manchuria with small glossy brown seeds and purple flowers.
81771. No. 1467. Selection 504. A Chinese variety from Manchuria with small glossy brown seeds and purple flowers.
81772. No. 1468. Selection 505. A Chinese variety from Manchuria with small dull-black seeds and white flowers.
81773. No. 1484. From a farmer's field near Kawazoe, October 12, 1929. *Shirosawa* (white pod). An early yellow-seeded variety said to have been grown in this section for many years.
81774. No. 1485. From a farmer's field near Kawazoe, October 12, 1929. An early, gray, pubescent variety said to be native and grown in this section for many years. The seeds are straw yellow with a brown hilum.
81775. No. 1486. From the Akita Prefecture Horse Breeding Station, near Wada, October 12, 1929. A mixture of yellow-seeded varieties used for horse feed.
- 81776 to 81786. From the Hokushu Experiment Station, Kotoni, October 7, 1929.
81776. No. 1498. *Akazaya* (red pod). Station No. VI, 275 B. Seeds straw yellow with a dark-brown hilum.
81777. No. 1499. *Kurozaya* (black pod).
81778. No. 1500. *Chusei kura dairyu* (middle season). Tokachi Branch Station No. 3. Seeds medium sized and black.
81779. No. 1507. *Kenashi daizu*. A yellow-seeded variety developed by the station. It is resistant to the pod borer moth, one of the worst insect pests in Hokushu.
81780. No. 1508. *Tsurunoko* (young crane). Large yellow seeds with a pale hilum.
81781. No. 1509. *Oyachi ichigo* (Oyachi No. 1). A selection from Oyachi, one of the high-yielding varieties. The yellow seeds are medium sized with a deep-brown hilum.
81782. No. 1510. *Oyachi*. The Oyachi is quite generally grown in Hokushu and is a heavy yielding strain, but is very subject to attack by the pod borer moth. The yellow, medium-sized seeds have a brown hilum.
81783. No. 1511. *Gin daizu* (silver soybean). Station No. V, 35 B. Yellow, medium-sized seeds with a light-brown hilum.
81784. No. 1512. *Shiro shoyu* (small white). Yellow, medium-small seeds with a light-brown hilum.
81785. No. 1513. *Chusei hadaka* (middle season smooth). Yellow rather small seeds with a brown hilum. It is quite resistant to attack by the pod borer moth.

81761 to 81786—Continued.

81786. No. 1514. *Kuro daizu* (black soybean). Small round black seeds with green cotyledons.

81787 to 81807.

From Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received in October and November, 1929.

81787. *STEWARTIA PSEUDO-CAMELLIA* Maxim. Theaceae. **Japanese stewartia.**

No. 1414. From the Botanic Garden, Hokushu Imperial University, Sapporo, October 2, 1929. A handsome tree, native to Japan, 50 feet high, with erect branches and red bark. The thickish obovate-lanceolate leaves are bright green, and the large white flowers are borne in summer.

For previous introduction see No. 77866.

81788. *TRIFOLIUM PRATENSE* L. Fabaceae. **Red clover.**

No. 1487. From a field near Kawazoe, Akita Prefecture, October 12, 1929.

81789. *TRIFOLIUM REPENS* L. Fabaceae. **White clover.**

No. 1379. From plants growing in waste places near the seashore in the vicinity of Shiraoi, an Ainu village, southern Hokushu, September 29, 1929. A variety with large white flowers.

- 81790 to 81793. *TRITICUM AESTIVUM* L. (*T. vulgare* Vill.). Poaceae. **Common wheat.**

From the Hokushu Experiment Station, Kotoni, October 7, 1929.

81790. No. 1526. *Sapporo haru komugi ichigo*. (Sapporo spring No. 1.) A spring wheat developed by the Kotoni station.

81791. No. 1527. *Sapporo haru komugi jugo* (Sapporo spring No. 10).

81792. No. 1528. *Marching No. 8*. A fall wheat developed by the Kotoni station.

81793. No. 1529. *Akagawa Ako Ichigo* (red skin red No. 1).

A fall variety developed by the Kotoni station.

- 81794 to 81797. *VACCINIUM* spp. **Vacciniaceae.**

- 81794 and 81795. *VACCINIUM CILIATUM* Thunb.

81794. No. 1419. From the Botanic Garden, Hokushu Imperial University, Sapporo, October 2, 1929. An upright branching deciduous shrub up to 15 feet high, with pubescent branchlets and ovate ciliate-margined leaves, 2 to 4 inches long, which turn bright crimson in the autumn. The nodding bell-shaped reddish flowers are in short racemes and are followed by edible black berries a quarter of an inch in diameter. Native to Japan and Chosen.

81795. No. 1452. From Chikaki Park, Akita, October 11, 1929. A shrub about 12 feet high with racemes of blackish-purple fruit. It may be the same variety as that obtained from the Botanic Garden at Sapporo [No. 81794], but the va-

81787 to 81807—Continued.

riety from Chiaki Park bears a greater abundance of much larger fruits.

81796. *VACCINIUM JAPONICUM* Miquel.

No. 1495. From the Sapporo Botanic Garden, Hokushu, October 7, 1929.

81797. *VACCINIUM PRAESTANS* Lamb.

No. 1417. From the Botanic Garden, Hokushu Imperial University, Sapporo, October 2, 1929. A deciduous low shrub resembling the wintergreen (*Gaultheria procumbens*) in habit. The obovate leaves are 1 to 2 inches long, and the small pinkish-tinged white flowers are followed by bright-red sweet edible fruits, half an inch in diameter, with a strawberrylike fragrance. Native to northern Japan.

81798 to 81801. *VIBURNUM* spp. Caprifoliaceae.81798. *VIBURNUM* sp.

No. 1412. Near the seashore in the vicinity of Shiraol, Hokushu, September 29, 1929. A shrub about 6 feet high, with bright-red fruits.

81799. *VIBURNUM* sp.

No. 1469. From Chiaki Park, Akita, October 11, 1929. A shrub with bright-red berries.

81800. *VIBURNUM* sp.

No. 1472. Along the road near Kawazoe, October 12, 1929. A shrub with bright-red berries.

81801. *VIBURNUM* sp.

No. 1491. Along the trail to Moiwama, near Sapporo, Hokushu, October 7, 1929.

81802. *VICIA* sp. Fabaceae. Vetch.

No. 1424. A wild legume growing along the roadside near Sapporo, Hokushu, October 2, 1929.

81803. *VICIA* sp. Fabaceae. Vetch.

No. 1441. Found abundantly in waste places near Maruyama Park, Sapporo, Hokushu, October 5, 1929. Plants 2 to 3 feet high.

81804 and 81805. *VIGNA SINENSIS* (Toner) Savi. Fabaceae. Cowpea.

81804. No. 1000. From a field near Honjo, August 9, 1929. The plants are more upright and of a bushy growth with no tendency to vine; the seeds are red and used when green in the same way as black-eyed peas and the dried peas are used when cooked.

81805. No. 1490. From a farmer's field near Kawazoe, October 12, 1929. A black-seeded cowpea which is rather early and has no tendency to vine.

81806. *ZANTHOXYLUM PIPERITUM* (L.) DC. Rutaceae. Japanese prickly-ash.

No. 1481. From thorny shrubs along the road near Kawazoe, October 12, 1929. A shrub or small tree with pubescent branchlets and slender prickles in pairs. The compound leaves are made up of 11 to 19 oblong-ovate leaflets, and the small corymbs of greenish flowers are followed by red fruits which open and reveal the black seeds. The young leaves are used as a condiment. Native to northern China, Chosen, and Japan.

81787 to 81807—Continued.

81807. *ZEA MAYS* L. Poaceae. Corn.

No. 1382. From the Ainu village of Shiraol, Hokushu, September 29, 1929.

81808. *TERMINALIA BENTZOE* (L.) Pers. Combretaceae.

From Port Louis, Mauritius. Seeds presented by D. d'Emmerez de Charmoy, Director, Department of Agriculture. Received November 16, 1929.

A handsome tropical evergreen tree with lanceolate leaves, inconspicuous flowers, and narrowly 2-winged fruits. Native to the Malay Archipelago.

81809. *TERMINALIA SERICEA* Burchell. Combretaceae.

From Salisbury, Southern Rhodesia, Africa. Seeds presented by the Secretary of the Department of Agriculture. Received November 16, 1929.

A well-shaped ornamental tropical evergreen tree up to 30 feet high, with a flat crown, silvery white foliage, and yellow wood of excellent quality. Bark cloth of poor quality is made from the bark.

For previous introduction see No. 61687.

81810 to 81817.

From Russia. Seeds collected by H. L. Westover, Bureau of Plant Industry. Received November 14, 1929.

81810. *ANDROPOGON ISCHAEMUM* L. Poaceae. Grass.

No. 325. A wild grass found in the vicinity of Sukhum, Caucasus Mountains, October 11, 1929. A leafy variety, 3 to 4 feet high, producing a large quantity of coarse feed.

81811. *BRACHYPODIUM SYLVATICUM* (Huds.) Beauv. Poaceae. Grass.

No. 326. A wild grass found on partially shaded slopes at Sukhum, Caucasus Mountains, October 11, 1929.

For previous introduction see No. 78771.

81812. *CASTANEA SATIVA* Mill. Fagaceae. Spanish chestnut.

No. 323. From the Caucasus Mountains, south of Armavir, October 7, 1929.

81813. *CHAETOCHLOA ITALICA* (L.) Scribn. (*Setaria italica* Beauv.). Poaceae. Millet.

No. 327. From the Sukhum Experiment Station, Caucasus Mountains, October 12, 1929. A type with long panicles.

81814. *EUCHLAENA MEXICANA* × *ZEA MAYS*. Poaceae. Teosinte-maize hybrid.

No. 321. From the Sukhum Experiment Station, Caucasus Mountains, October 10, 1929.

81815 and 81816. *MEDICAGO SATIVA* L. Fabaceae. Alfalfa.

81815. No. 324. A wild alfalfa growing on the slopes of the Caucasus Mountains, Sukhum Experiment Station, October 11, 1929.

81816. No. 328. A wild plant from northeastern Turkestan, August 29, 1929.

81810 to 81817—Continued.

81817. TRIFOLIUM sp. Fabaceae. Clover.
No. 322. Obtained in the forest, Sukhum Experiment Station, October 10, 1929.

81818. OXYTROPIS PILOSA (L.) DC. Fabaceae.

From Russia, Union of Socialistic Soviet Republics. Seeds presented by A. Kol, Chief, Bureau of Introduction, Institute of Applied Botany and New Cultures, Leningrad. Received November 19, 1929.

No. 1335. From the Botanical Garden of Saratov University. An upright or ascending herbaceous perennial about 15 inches high, densely covered with soft spreading hairs. It has a short rootstock, pinnate leaves, and bright-yellow flowers in an ovoid raceme. Native to central Europe.

81819. CITRUS sp. Rutaceae. Cuban shaddock.

From Holguin, Cuba. Seeds presented by Thomas R. Towns. Received November 21, 1929.

A shaddock used as a stock for citrus varieties in Cuba; especially good for navel orange, but not for grapefruit or the kumquat.

For previous introduction see No. 77306.

81820 to 81822.

From Newry, Ireland. Seeds purchased from T. Smith, Daisy Hill Nursery. Received November 19, 1929.

81820. GERANIUM IBERICUM Cav. Geraniaceae. Iberian cranesbill.

A herbaceous perennial, 1 to 2 feet high, with an erect villous stem branching at the top. The opposite leaves are 5-parted to 7-parted and the violet flowers, an inch across, are borne in open panicles. Native to Spain and Portugal.

81821. IRIS GRAMINEA L. Iridaceae. Grass iris.

A dwarf beardless iris with strongly ribbed linear leaves 12 to 18 inches long, and flowers with lilac outer segments with a yellow claw and erect red-purple style branches and inner segments. The plant is valued chiefly for its freesialike scent. Native to central and southern Europe.

81822. MORAEA SPATHULATA (L. f.) Klatt (*M. spathacea* Ker). Iridaceae.

A bulbous perennial with a single linear-falcate, strongly ribbed basal leaf 2 feet high and a stout stem, 2 to 3 feet tall, bearing a cluster of bright-yellow flowers. Native to southern Africa.

81823. FIGUS RELIGIOSA L. Moraceae. Sacred bo tree.

From Kirkee, Poona, Bombay Presidency, India. Seeds presented by the Superintendent of the Ganeshkhind Botanical Gardens. Received November 19, 1929.

A large tropical tree up to 100 feet high, with the rotund-ovate coriaceous leaves suspended on slender petioles 4 inches long, and with the apex produced into a long linear-lanceolate, taillike appendage. The dark-purple axillary fruits are about half an inch in diameter. Native to India.

81824 and 81825. PRUNUS ARMENIACA L. Amygdalaceae. Apricot.

From Russia, Union of Socialistic Soviet Republics. Cuttings and scions presented by A. Kol, Chief, Bureau of Introduction, Institute of Applied Botany and New Cultures. Received November 23, 1929.

81824. Cadu Khurmai.**81825.** No. 109093. From Turkestan. Khurma.**81826 to 81830.**

From Hanover, Germany. Plants purchased from Hermann A. Hesse. Received November 23, 1929.

81826 to 81828. CHRYSANTHEMUM MAXIMUM Ramond. Asteraceae. Pyrenees chrysanthemum.

81826. *Hildegard von Grüter*. Plant tall, about 28 inches high, blooming in July; disk yellow and very small. This is especially suitable for cut flowers, on account of its prolific blooming and stiff stems.

81827. *Lockenkopf*. Plant about 2 feet high, blooming in July and August. The large dazzling white flowers, with three or four series of deep-cut ray flowers, remind one of "ostrich feather asters."

81828. *Niobe*. One of the finest sorts with unusually large pure-white heads. The ray flowers are lightly undulate.

81829. DAPHNE ALPINA L. Thymelaceae. Alpine daphne.

An erect alpine shrub 2 feet high, with narrow deciduous leaves, and fragrant white or pinkish flowers in terminal clusters. Native of Europe.

For previous introduction see No. 79200.

81830. DAPHNE CAUCASICA Pall. Thymelaceae. Caucasian daphne.

A hardy deciduous shrub, up to 4 feet high, with lanceolate leaves and fragrant white flowers in terminal heads of 3 to 20 flowers. Native to the Caucasus region.

For previous introduction see No. 79203.

81831 and 81832.

From Rumania. Seeds obtained through H. L. Westover, Bureau of Plant Industry. Received November 25, 1929.

81831. MEDICAGO SATIVA L. Fabaceae. Alfalfa.

From Transylvania.

81832. TRIFOLIUM PRATENSE L. Fabaceae. Red clover.

From Moldova.

81833. JUGLANS FORMOSANA Hayata. Juglandaceae.

From San Marino, Calif. Nuts presented by William Hertrich, Superintendent, Huntington Botanic Garden. Received November 25, 1929.

A very ornamental tree which is nearly evergreen at San Marino, Calif. The nuts resemble the butternut (*Juglans cinerea*) in size and shape. Native to Taiwan.

81834 to 81841. GOSYPIUM spp. Malvaceae. Cotton.

From Tashkent, Turkestan, Union of Socialist Soviet Republics. Seeds presented by the Turkestan Plant Breeding Station. Received November 25, 1929.

81834 to 81839. GOSYPIUM HERBACEUM L.

81834. No. 455 A. From West Pamirian.

81835. No. 2522 B. From Khoesm.

81836. No. 2929. From Khanabad, Afghanistan.

81837. No. 3101. From Khoesm.

81838. No. 5028. From Smyrna, Turkey.

81839. No. 7172. From Artysh, near Kashgar, Sinkiang, China.

81840 and 81841. GOSYPIUM HIRSUTUM L. Upland cotton.

81840. No. 0100. *Navrotsky*.

81841. No. 1838. Bred by the Turkestan Plant Breeding Station by means of hybridization.

81842 and 81843. PERSEA AMERICANA Mill. (*P. gratissima* Gaertn. f.). Lauraceae. Avocado.

From Mexico. Scions collected by C. V. Newman, President, and George B. Hodgkin, Manager, Calavo Growers of California, Los Angeles, Calif. Received November 26, 1929.

81842. No. 1. *Atlisco*.

81843. No. 2. *Atlisco*.

81844. ANNONA RETICULATA L. Annonaceae. Sugar-apple.

From Papeete, Tahiti. Seeds presented by Dr. Gerrit P. Wilder. Received November 29, 1929.

A variety of custard-apple introduced into Tahiti 50 years ago by Mr. Goupil, a Frenchman who had a coconut plantation near Papeete. It has a white skin when ripe, and a creamy white, fine-grained pulp of excellent flavor.

81845. RICINODENDRON RAUTANENII Schinz. Euphorbiaceae.

From Mount Silinda, Melssetter District, Southern Rhodesia, Africa. Seeds presented by Dr. W. L. Thompson. Received September 19, 1929.

Muzgomo. A large tree, sometimes 3 or 4 feet in diameter, with delicious edible nuts, though the shell is hard and tough. The kernel is inclosed within a second hard shell within the outer shell.

For previous introduction see No. 50029.

81846 and 81847. LACHENALIA spp. Liliaceae. Cape-cowslip.

From Cape Town, Union of South Africa. Seeds purchased from Charles Howie & Co. Received November 30, 1929.

81846. LACHENALIA ORCHIOIDES (L.) Ait.

A herbaceous perennial with a bulb about an inch in diameter from which arise usually two strap-shaped, smooth, spotted leaves. The spike of cylindrical, white, yellow, or red flowers is borne on a spotted peduncle a foot high. Native to southern Africa.

81846 and 81847—Continued.**81847. LACHENALIA PUSTULATA Jacq.**

A herbaceous perennial with a bulb about half an inch in diameter and two fleshy, sword-shaped leaves, 9 inches long, having pustules on the upper surface. The white or reddish tinged campanulate flowers are borne in a dense raceme, 2 to 3 inches long, on a peduncle 6 inches long. Native to southern Africa.

81848. DIPelta VENTRICOSA Hemsl. Caprifoliaceae.

From Keston, Kent, England. Plants purchased from G. Reuthe, Foxhill Hardy Plant Farm. Received December 5, 1929.

A deciduous shrub, 6 to 15 feet high, with downy young shoots and oval to ovate-lanceolate leaves 2 to 6 inches long. The bell-shaped flowers are about an inch long and borne on drooping pedicels at the end and in the leaf axils of short side shoots. The corolla is deep rose outside and paler within except in the throat, which is orange colored. Native to western China.

For previous introduction see No. 40178.

81849. PSIDIUM GUAJAVA L. Myrtaceae. Guava.

From Peru. Seeds presented by Dr. Wilson Popenoe, Research Department, United Fruit Co. Received November 25, 1929.

A thick-fleshed variety.

81850. POPULUS GENEROSA A. Henry. Salicaceae. Poplar.

From Winnipeg, Manitoba, Canada. Cuttings presented by Prof. F. W. Broderick, Department of Horticulture and Forestry, Agricultural College, University of Manitoba. Received November 13, 1929.

According to its originator, Dr. Augustine Henry, this hybrid poplar is intermediate in characters between its parents, *Populus angulata* and *P. trichocarpa*. It is a rapid-growing, unusually vigorous tree with coarsely serrate leaves which are pale gray beneath.

For previous introduction see No. 62111.

81851. ADONIDIA MERRILLII Beccari (*Normanbya merrillii* Beccari). Phoenicaceae. Palm.

From Manila, Philippine Islands. Seeds presented by P. J. Wester, Bureau of Agriculture, Manila. Received October 1, 1929.

Bonga de China or *bonga de Jala*. A medium-sized palm with graceful somewhat curved pinnate leaves resembling the common betel-nut palm but not so tall. The crimson fruits, less than an inch long, are borne just below the leaves. In Manila this palm is grown as an ornamental.

For previous introduction see No. 73693.

81852. FRITILLARIA CAMSCHATCENSIS (L.) Ker. Liliaceae. Black lily.

From Sapporo, Hokushu, Japan. Bulbs collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received October 1, 1929.

No. 1017. Obtained from the Sapporo Botanic Garden, September 2, 1929. A lilylike bulbous perennial with 1-flowered to 3-flowered stems 6 to 18 inches high.

81852—Continued.

The 10 to 15 leaves are lanceolate, the lower ones in whorls; and the vivid wine-purple flowers are about an inch long. Native to Siberia and Alaska.

81853. *MALUS SYLVESTRIS* Mill. (*Pyrus malus* L.). Malaceae. **Apple.**

From Melbourne, Victoria, Australia. Trees presented by J. M. Ward, Superintendent of Horticulture, Department of Agriculture. Received October 3, 1929.

Elsie Grant.

81854. *CINNAMOMUM MINDANAENSE* Elmer. Lauraceae. **Kami.**

From Lipa, Batangas, Philippine Islands. Seeds presented by S. Youngberg, Director, Bureau of Agriculture, Manila. Received October 2, 1929.

A small erect tropical tree, up to 30 feet high, with slender branches, smooth pale-green bark, and small pointed leathery leaves. The inconspicuous flowers are followed by numerous small shining steel-blue fruits. The bark is very similar to the cinnamon of commerce, and the tree has possibilities as a source of cinnamon. Native to the Philippines.

For previous introduction see No. 79546.

81855. *HEDEOMA PIPERITA* Benth. Menthaceae.

From Mexico City, Mexico. Seeds presented by A. L. Herrera, Director, Dirección de Estudios Biológicos. Received October 3, 1929.

A small annual mint with bright-green leaves less than an inch long and open spikes of white flowers, each having two red spots. Native to Mexico and a possible source of menthol.

81856. *PISTACIA VERA* L. Anacardiaceae. **Pistache.**

From Ariana, near Tunis, Tunisia, Africa. Seeds presented by F. Boeuf, Chief, Botanical Service. Received October 3, 1929.

81857 to 81864. *SACCHARUM OFFICINARUM* L. Poaceae. **Sugarcane.**

From Honolulu, Hawaii. Cuttings presented by H. L. Lyon, in charge, Department of Botany and Forestry, Experiment Station, Hawaiian Sugar Planters' Association. Received October 7, 1929.

81857. No. 28—245.

81858. No. 28—4997.

81859. No. 28—5009.

81860. No. 28—5055.

81861. No. 28—5019.

81862. No. 28—5114.

81863. No. 28—5118.

81864. Unnumbered variety (Striped Tip).

81865 to 81883. *CUCUMIS MELO* L. Cucurbitaceae. **Melon.**

From India. Seeds presented by the Associate Professor of Botany, Punjab Agricultural College, Lyallpur, through Renwick S. McNiece, American consul, Karachi. Received October 4, 1929.

81865 to 81883—Continued.

81865. *D. J. Khan No. 1.* From the Northwest Frontier Province. A variety with yellow skin which is segmented by prominent black lines.

81866. *D. J. Khan No. 2.* From the Northwest Frontier Province. A variety with yellow skin which is segmented by green lines.

81867. *Jhang No. 1.*

81868 to 81871. From Jullunder.

81868. No. 1. *Phillauni Sufaid.* A white-fleshed variety.

81869. No. 2. *Local Sufaid.* A white-fleshed variety.

81870. No. 3. *Chenai white.* A white-fleshed variety.

81871. No. 4. *Nakodri red.* A red-skinned variety.

81872 to 81883. From Lyallpur.

81872. No. 1. A round variety with a smooth yellow skin.

81873. No. 2. An ovoid variety with a rough yellow skin.

81874. No. 3. An ovoid, ribbed, yellow-skinned variety.

81875. No. 4. A round, ribbed, yellow-skinned variety.

81876. No. 5. A round, yellow, smooth-skinned variety.

81877. No. 6. A round, yellow-skinned variety segmented with green lines.

81878. No. 7. A round, yellow-skinned variety segmented with green lines.

81879. No. 8. A round variety with greenish-yellow rough skin.

81880. No. 9. A round, reddish-yellow, smooth-skinned variety.

81881. No. 10. A round variety with reddish-yellow, smooth skin.

81882. No. 11. A round, yellow-skinned variety segmented with thin lines.

81883. No. 1. *Shorkot.*

81884 to 81914.

From Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received October 1, 1929.

81884 to 81886. *DELPHINIUM* spp. Ranunculaceae. **Larkspur.**

From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929.

81884. *DELPHINIUM CONSOLIDA* L. **Field larkspur.**

No. 1145. An erect hairy annual, native to Europe, about 1½ feet high, with blue or white flowers in loose panicles.

For previous introduction see No. 53044.

81885. *DELPHINIUM ORIENTALE* J. Gay.

No. 1147. An annual larkspur which closely resembles the rocket larkspur, *Delphinium ajacis*, but differs in being a foot to a foot and a half high, with an upright, branching stem bearing numerous dense racemes of violet, pink, or white flowers. Native to southern Europe.

81884 to 81914—Continued.

81886. DELPHINIUM PYLZOWI Maxim.

No. 1146. A larkspur, native to China, with a leafy stem, 5-parted leaves, and attractive flowers with violet sepals and blackish petals.

For previous introduction see No. 62127.

81887. FRAGARIA sp. Rosaceae. Strawberry.

No. 1151. From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929. A species said to be grown in the mountain regions at high altitudes.

81888. LATHYRUS sp. Fabaceae.

No. 1155. From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929.

81889. LONICERA sp. Caprifoliaceae. Honeysuckle.

No. 1159. From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929. A yellow-fruited species.

81890. LONICERA sp. Caprifoliaceae. Honeysuckle.

No. 1161. From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929.

81891 and 81892. PICRAMMA QUASSIODES (Don) Bennett. Simaroubaceae.

A tree 15 to 25 feet high, with seeds varying from peacock green to purple. Its chief ornamental value consists in the handsome foliage which turns orange and scarlet in the autumn, and the bright-red fruits.

For previous introduction see No. 40188.

81891. No. 1163. From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929.

81892. No. 1181. Along the trail up Moiwayama, near Sapporo, Hokushu, August 28, 1929.

81893. RUBUS sp. Rosaceae.

No. 1142. Along roadsides near Sapporo, Hokushu, August 22, 1929. A species with trifoliolate leaves white underneath, and rather large, bright-red fruits.

81894. RUBUS sp. Rosaceae.

No. 1164. From a farmers' market at Sapporo, Hokushu, August 26, 1929. A dwarf species, more or less of a runner, with trifoliolate leaves white underneath, and beautiful red fruits of a good flavor.

81895 to 81897. SAMBUCUS spp. Caprifoliaceae. Elder.

From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929.

81895. SAMBUCUS LATIPINNA Nakai.

No. 1156. An ornamental shrub with compound leaves made up of three to five broadly elliptic leaflets, small white flowers in a hemispheric cluster, and attractive yellow fruits. Native to Chosen.

For previous introduction see No. 80715.

81896. SAMBUCUS SIEBOLDIANA XANTHOCARPA Nakai.

No. 1157. Fruits bright red.

81884 to 81914—Continued.

81897. SAMBUCUS sp.

No. 1158. Fruits bright pink.

81898. PANAX REPENS Maxim. Araliaceae.

No. 1184. Woods along the trail up Moiwayama, near Sapporo, Hokushu, August 28, 1929. A hardy herbaceous perennial with an elongated creeping rhizome, digitately 5-parted leaves, and globose, paired, bright-red fruits.

81899. SOJA MAX (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. Soybean.

No. 1012. From a tofu or bean curd factory in Sapporo, Hokushu, August 30, 1929. A variety considered by this factory to be the best for making tofu; from 5 to 8 bushels are used daily. The beans are grown in Tokachi Province, the leading soybean section of Hokushu.

81900 to 81906. TRIFOLIUM PRATENSE L. Fabaceae. Red clover.

81900. No. 1001. Near the railroad station at Asamushi, August 16, 1929.

81901. No. 1002. Along the roadside in the Sapporo Botanic Garden, Hokushu, August 19, 1929.

81902. No. 1003. From a field in the Maruyama Park, Sapporo, Hokushu, August 19, 1929.

81903. No. 1004. Along a roadside near Kotoni, Hokushu, August 22, 1929.

81904. No. 1005. From a field between Kotoni and Sapporo, Hokushu, August 22, 1929. This plant was much earlier than others and made an abundance of heads much smaller than other plants near by.

81905. No. 1006. Along the roadside near Shirosishi, Hokushu, August 24, 1929.

81906. No. 1008. From plants on top of Moiwayama, near Sapporo, Hokushu, at an altitude of 1,500 feet, August 28, 1929.

81907. ULMUS JAPONICA Sarg. Ulmaceae. Japanese elm.

No. 1192. From the Imperial Botanical Garden, Hokushu University, Sapporo, September 2, 1929. An elm considered as fine a lawn and park tree as the American elm, *Ulmus americana*. There are some beautiful specimens in the Botanical Garden and campus of the Hokushu Imperial University and along the streets of Sapporo.

For previous introduction see No. 76469.

81908. VACCINIUM HIRTUM SMALLII (A. Gray) Maxim. Vacciniaceae.

No. 1162. From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929. A shrub 4 to 6 feet high, with spreading branches, oblong-lanceolate leaves 1 to 3 inches long, and 1-flowered to 3-flowered clusters of red campanulate flowers followed by black berries. Native to Japan.

81909. VACCINIUM sp. Vacciniaceae.

No. 1168. Growing at an altitude of 1,600 feet on Moiwayama, near Sapporo, Hokushu, August 28, 1929. Plants 12 to 18 inches high.

81884 to 81914—Continued.

81910. *VIBURNUM* sp. Caprifoliaceae.

No. 1165. From the Sapporo Botanic Garden, Sapporo, Hokushu, August 26, 1929.

81911 to 81913. *VICIA* spp. Fabaceae.
Vetch.81911. *VICIA SATIVA* L. Common vetch.

No. 1129. Along the roadside between Kotoni and Sapporo, Hokushu, August 22, 1929. Flowers large and single, with purple standard and pink keel.

81912. *VICIA* sp.

No. 1007. Along the railroad near Shiroishi, Hokushu, August 24, 1929. A species bearing medium-sized purple flowers.

81913. *VICIA* sp.

No. 1141. Along the roadside between Kotoni and Sapporo, Hokushu, August 22, 1929. Racemes of purple flowers.

81914. (Undetermined.)

No. 1189. From the woods along the trail up Moiwaiyama, near Sapporo, Hokushu, August 28, 1929. A variety about 30 inches high, producing bright-red fruits.

81915 to 81917. *MALUS SYLVESTRIS* Mill.
(*Pyrus malus* L.). Malaceae.
Apple.

From Lalla, Tasmania, Australia. Trees purchased from Frank Walker. Received October 8, 1929.

81915. *Lalla*. A sport from a Delicious apple tree which produced a bright, full, red fruit. The flesh is, perhaps, slightly firmer than the Delicious, but in no other respect except in the brilliance of its color is there any noticeable difference.

81916. *Tasma*. This is the most popular and well known of all the apples raised in Tasmania. It is a late variety, highly colored, and a good keeper. Though not possessing a delicate flavor, it is eagerly sought for dessert purposes because of its deep brilliant red color.

81917. *Tasman's Pride*. This is essentially a dessert apple possessing a good flavor, besides being highly colored and juicy. While not being classed as a keeping variety, it may be held for a fair period in cold storage; it is very similar to the Jonathan in this respect.

81918 to 81920. *LATHYRUS* spp. Fabaceae.

From London, England. Seeds presented by T. Hay, of the Park Superintendent's Office, Hyde Park. Received October 7, 1929.

81918 and 81919. *LATHYRUS MAGELLANICUS* Lam. Lord Anson pea.

A strong-growing, woody, almost evergreen species, usually a perennial, covered with a bluish bloom. The smooth, angled, somewhat branched stem is 3 to 5 feet long, the leaflets are ovate or oblong-linear, and the dark purplish-blue flowers are on long peduncles. Native to southern South America.

81918 to 81920—Continued.

For previous introduction see No. 40875.

81918. Combes No. 868. Andean expedition. A pale-purple form.

81919. Combes No. 713. Andean expedition. A dark-purple form which received the Royal Horticultural Society's Award of Merit.

81920. *LATHYRUS NERVOSUS* Lam.

Anson pea.

A glabrous plant with stems about a foot long and leaves composed of two nearly sessile, large, oval, acute leaflets with conspicuous reticulate nerves. The solitary peduncles, 2 inches long, bear five to seven purple flowers. Native to Uruguay.

For previous introduction see No. 40876.

81921 and 81922.

From Lavras, Minas Geraes, Brazil. Seeds presented by B. H. Hunnicutt, Instituto Gammon, through Carlton Jackson, commercial attaché, Rio de Janeiro, Brazil. Received October 7, 1929.

81921. *PITHECOLLOBIUM AUAREMONTEMO* Mart. Mimosaceae.

A vine bearing seeds which are commonly used for making necklaces.

81922. *DOLICHOLUS PHASEOLOIDES* (Swartz) Kuntze (*Rhynchosia phaseoloides* DC.). Fabaceae. Rosarybean.

A slender climber with trifoliate leaves, borne upon slender wiry stems, which suggest those of the common bean (*Phaseolus*). The plant is of interest chiefly for the small bright-red seeds, with a black eye, which are strikingly similar to those of *Abrus precatorius*, the crab's eye of the West Indies.

For previous introduction see No. 80090.

81923 and 81924.

From Peradeniya, Ceylon. Seeds presented by T. H. Parsons, Curator, Royal Botanic Gardens. Received October 7, 1929.

81923. *ERYTHRINA VARIEGATA ORIENTALIS* (L.) Merr. (*E. lithosperma* Blume). Fabaceae. Dadap.

A moderate-sized spineless leguminous tree native to the East Indies. It is of very rapid growth, with trifoliate leaves and red flowers. In Ceylon the tree is used to shade crop plants, and also the foliage is lopped for use as green manure. It is being tested as a cover plant at the experiment station in Peradeniya.

For previous introduction see No. 68855.

81924. *TERMINALIA KAERNBACHII* Warb. Combretaceae. Okari nut.

A tropical evergreen tree, native to New Guinea, with very thick ash-brown branches and oblong-ovate leaves, a foot long, which are hairy beneath when young. The edible seeds, over an inch long, are inclosed in an ovoid drupe over 2 inches long.

81925. *GARCINIA DIVES* Pierre. Clusiaceae.

From Tanauan, Atimonan, Tayabas, Philippine Islands. Seeds presented by S. Youngberg, Director, Bureau of Agriculture, Manila. Received October 14, 1929.

81925—Continued.

Biluoac. A slender tree up to 30 feet high, with elliptical-lanceolate leaves, small inconspicuous flowers in the axils of the leaves, and globose fruits, about an inch in diameter, which are reported to be edible. Native to the Philippine Islands.

81926 and 81927.

From Bataan Province, Philippine Islands. Seeds presented by P. J. Wester, Bureau of Agriculture, Manila. Received October 14, 1929.

81926. *SANDORICUM KOETJAPE* (Burm. f.) Merr. Meliaceae. Santol.

An evergreen tree, native to the Philippine Islands, which becomes 80 feet high in its native country. It has trifoliolate, hairy leaves and greenish-yellow or straw-colored flowers. The chief value resides in its yellowish fruits, which are rounded or flattened, about 2 inches in diameter, with rather large seeds inclosed in translucent, acid, edible pulp of good flavor. The fruit makes a delicious preserve. This tree is not suited for cultivation in the United States except perhaps in the warmest parts of Florida.

For previous introduction see No. 79558.

81927. *UVARIA RUFA* (Dunal) Blume. Annonaceae.

Banawak. A much-branched shrub, native to Java, with a stem between 4 and 6 inches in diameter and alternate, elliptic-oblong, acute, or obtuse leaves 2 to 5 inches long. The purplish-red, solitary flowers are about an inch wide. The oblong kidney-shaped red fruits, about 1½ inches long, are in bunches of 18 to 20, with whitish, scanty flesh which is juicy, aromatic, and subacid, without a trace of sugar, and containing many seeds.

For previous introduction see No. 44091.

81928. *CAPPARIS MICRACANTHA* DC. Capparidaceae.

From Manila, Philippine Islands. Seeds presented by P. J. Wester, Bureau of Agriculture, Manila. Received October 14, 1929.

Dauag. A large straggly spiny evergreen shrub or small tree with smooth bark and short stiff spines. The coriaceous shining, broad-lanceolate leaves are 4 to 8 inches long, and the white flowers, two to four in a series in vertical lines on the branches, are 1½ inches across. The smooth, subglobose fruits, 2 to 3 inches long, are a beautiful apple red and have a good flavor.

For previous introduction see No. 51191.

81929 to 81931.

From Georgetown, Demerara, British Guiana. Seeds presented by A. A. Abraham, Assistant Superintendent, Botanic Gardens. Received October 15, 1929.

81929. *MARTINEZIA CORALLINA* Mart. Phoenicaceae. Palm.

A spiny palm with pinnate leaves about 9 feet long, and clusters, 2 to 3 feet long, of small white flowers followed by bright-red fruits nearly an inch in diameter. The pale-brown seeds are used for necklaces. Native to the island of Martinique, French West Indies.

81929 to 81931—Continued.

For previous introduction see No. 81592.

81930. *THRINAX PARVIFLORA* Swartz. Phoenicaceae. Jamaica thatch palm.

An unarmed fan palm with a ringed trunk up to 20 feet high, circular leaves 1 to 2 feet across and divided on the margin into bifid segments, and inconspicuous flowers and fruits. Native to Jamaica.

81931. (Undetermined.)

81932 to 81934. *ALLIUM CEPA* L. Liliaceae. Onion.

From Santa Cruz, Teneriffe, Canary Islands. Seeds purchased from C. Garcia Dorta. Received October 19, 1929.

81932. *Crystal Wax*.

81933. *Red Bermuda*.

81934. *Yellow Bermuda*.

81935. *GARCINIA MANGOSTANA* L. Clusiaceae. Mangosteen.

From Peradeniya, Ceylon. Seeds presented by T. W. Parsons, Curator, Royal Botanic Gardens. Received October 21, 1929.

A delicious fruit about the size of a mandarin orange, round and slightly flattened at each end, with a thick, smooth, rich red-purple rind, which, when cut, exposes the white segments lying loose in the cups. The inside cup surface of the rind is a most delicate pink. The separate segments are whitish and covered with a delicate network of fibers. The texture of the pulp resembles that of the plum, and the flavor is indescribably delicious.

81936. *STYLOSANTHES ERECTA* Beauv. Fabaceae.

From Boma, Belgian Congo, Africa. Seeds presented by the Secrétaire Général, Congo Belge, Gouvernement Général. Received October 17, 1929.

A copiously branched ascending shrub about 4 feet high, with broad, rather stiff, compound leaves, and terminal oblong heads of inconspicuous flowers. It is native to tropical Africa and is said to be of value as a fodder plant.

For previous introduction see No. 56798.

81937. *MANGIFERA INDICA* L. Anacardiaceae. Mango.

From Honolulu, Hawaii. Bud wood presented by W. T. Pope, Horticulturist of the Agricultural Experiment Station, through Eugene May, Bureau of Plant Industry. Received October 17, 1929.

Victoria.

81938 to 81940. *PANDANUS* spp. Pandanaceae. Screwpine.

From Buitenzorg, Java. Seeds presented by Dr. W. M. Docters van Leeuwen, Director, Botanic Gardens. Received November 12, 1929.

81938. *PANDANUS AFFINIS* Kurz.

A low shrubby evergreen closely related to *Pandanus foetidus*, with limp, swordlike leaves, 4 to 6 feet long, which are spiny along the midribs and margins. Native to Ceylon.

81938 to 81940—Continued.

For previous introduction see No. 72602.

81939. *PANDANUS ATROCARPUS* Griffith.

A tree, 40 to 60 feet high and about 6 inches in diameter, with linear acuminate dark-green leaves, 20 feet long and 4 inches wide, which are used for making coverings for carts, screens, hats, etc. The fragrant white spikes are 4 to 6 inches long, and the fruits an inch long.

For previous introduction see No. 51727.

81940. *PANDANUS VANDERMEESCHII* Balf. f.

A screwpine, native to the island of Mauritius, up to 20 feet high, having lateral branches 8 feet long and stiff, sub-erect leaves 2 feet long.

For previous introduction see No. 72608.

81941. *HYLOCEREUS* sp. Cactaceae.
Nightblooming cereus.

From Honolulu, Hawaii. Cuttings obtained through T. C. Zchakke, by W. A. Lloyd, Extension Service, United States Department of Agriculture. Received October 22, 1929.

From the Pan-Pacific Club in Honolulu.

One of the epiphytic, moisture-loving cacti, with a 3-angled stem. By means of aerial roots it clings to trees and walls and climbs to great heights in tropical America, where this genus is native.

81942 to 81945.

From Burringbar, New South Wales, Australia. Seeds presented by B. Harrison. Received October 18, 1929.

81942. *DANTHONIA SEMIANNULARIS* (Labbill.) R. Br. Poaceae. Grass.

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

For previous introduction see No. 74412.

81943. *EHRHARTA CALYCINA* J. E. Smith. Poaceae. Perennial veldt grass.

A heavy-yielding drought-resistant and nutritious grass which grows to a height of over 4 feet and seeds profusely. It promises to outrival even the famous Rhodes grass, and should prove valuable to stock owners, especially in dry districts.

For previous introduction see No. 77436.

81944. *LOLIUM LOLIACEUM* (Bory and Chaub.) Hand.-Mazz. (*L. subulatum* Vis.). Poaceae. Grass.

An annual bunch grass with much-branched slender prostrate or ascending stems 2 to 8 inches long. Native to dry sandy places along the coast of southeastern Europe.

81945. *LUPINUS HIRSUTUS* L. Fabaceae. European blue lupine.

An ovate-leaved lupine used for forage and green manure.

For previous introduction see No. 75914.

81946. *ALLAGOPTERA CAUDESCENS* (Mart.) Kuntze (*Diplothemium caudescens* Mart.). Phoenicaceae. Palm.

From Georgetown, Demerara, British Guiana. Seeds presented by A. A. Abraham, Assistant Superintendent, Botanic Gardens. Received December 23, 1929.

A stout palm up to 25 feet high, with a trunk a foot in diameter and a crown of pinnate leaves 9 to 12 feet long, made up of narrowly lanceolate segments which are green above and silvery beneath. Native to Brazil.

81947 to 81973.

From Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received in October, 1929.

81947. *ACTAEA SPICATA* L. Ranunculaceae. Black baneberry.

No. 1030. Seeds from plants growing in the forest reservation near Nopporo, Hokushu, September 5, 1929. *Ruiyoushoma*. A herbaceous perennial 1 or 2 feet high, with racemes of deep-blue fruits in autumn.

For previous introduction see No. 72405.

81948. *CLINTONIA UDENSIS* Trautv. and Mey. Convallariaceae.

No. 1029. Seeds from plants growing in the forest reservation near Nopporo, Hokushu, September 5, 1929. *Tsubame o moto*. A low-growing liliaceous perennial from damp places in southeastern Siberia. The erect broadly oblong leaves, 6 inches long, are green, paler beneath. The greenish-yellow flowers, borne on a scape, are not showy, and the fruits are deep blue.

81949. *DISPORUM SESSILE* (Thunb.) Don. Convallariaceae. Fairybells.

No. 1195. Seeds from plants growing in the forest reservation near Nopporo, Hokushu, September 5, 1929. A small herbaceous perennial closely allied to the *Uvularias*, of the eastern United States. The narrowly ovate leaves are sessile, and the flowers, usually solitary, are white. Native to Japan.

81950. *PANAX REPENS* Maxim. Araliaceae.

No. 1194. Seeds from plants growing in the forest reservation near Nopporo, Hokushu, September 5, 1929.

For previous introduction and description see No. 81898.

81951. *POLYGONATUM JAPONICUM* C. Morr. and Decaisne. Convallariaceae. Solomonseal.

No. 1200. Seeds from plants growing in the forest reservation near Nopporo, Hokushu, September 5, 1929. *Ohoamadoro*. A herbaceous perennial, 1 or 2 feet high, closely related to the Solomonseal of the eastern United States. The oval leaves are 2 to 3 inches long, and the campanulate, greenish-white flowers are about one-fourth of an inch across. Native to Japan.

81952. *RIBES* sp. Grossulariaceae.

No. 1349. Seeds from plants growing in a field near Odomari, Sakhalin Island, September 12, 1929. Fruits red.

81947 to 81973—Continued.

81953. RUBUS sp. Rosaceae.

No. 1325. Seeds from plants growing along the seashore near Koetoi, Hokushu, September 10, 1929. A low-growing variety producing rather sour, deep-red fruits.

81954. SKIMMIA JAPONICA Thunb. Rutaceae. Japanese skimmia.

No. 1199. Seeds from plants growing in the forest reservation near Nopporo, Hokushu, September 5, 1929. *Miyama shi kimi*.

For previous introduction and description see No. 81898.

81955. SOJA MAX (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. Soybean.

No. 1026. Seeds from plants growing in a field near Maruyama Park, near Sapporo, Hokushu, September 4, 1929. A very early variety with greenish-yellow seeds.

81956 to 81963. TRIFOLIUM spp. Fabaceae. Clover.

Seeds.

81956 to 81961. TRIFOLIUM PRATENSE L. Red clover.

81956. No. 1021. From the Kotoni Experiment Station, Hokushu, September 3, 1929. Originally obtained by the Kotoni station from Orneshoken, Finland. Apparently a very prolific and early strain.

81957. No. 1022. From the Kotoni Experiment Station, Hokushu, September 3, 1929. Originally obtained by the Kotoni station from Kanhoyski, Finland. Apparently a very early strain.

81958. No. 1023. From the roadside near Nopporo, Hokushu, September 5, 1929.

81959. No. 1024. From the Kotoni Experiment Station, Hokushu, September 3, 1929. Originally obtained from Sweden as Senklover by the Kotoni station.

81960. No. 1025. From the Kotoni Experiment Station, Hokushu, September 3, 1929. Originally obtained from Ekerö, Finland, by the Kotoni station.

81961. No. 1318. From the roadside near Koetoi, Hokushu. A variety found abundantly along roadsides and in open fields.

81962. TRIFOLIUM sp.

No. 1028. From the Kotoni Experiment Station, Hokushu, September 3, 1929.

81963. TRIFOLIUM sp.

No. 1329. From moist fields near Odomari, Sakhalin Island, September 12, 1929.

81964. VICIA sp. Fabaceae. Vetch.

No. 1360. Near Maruyama Park, near Sapporo, Hokushu, September 15, 1929. A light purple-flowered species growing in abundance and making a very heavy growth.

81965. VICIA sp. Fabaceae. Vetch.

No. 1121. Seeds from plants growing in Maruyama Park, near Sapporo, Hokushu, August 19, 1929.

81947 to 81973—Continued.

81966 to 81970. LILIUM spp. Liliaceae. Lily.

81966. LILIUM CORDIFOLIUM Thunb. (*L. glehni* F. Schmidt).

No. 1083. Seeds from plants along the road near Taisho Mura, Hokushu, September 22, 1929. A lily, native to Japan, 3 to 4 feet high, with pendulous leaves 12 to 18 inches long and wide, and a raceme of 4 to 10 fragrant white flowers often 6 inches long.

For previous introduction see No. 75677.

81967. LILIUM sp.

No. 1084. Near Obihiro, Hokushu, September 22, 1929.

81968. LILIUM sp.

No. 1085. Near Obihiro, Hokushu, September 22, 1929.

81969. LILIUM sp.

No. 1086. Near Obihiro, Hokushu, September 22, 1929.

81970. LILIUM sp.

No. 1344. Seeds from plants in a field near Odomari, Sakhalin Island, September 12, 1929.

81971. SALIX sp. Salicaceae. Willow.

No. 1073. Cuttings from a tree in a yard on the main road near Obihiro, Hokushu, September 21, 1929. This tree measured 76 inches in circumference 3 feet from the ground, and it was between 60 and 70 feet high.

81972. SYRINGA sp. Oleaceae. Lilac.

No. 1080. Scions from wild bushes along the roadside near the Plain of Tokachi, at an experiment station near Taisho Mura, Hokushu, September 22, 1929.

81973. SYRINGA sp. Oleaceae. Lilac.

No. 1095. Cuttings from a tree 6 to 8 inches in diameter and about 30 feet high, growing in a small park in a suburb of Nokenkshi, Hokushu, September 23, 1929.

81974 to 81981. KNIPHOFIA spp. Liliaceae. Torchlily.

From Haarlem, Netherlands. Roots purchased from C. G. van Tubergen. Received December 2, 1929.

81974 to 81977. KNIPHOFIA GRACILIS Harv.

81974. *Jaune Supreme*. A deep-yellow-flowered variety.

81975. *Orange Beauty*. A variety bearing bright-orange flowers on slender spikes.

81976. *Orange Princess*. An orange-flowered variety.

81977. *Sovereign*. A variety bearing canary-yellow flowers.

81978 to 81981. KNIPHOFIA HYBRIDA Hort.

81978. *Ophir*. A variety bearing orange-brown flowers on short spikes.

81979. *Royal Standard*. A variety bearing an abundance of rich golden-yellow flowers. The upper half of the spikes are a rich scarlet.

81974 to 81981—Continued.

81980. *R. Wilson*. A variety with broad spikes.

81981. *Solfatare*. A robust grower bearing broad spikes of yellow flowers shaded with bronze.

81982. SECURIDACA LONGIPEDUNCULATA Fres. Polygalaceae.

Rhodesia violet tree.

From Salisbury, Southern Rhodesia, Africa. Seeds presented by the Secretary of the Department of Agriculture. Received November 16, 1929.

A much-branched spreading shrub, sometimes 10 feet high, native to Upper Guinea, Ethiopia, and the Mozambique district. The coriaceous leaves are revolute margined when dry, and the flowers, in terminal spreading racemes, are rose, shades of purple or violet, or variegated with white.

For previous introduction see No. 48477.

81983 and 81984. LACHENALIA spp. Liliaceae. Cape-cowslip.

From Stellenbosch, Union of South Africa. Seeds purchased from K. C. Stanford. Received December 2, 1929.

81983. LACHENALIA ORCHIOIDES (L.) Ait.

For previous introduction and description see No. 81846.

81984. LACHENALIA PUSTULATA Jacq.

For previous introduction and description see No. 81847.

81985 to 81987. ROSCOEA spp. Zinzi-beraceae.

From Liverpool, England. Plants purchased from Bees (Ltd.). Received December 5, 1929.

81985 and 81986. ROSCOEA CAUTLEOIDES Gagn.

81985. A perennial herbaceous gingerlike plant, 9 to 12 inches high, native to China. It has thick, fleshy roots, broad leaves, and showy primrose-yellow flowers borne on many-flowered scapes.

For previous introduction see No. 61793.

81986. *August Beauty*. A very vigorous variety which flowers two months later, but is otherwise like the type.

81987. ROSCOEA HUMEANA Balf. and Smith.

A stout gingerlike perennial about 8 inches high, with cigar-shaped rhizomes, four to six broadly lanceolate sessile leaves 4 to 8 inches long, and four to eight large violet-purple flowers in a terminal spike. It is native to Yunnan, southwestern China, and has flowered freely at Kew, England, where it is considered the finest of the genus and where likewise it appears entirely hardy.

For previous introduction see No. 80205.

81988. SOLANUM BULLATUM Vell. Solanaceae.

From Vicosa, Brazil. Seeds presented by P. H. Roifs, Consultor Technico de Agricultura do Estado de Minas Geraes,

81988—Continued.

Escola Superior de Agricultura e Veterinaria. Received December 3, 1929.

According to chemical analysis, the foliage of this plant contains as much nitrogen as alfalfa or possibly a little less. It very frequently grows into a small tree about the size and shape of a small plum tree, but most frequently it is browsed and then continues to sprout up from the crown. It is very drought resistant and is eaten by cattle and mules.

For previous introduction see No. 54676.

81989 to 81994.

From Ottawa, Canada. Cuttings presented by W. T. Macoun, Dominion Horticulturist, Central Experimental Farm, Department of Agriculture. Received March 7, 1929. Numbered in November, 1929.

81989. ROSA RUBROSA Preston. Rosaceae. Rose.

Variety *Carmenetta*. A strong-growing hybrid between *R. rubrifolia* and *R. rugosa*, with single, pale-pink flowers which are intermediate in size between those of the parents.

81990 to 81994. SYRINGA PRESTONIAE McKelvey. Oleaceae. Lilac.

A race of hybrids between *Syringa reflexa* and *S. villosa*, with large freely produced panicles varying in color from very pale pink to pinkish lilac.

81990. Variety *Bianca*.

81991. Variety *Jacquenetta*.

81992. Variety *Jessica*.

81993. Variety *Julia*.

81994. Variety *Portia*.

81995 and 81996.

From Manila, Philippine Islands. Seeds presented by P. J. Wester, Bureau of Agriculture. Received November 26, 1929.

81995. CITRUS MIARAY Wester. Rutaceae.

A handsome ornamental tree suggested as a stock for cultivated citrus fruits. It has slender drooping willow branches, dark-green leaves, and fruits resembling the lime in appearance and flavor. Native to the Philippine Islands.

For previous introduction see No. 77599.

81996. (Undetermined.)

Tantelak. An asclepiadaceous vine from the lower Sulu Archipelago, with large tender pods eaten as a vegetable.

81997. STIZOLOBIUM SEMPERVIRENS (Hemsl.) Kuntze (*Mucuna sempervirens* Kuntze). Fabaceae. Velvetbean.

From Paris, France. Plants purchased from Vilmorin-Andrieux & Co. Received December 17, 1929.

An evergreen climbing shrub with the main trunk sometimes a foot in diameter. It is native to Hupeh, central China. The trifoliate leathery leaves are 3 to 5 inches long, and the dark chocolate-colored flowers are borne in racemes on the old wood. The woody pods are up to a foot in length.

81998. IPOMOEA MACALUSOI Mattel.
Convolvulaceae. **Morning-glory.**

From Italian Somaliland, Africa. Seeds collected by Dr. Mario Calvino, San Remo, Italy. Received December 7, 1929.

A high-climbing tropical woody vine with branches 6 feet or more long. The rounded oval leaves are 5 inches wide, and the handsome bell-shaped light-orange flowers, 2 inches or more long, have red-margined petals and are in nearly sessile cymes. Native to Italian Somaliland.

For previous introduction see No. 80046.

81999. ERICA SCOPARIA L. Ericaceae.

From Newry, Ireland. Seeds purchased from T. Smith, Daisy Hill Nursery. Received December 13, 1929.

An evergreen shrub, native to southern Europe, 10 feet high, with upright branches, small lustrous dark-green linear leaves in whorls of three or four, and long cylindrical spikes of greenish-white flowers.

For previous introduction see No. 79018.

82000 to 82007. GOSSYPIUM spp. Malvaceae. **Cotton.**

From the Galápagos Islands and the Marquesas Islands. Seeds obtained by A. K. Fisher, Bureau of Biological Survey. Received December 4, 1929.

82000. GOSSYPIUM sp.

A. From Albemarle Island, Galápagos Islands, August 22, 1929. Bolls small, three lock or four lock. Lint whitish to buff, tightly adherent to the seed. Seeds completely covered with long, buff-colored fuzz.

82001. GOSSYPIUM sp.

B. From Albemarle Island, Galápagos Islands, August 21, 1929. Leaves entire (?), pubescent above, densely tomentose beneath. Bolls larger and less pointed than in A [No. 82000], three lock. Lint whitish to pale buff, rather coarse, tightly adherent to the seed. Seeds larger than in A, completely covered with fuzz of a pale buff color.

82002. GOSSYPIUM sp.

C. From Vahuka, Marquesas Islands, September, 1929. Bolls very small, abruptly short pointed, three lock or four lock. Lint light reddish brown (some of it lighter in color), rather silky, strongly adherent to the seeds. Seeds small, lacking a well-differentiated fuzz, but partly covered with rather long, strongly adherent, whitish and tawny hairs.

82003 to 82007. From Vahuka, Marquesas Islands, September, 1929. The contents of this package were mixed. The bolls ranged from not larger than in C [No. 82002] to about twice as large. The lint was nearly white for the most part, but some of it had a tawny tinge. After removal of the lint, five different types of seeds were distinguished.

82008. GOSSYPIUM sp.

D-1. Seeds large, coffee colored, longitudinally striate, naked except for a minute tuft of tawny fuzz at the base.

82004. GOSSYPIUM sp.

D-2. Seeds as in D-1 [No. 82003], except that they are smaller and a lighter brown.

82000 to 82007—Continued.**82005. GOSSYPIUM sp.**

D-3. Seeds as in D-1 [No. 82003], but a lighter brown and having a larger basal tuft of fuzz.

82006. GOSSYPIUM sp.

D-4. Seeds black, with a small tuft of whitish fuzz at the apex and a small tuft of tawny fuzz at the base.

82007. GOSSYPIUM sp.

D-5. Seeds brown, about half of the surface covered with tawny fuzz, lint less strongly adherent than in C [No. 82002].

82008. QUERCUS PHILLYRAEOIDES A. Gray. Fagaceae. **Oak.**

From Northwood, Middlesex, England. Plants presented by R. C. B. Gardner. Received December 6, 1929.

An evergreen shrub or small tree up to 30 feet high, with broad-elliptic, crenate-serrate leaves 1 to 3 inches long. Native to China and Japan.

82009 to 82020.

From Newry, Ireland. Bulbs purchased from T. Smith. Received December 7, 1929.

82009 to 82018. ALLIUM spp. Liliaceae. **Onion.****82009. ALLIUM ATROPURPUREUM** Waldst. and Kit.

An upright, rather tall onion, sometimes over 3 feet high, with two to four narrow-linear leaves much shorter than the stem. The small, dark-purple flowers, sometimes rosy purple with a darker middle stripe, are in dense hemispherical or spherical clusters. Native to meadows in southeastern Europe.

82010. ALLIUM BEESIANUM W. W. Smith.

An ornamental onion, native to western China, 9 to 18 inches high, with pendulous blue flowers.

For previous introduction see No. 78975.

82011. ALLIUM FLAVUM L.

A wild onion with an upright or ascending stem a foot or less high, narrowly linear leaves about as long as the stem, and small yellow, bell-shaped flowers in a rather dense cluster. Native to dry rocky places, especially in chalky soil, in south-central Europe.

82012. ALLIUM KANSUENSE Regel.

An ornamental blue-flowered onion native to northwestern China.

For previous introduction see No. 76205.

82013. ALLIUM KARATAVIENSE Regel.

An onion, native to Turkestan, with very ornamental broad leaves of a striking blue-green color and dense umbels of dull-pink flowers.

For previous introduction see No. 78983.

82014. ALLIUM MOLY L. **Lily leek.**

A bulbous plant with broad, glaucous leaves and scapes 10 to 15 inches high.

82009 to 82020—Continued.

The bright-yellow flowers are in compact heads. Native to southern Europe.

For previous introduction see No. 69903.

82015. ALLIUM MULTIBULBOSUM Jacq.

An onion from central Europe, closely related to *Allium nigrum*, but differing in the numerous spherical bulblets, its broader and shorter leaves, and in certain floral characters. The flowers, entirely white or with a reddish central stripe in the petals, are in a dense globular cluster. Native to mountain meadows in central Europe.

82016. ALLIUM NARCISSIFLORUM Vill.

An onion, native to Italy, about 9 inches high, with rose-colored flowers in nodding heads.

For previous introduction see No. 76207.

82017. ALLIUM OSTROWSKIANUM Regel.

A particularly striking species native to Turkestan. The deep-rose flowers are produced freely in many-flowered umbels on scapes 12 inches high.

For previous introduction see No. 78987.

82018. ALLIUM TRIQUETRUM L.

A bulbous plant with a 3-angled stem, common on the coast of Algeria. In its usual surroundings this plant is a rather dwarfed weed of dry texture, but it has been found that when it is transplanted to good garden soil with plenty of fresh water it produces, during the winter, large plants with white, tender, and succulent underground parts. If the green leaves are removed the rest of the stem forms a delicate vegetable with no odor of garlic.

For previous introduction see No. 46560.

82019. LEUCOJUM AUTUMNALE L. Amaryllidaceae. Snowflake.

An autumn-blooming bulbous plant native to the Mediterranean countries and best suited for growing in sandy soil in the southern half of the United States. The threadlike leaves usually appear after the flowers, which are white, tinged with red, and are borne on a slender scape 3 to 9 inches long.

For previous introduction see No. 64440.

82020. STERNBERGIA MACRANTHA J. Gay. Amaryllidaceae.

A herbaceous perennial with a globose bulb about an inch in diameter and a neck 4 to 6 inches long. The strap-shaped leaves are fully developed in June, and the bright-yellow funnel-shaped flowers are produced in autumn. Native to southwestern Asia.

82021 to 82027.

From Twyford, Berks, England. Plants purchased from John Waterer Son & Crisp. Received December 13, 1929.

82021. CLEMATIS HERACLEAFOLIA DC. Ranunculaceae. Tube clematis.

Ultramarine. A variety of compact habit with an abundance of violet-blue flowers.

82021 to 82027—Continued.

82022 and 82023. CHRYSANTHEMUM MAXIMUM Ramond. Asteraceae. Pyrenees chrysanthemum.

82022. *Excelsior*. The very large white flowers are borne on long stiff stems. This is one of the best varieties for cutting.

82023. *Iris Carlile*. A variety bearing pure white flowers with very distinct lacinated petals. It is an especially good variety for cutting.

82024 to 82026. HELENIUM AUTUMNALE L. Asteraceae. Sneezeweed.

82024. *Gartensonne*. Brilliant golden-yellow flowers with distinct black centers, borne between August and October.

82025. *Madame Canivet*. Clear lemon-yellow flowers with distinct black centers, borne during July and August.

82026. *Wyndley*. A variety bearing very large reddish bronze and yellow flowers during July and August.

82027. HELENIUM BIGELOVII A. Gray. Asteraceae. Bigelow sneezeweed.

Variety *aurantiacum*. A variety bearing large orange-yellow flowers between June and September.

82028 to 82031. PISTACIA VERA L. Anacardiaceae. Pistache.

From Damghan, Persia. Cuttings collected by W. E. Whitehouse, Bureau of Plant Industry. Received in December 1929.

Scions from some of the best pistache trees in Damghan, Persia. Nuts grown here are said to have a high oil content and to be partly dehiscid (split) when grown under conditions which allow normal growth and development of the nuts.

82028. D-57. November 8, 1929. Collected in the same orchard with D-68 and D-82 [Nos. 82029 and 82030].

82029. D-68. November 8, 1929.

82030. D-82. November 8, 1929. Collected from first tree in group of three.

82031. D-82-B. November 8, 1929. A small scion sample collected from a water sprout on this tree, the outside in a group of three.

82032 to 82034.

From Anam, French Indo-China. Seeds presented by M. Pollaue. Received December 10, 1929.

82032. CASTANOPSIS sp. Fagaceae. Evergreen chinquapin.

82033. DIOSPYROS sp. Diospyraceae. Persimmon.

82034. QUERCUS sp. Fagaceae. Oak.

82035 to 82046.

From Leningrad, Russia, Union of Socialist Soviet Republics. Seeds presented by A. Kol, Chief, Bureau of Introduction, Institute of Applied Botany and New Cultures. Received December 17, 1929.

82035 to 82037. AMYGDALUS PERSICA L. (Prunus persica) Stokes. Amygdalaceae. Peach.

82035. From Tashkent. A large-fruited variety.

82035 to 82046—Continued.

82036. No. 109320. From Tashkent. A large-fruited white variety.

82037. No. 109323. From Isfara, Fergana Province. *Ak Tchilgi*. An early white variety.

82038 to 82046. PRUNUS ARMENIACA L. Amygdalaceae. Apricot.

82038. From the valley of the Kaindi Su River.

82039. No. 109674. From Namangan, Mashad, Uzbekistan. *Khashak*.

82040. No. 109677. From Mashad, Uzbekistan. *Isfara Kandak*.

82041. No. 109690. From Tura Kurgan, Uzbekistan. *Ak Uriuk*.

82042. No. 109701. Near Namangan, Mashad, Uzbekistan. *Psta Kandak*.

82043. No. 109707. From Mashad, Uzbekistan. *Supkhani*.

82044. No. 109708. From Mashad, Uzbekistan. *Supkhani III*.

82045. No. 109711. From Namangan, Mashad, Uzbekistan. *Psta Kandak*.

82046. No. 109735. From Namangan, Mashad, Uzbekistan. *Supkhani I*.

82047. PHYLLOSTACHYS sp. Poaceae. Bamboo.

From Avery Island, La. Plants presented by E. A. McIlhenny. Received December 20, 1929.

This bamboo, according to a statement of November 19, 1929, from Mr. McIlhenny, is one of two introductions sent to him from Chico, Calif., by the Department of Agriculture, April 3, 1914, under Nos. 23242 and 23243. It is believed by Mr. McIlhenny to be the smooth-sheathed *P. mitis* and has reached a height of 28 feet in poor soil at Avery Island.

82048 to 82051. HELENIUM AUTUMNALE L. Asteraceae. Sneezeweed.

From Dedemsvaart, Netherlands. Roots purchased from B. Ruys, Royal Moerheim Nurseries. Received December 10, 1929.

82048. *Garten Sonne*. A variety bearing, between the last of August and the last of October, brilliant golden-yellow flowers with velvet-brown centers.

82049. *Autumn Sunshine*. A tall, hardy hybrid bearing pure yellow flowers.

82050. *Grandicephalum Julisonne*. A variety 3 feet high, bearing an abundance of dark-yellow flowers with dark-brown centers.

82051. Variety *pumilum magnificum*. A variety 2½ feet high, bearing a great number of large, yellow flowers from June until autumn.

82052. HEMEROCALLIS sp. Liliaceae. Daylily.

From Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received October 12, 1929.

No. 1350. From a field near Odomari, Sakhalin Island, September 12, 1929.

82053 to 82058.

From Twyford, Berks, England. Plants purchased from John Waterer Son & Crisp. Received December 13, 1929.

82053 to 82055. CHRYSANTHEMUM MAXIMUM Ramond. Asteraceae. Pyrenees chrysanthemum.

82053. *Marion Collier*. A splendid new fringed variety bearing semidouble flowers.

82054. *Mrs. F. Daniels*. A medium-late variety bearing snowy white flowers.

82055. *Phyllis Smith*. A variety bearing an abundance of beautiful lustrous white flowers on long wiry stems. The petals of the flowers are deeply cut, giving the flowers a ruffled appearance.

82056 to 82058. HELENIUM AUTUMNALE L. Asteraceae. Sneezeweed.

82056. Variety *pumilum magnificum*. A variety bearing an abundance of yellow flowers between June and September.

82057. *Crimson Beauty*. A greatly improved variety of *cupreum*.

82058. *Julisonne*. Bronzy yellow flowers borne during July and August.

82059 and 82060. AMYGDALUS COMMUNIS L. (Prunus amygdalus Stokes) Amygdalaceae. Almond.

From Marrakech, Morocco. Seeds presented by H. Brayard, Directeur de la Station d'Essais. Received December 20, 1929.

82059. No. 6054.

82060. No. 6063.

82061 to 82084.

From Chosen and Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

82061. ACANTHOPANAX SESSILIFLORUM (Rupr. and Maxim.) Seem. Araliaceae.

No. 1552. From the Imperial Botanical Garden, Keijo, October 26, 1929. From shrubs 6 feet or more high, with dense, almost round clusters of black or dark-purple fruits.

For previous introduction see No. 76203.

82062. ACER sp. Aceraceae. Maple.

No. 1567. From the Imperial Botanical Garden, Keijo, October 27, 1929. A small cut-leaved maple with bright-red foliage.

82063 and 82064. BERBERIS spp. Berberidaceae. Barberry.

82063. BERBERIS sp.

No. 1705. From the Forest Experiment Station, Government General of Chosen, Keijo, November 6, 1929. A deciduous plant 10 feet high, with rather long racemes of fruits.

82064. BERBERIS sp.

No. 1709. Collected along the road between Rensen and Senkoku, No-

32061 to 32084—Continued.

November 6, 1929. The young shoots color up beautifully, and the rather small red fruits are in good-sized clusters.

32065 and 32066. BETULA JAPONICA Sieb.
Betulaceae. **Birch.**

A hardy ornamental tree, native to Japan, up to 75 feet high, with broadly oval leaves. It is closely related to *Betula pendula*.

For previous introduction see No. 75671.

32065. No. 1518. From Suigen, November 2, 1929.

32066. No. 1576. From Suigen, November 2, 1929. From a small tree at the Agricultural Experimental Forest Station.

32067. CASSIA sp. Caesalpinaceae.

No. 1612. A wild legume growing along the road in a rather mountainous country near Kuroya, October 18, 1929.

32068. CLEMATIS sp. Ranunculaceae.

No. 1566. From the Imperial Botanical Garden, Keijo, October 27, 1929. A wild clematis having a feathery appearance during this season.

32069. CLERODENDRUM FOETIDUM Bunge.
Verbenaceae. **Rose glorybower.**

No. 1543. Between the villages of Kagi-mori and Chichilu, October 18, 1929. Greenish to purple fruits.

32070 and 32071. CORNUS COREANA Wanger.
Cornaceae. **Dogwood.**

A tree, native to Chosen, up to 60 feet high, with reddish-brown branchlets, dark-green elliptic leaves 3 to 6 inches long, loose clusters of small white flowers, and black fruits.

For previous introduction see No. 78401.

32070. No. 1550. From the Imperial Garden, Keijo, October 26, 1929.

32071. No. 1633. From the Chosen Imperial Grounds, Keijo, October 26, 1929.

32072. CRATAEGUS SANGUINEA Pall.
Malaceae. **Hawthorn.**

No. 1584. From the arboretum of the forestry branch of the Agricultural Experiment Station, Suigen, November 2, 1929. A native variety with small red fruits. The bright-red globose fruits, one-third inch in diameter, are in rather dense corymbs.

For previous introduction see No. 68414.

32073. CRATAEGUS sp. Malaceae.
Hawthorn.

No. 1574. A native red hawthorn obtained from the forestry branch of the Agricultural Experiment Station, Suigen, November 2, 1929. A plant about 12 feet high, with fairly large fruits.

32074. CROTALARIA sp. Fabaceae.

No. 1228. Along the path near Zenkoku, November 7, 1929. Wild plants 10 to 18 inches high.

32075. LESPEDeza STIPULACEA Maxim.
Fabaceae.

32061 to 32084—Continued.

No. 1734. Koka, island of Kokato, November 10, 1929. From a dry exposed situation on the dry, mountain back of the village society.

32076. DIOSCOREA sp. Dioscoreaceae.
Yam.

No. 1570. From a wild species along the road between Chotan and Koryoho, October 30, 1929.

32077. DIOSPYROS LOTUS L. Diospyra-
ceae. **Dateplum.**

No. 1731. Sanseiri, island of Kokato, November 10, 1929. From a tree 55 inches in circumference and 30 or more feet high; it is said to be 100 years or more old.

32078. FAGARA AILANTHOIDES (Sieb. and
Zucc.) Engl. Rutaceae.

No. 1554. From the Chosen Hotel grounds, Keijo, October 26, 1929. The leaves are compound, and, judging from the quantity of clusters of small shiny black seeds, this tree flowers freely. The seeds have a pleasant odor when crushed and are quite oily.

**32079 and 32080. FAGOPYRUM ESCULEN-
TUM** Moench. Polygonaceae. **Buckwheat.**

32079. No. 1260. Near Kokato, November 11, 1929. *Soba*.

32080. No. 1700. From the Chosen farmers' market, Keijo, October 31, 1929. *Mei Miru*.

32081. FALCATA JAPONICA Oliver. Faba-
ceae.

No. 1202. From the woods of the Chosen Government Forest Reservation near Keijo, November 6, 1929. Vines 3 to 4 feet long. They may be of value for green manure.

For previous introduction see No. 65278.

32082. FORSYTHIA sp. Oleaceae.

No. 1628. From the Chosen Imperial Grounds, Keijo, October 26, 1929. A species said to be native to Chosen.

32083. GLEDITSIA HORRIDA (Thunb.) Mak-
ino. Caesalpinaceae. **Japanese honeylocust.**

No. 1622. From the Imperial Botanical Garden, Keijo, October 26, 1929. A large tree, up to 100 feet high, with compressed thorns and purplish branchlets. The pinnately compound leaves are made up of 16 to 20 oblong leaflets 1 to 2 inches long, and the slender racemes of inconspicuous flowers are followed by flat, twisted pods about a foot long. Native to Japan and China.

32084. GOSSYPIUM NANKING Meyen. Mal-
vaceae. **Cotton.**

No. 1710. From the village of Rensen, November 7, 1929. Said to be a native variety. The plants in the small area along the road outside of Rensen, between there and Zenkoku, were not more than about 2 feet high.

32085 to 32101.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

32085 to 32101—Continued.

32085 to 32087. *HORDEUM VULGARE PAL-LIDUM* Seringe. Poaceae.

Six-rowed barley.

From the Chosen farmers' market, Keijo, October 31, 1929.

32085. No. 1833. *Kannori*. Said to be a spring variety.

32086. No. 1834. *Kannori*. Said to be a spring variety.

32087. No. 1835. *Pori*. Said to be a fall variety.

32088. *INDIGOFERA* sp. Fabaceae. Indigo.

No. 1900. Near Kuroya, October 18, 1929. A species of possible value as a green-manure crop.

32089. *JUNIPERUS RIGIDA* Sieb. and Zucc. Pinaceae. Needle juniper.

No. 1583. From the arboretum of the forestry branch of the Agricultural Experiment Station, Suigen, November 2, 1929. A graceful pyramidal shrub or small tree up to 30 feet high, native to eastern Asia. The branches are ascending and the branchlets pendulous; the spreading, linear-subulate, sharp-pointed leaves are an inch long; and the globose fruits, a quarter of an inch in diameter, are brownish black, covered with bloom.

For previous introduction see No. 78402.

32090 to 32101. *LESPEDEZA* spp. Fabaceae.

32090. *LESPEDEZA* sp.

No. 1227. Along the road near Zuroku, November 7, 1929. Plants, 12 to 18 inches high, growing on rather poor lava soil.

32091. *LESPEDEZA* sp.

No. 1581. From the forestry branch of the Agricultural Experiment Station, Suigen, November 2, 1929.

32092. *LESPEDEZA* sp.

No. 1631. From the Chosen Imperial Grounds, Keijo, October 26, 1929. A species known as Chosen tree clover which grows between 10 and 16 feet high. Some of the shrubs measured 1 to 2 inches in diameter.

32093. *LESPEDEZA* sp.

No. 1632. From the Chosen Imperial Grounds, Keijo, October 26, 1929. A fairly erect, branching variety 12 to 20 inches high, bearing an abundance of small, nearly black seeds.

32094. *LESPEDEZA* sp.

No. 1634. From the Chosen Imperial Grounds, Keijo, October 26, 1929. A species quite frequent in the woods and waste places in the Chosen Imperial Grounds. It resembles very closely sweetclover in growth and habit, and ranges from 4 to 8 feet high. The black, somewhat elongated seeds are very numerous. Most of the stems are still green, and the buds show prominently and are very abundant about the base of the stem. This species looks promising as a forage plant and no doubt would give a good second growth if cut at blooming time.

32085 to 32101—Continued.

32095. *LESPEDEZA* sp.

No. 1732. From Koka, island of Kokato, November 10, 1929. A small-leaved, rather tall species.

32096. *LESPEDEZA* sp.

No. 1733. From Koka, island of Kokato, November 10, 1929. A species growing on the dry clayey mountain back of the village.

32097. *LESPEDEZA* sp.

No. 1832. From plants, 16 to 24 inches high, growing on very poor soil along a dry bank near Koryoŋo, October 30, 1929.

32098. *LESPEDEZA* sp.

No. 1879. From plants, 20 to 30 inches high, in dry sandy foothills near Keijo, November 1, 1929.

32099. *LESPEDEZA* sp.

No. 1893. From much-branched plants, 18 to 28 inches high, growing on a steep dry rocky hillside near Kami Jinsen, November 4, 1929.

32100. *LESPEDEZA* sp.

No. 1897. From plants, 4 to 5 feet high, in the woods of the Chosen Government Forest Reservation near Keijo, November 6, 1929. The seeds are borne in clusters on the top branches, and the leaves are broader, longer, and larger than most other *lespedezas* so far gathered.

32101. *LESPEDEZA* sp.

No. 1898. From plants in the woods of the Chosen Government Forest Reservation near Keijo, November 5, 1929. The plants are 2 to 3 feet high, with small narrow leaves, and the seeds extend all along the branches and main stems.

32102 to 32107.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

32102 and 32103. *AESCHYNOMENE INDICA* L. Fabaceae.

A bushy leguminous annual with pale-green, feathery leaves, native to the Tropics.

For previous introduction see No. 64616.

32102. No. 1241. Plants, 30 to 40 inches high, growing in the woods of the Chosen Government Forest Reservation near Keijo, November 8, 1929. They may be of value as green manure.

32103. No. 1880. Plants, 24 to 30 inches high, growing under moist conditions in a ditch in the foothills near Keijo, November 1, 1929.

32104. *MEIBOMIA JAPONICA* (Miquel) Kuntze. Fabaceae.

No. 1899. Plants, 30 to 40 inches high, from the woods of the Chosen Government Forest Reservation near Keijo, November 6, 1929. They may have value as green manure.

32105. *OPHIOPOGON* sp. Liliaceae. Snakebeard.

82102 to 82107—Continued.

No. 1556. From a hillside in the Imperial Botanical Garden, Keijo, October 26, 1929.

82106 and 82107. *PAEONIA SUFRUTICOSA* Andrews (*P. moutan* Sims). Ranunculaceae. Tree peony.

82106. No. 1568. From the Imperial Botanical Garden, Keijo, October 27, 1929.

82107. No. 1627. From the Chosen Imperial Grounds, Keijo, October 26, 1929.

82108 to 82152. *PHASEOLUS* spp. Fabaceae.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

82108 to 82133. *PHASEOLUS ANGULARIS* (Willd.) W. F. Wight. Adzuki bean.

82108. No. 1233. From the Chosen Fair exhibit, Keijo, November 8, 1929; originally grown in the Kōkaidō Prefecture. Seeds medium sized and maroon colored; used in making confections.

82109. No. 1234. From the Chosen Fair exhibit, Keijo, November 8, 1929; originally grown in the Helan Nando Prefecture. Seeds medium sized and maroon colored; used in making confections.

82110. No. 1240. From plants growing in the woods of the Chosen Government Forest Reservation near Keijo, November 8, 1929. Vines, 5 to 8 feet long, with pods, about 2½ inches long, which shatter very readily. The seeds are very small and black.

82111. No. 1261. Near Kokato, November 11, 1929. *Chokutsu*. A mixed sample of maroon seeds varying in size; used in making confections.

82112. No. 1265. Near Kokato, November 11, 1929. *Chanpatsu*. Seeds medium small and marbled gray and black; used in grinding for cattle feed.

82113 to 82129. From the Chosen farmers' market, Keijo, October 28, 1929.

82113. No. 1678. *Kuzu*. A marbled black and gray variety used, after grinding, for cattle feed.

82114. No. 1679. *Choutsu*. A red variety used in making confections.

82115. No. 1680. *Kuruinpatsu*. A marbled red and black variety used, after grinding, for cattle feed.

82116. No. 1681. *Purugunpatsu*. A red variety used in making confections.

82117. No. 1682. *Chindare*. A marbled gray and black variety used, after grinding, for cattle feed.

82118. No. 1684. *Harugonpachi*. A reddish-brown variety used in making confections.

82119. No. 1685. *Paragonpachi* No. 2. A medium-small, brownish-red variety used for confections.

82108 to 82152—Continued.

82120. No. 1686. *Chaputon*. A mixed sample used, after grinding, for cattle feed.

82121. No. 1687. *Patsu tauri*. A red variety used in making confections.

82122. No. 1688. *Patsu*. A black and red variety used, after grinding, for cattle feed.

82123. No. 1689. *Kunipatsu*. A marbled gray and black variety used, after grinding, for cattle feed.

82124. No. 1690. *Yoganunipatsu*. A black and white variety used, after grinding, for cattle feed.

82125. No. 1691. *Pitanpa*. A marbled black and red variety used, after grinding, for cattle feed, and also for confections.

82126. No. 1692. *Kandopai*. A marbled red and black variety used, after grinding, for cattle feed.

82127. No. 1694. *Kenpipa*. A marbled gray and black variety used, after grinding, for cattle feed.

82128. No. 1695. *Chiyokutsu*. A red variety used in making confections.

82129. No. 1696. *Patsu taure*. A red variety used in making confections.

82130. No. 1831. From plants 18 to 24 inches high, along a dry hillside near Koryoho, October 30, 1929. A prolific variety of good growth.

82131 to 82133. From the Chosen farmers' market, Keijo, October, 1929.

82131. No. 1868. *Kunpun*. A mixed sample used, after grinding, for cattle feed.

82132. No. 1869. *Pachi yappa*. A mixed sample used, after grinding, in making cattle feed.

82133. No. 1870. *Yongonnipa*. A black and white variety used, after grinding, for cattle feed.

82134 to 82145. *PHASEOLUS AUREUS* Roxb. Mung bean.

82134. No. 1235. From the Chosen Fair exhibit, Keijo, November 8, 1929; originally grown in the Helan Hokudo Prefecture. A medium-sized, glossy, olive-green variety used for sprouts.

82135. No. 1236. From the Chosen Fair exhibit, Keijo, November 8, 1929; originally grown in the Kōkaidō Prefecture. A medium-sized, glossy, light-green variety used for sprouts.

82136. No. 1262. Near Kokato, November 11, 1929. *Rokuto*. A very small olive-green variety used for sprouts.

82137. No. 1263. Near Kokato, November 11, 1929. *Rokuto*. A medium-sized, olive-green variety used for sprouts.

82138 to 82145. From the Chosen farmers' market, Keijo, October 28, 1929.

82138. No. 1683. *Rokuto*. A variety used for sprouts and bean vermicelli.

82108 to 82152—Continued.

82139. No. 1801. *Rokuto*. A green variety used for sprouts and bean vermicelli.
82140. No. 1802. *Rokuto*. A green variety used for sprouts and bean vermicelli.
82141. No. 1803. *Rokuto*. A green variety used for sprouts and bean vermicelli.
82142. No. 1804. *Rotsu*. A green variety used for sprouts and bean vermicelli.
82143. No. 1805. *Tonoran notsuku*. A golden variety used for sprouts.
82144. No. 1806. *Rokutsu*. A variety used for sprouts and bean vermicelli.
82145. No. 1838. *Rokuto*. A variety used for sprouts and bean vermicelli.
- 82146 to 82150. PHASEOLUS CALCARATUS Roxb. Fabaceae. Rice bean.
82146. No. 1210. From plants in the Chosen Government Forest Reservation near Keijo, November 6, 1929. Vines 4 to 6 feet long.
82147. No. 1239. From plants in the woods of the Chosen Government Forest Reservation near Keijo, November 8, 1929. Vines with pods $2\frac{1}{2}$ to $3\frac{1}{2}$ inches long, and small, brown seeds which shatter easily.
82148. No. 1699. From the Chosen farmers' market, Keijo, October 31, 1929. *Ipatsu*. A mixed sample of maroon and greenish-yellow seeds used for cattle feed, and also for cattle medicine for fever.
82149. No. 1839. From the Chosen farmers' market, Keijo, October 31, 1929. *Ipa*. A maroon variety said to be used for cattle feed and especially as a medicine for fever.
82150. No. 1878. From the Chosen farmers' market, Keijo, October 31, 1929. *Ipa*. A greenish-yellow variety used for cattle feed.
- 82151 and 82152. PHASEOLUS VULGARIS L. Common bean.
- From the Chosen Fair exhibit, Keijo, November 8, 1929.
82151. No. 1231. Originally grown in the Kankyo Hokudo Prefecture. The medium-small white seeds are like the small pea bean and are used for food.
82152. No. 1232. Originally grown in the Zendra Nando Prefecture. A variety with medium-sized, kidney-shaped seeds which are mottled red and white; used for food.
82153. PHYLLOSTACHYS PUBERULA (Miquel) Munro. Poaceae. Bamboo.
- From Avery Island, La. Plants presented by E. A. McIlhenny. Received December 21, 1929.
- A large bamboo which grows to a height of 50 feet or more, with culm diameters up to 4 inches. The leaves are rather small, 2 to 5 inches long, and two or three on a branchlet. The new culms appear in the spring slightly later than those of *Phyllostachys edulis* and earlier than those of

82153—Continued.

- P. bambusoides*. The fresh culm sheath is plain mauve colored, puberulent above, glaucous all over, and very handsome with its small terminal wavy pseudophyll of bright green. These plants are from some which were previously sent to Mr. McIlhenny under No. 24761.
- 82154 to 82160.
- From Chosen. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received in December, 1929.
- 82154 and 82155. PISUM SATIVUM L. Fabaceae. Pea.
- Seeds obtained at the Chosen Fair exhibit, Keijo, November 8, 1929.
82154. No. 1237. Originally grown in the Zendra Nando Prefecture. A medium-sized, nearly round, smooth variety used for food.
82155. No. 1238. Originally grown in the Kankyo Hokudo Prefecture. A medium-sized, light-green, wrinkled variety used for food.
82156. PRUNUS ARMENIACA L. Amygdalaceae. Apricot.
- No. 1765. Near the village of Ryugakeku, northwest of Heijo, November 17, 1929. Scions cut from a small tree growing in the wild. The branches are a beautiful bright red.
82157. PUERRARIA THUNBERGIANA (Sieb. and Zucc.) Benth. Fabaceae. Kudzu.
- No. 1204. Scods from plants along the road between Chotan and Koryoho, October 30, 1929. A kudzu which may prove to be a harder form than the one grown in the United States.
- For previous introduction see No. 47579.
- 82158 and 82159. PYRUS FAURIEI C. Schneid. Malaceae. Pear.
- For previous introduction see No. 47155.
82158. No. 1578. From Suigen, November 2, 1929. Seeds from a very thorny tree about 8 feet high, with fruits up to the size of a Concord grape, and russet with numerous brown spots. It is said to be a native variety.
82159. No. 1593. From the Forest Experiment Station of the Government General of Chosen, Keijo, November 6, 1929. Seeds from a thorny tree 10 to 12 feet high.
82160. RHAMNUS sp. Rhamnaceae. Buckthorn.
- No. 1572. Seeds from small spiny shrubs in a river bottom near the Keijo seed and nursery farm outside the East Gate, Keijo, November 1, 1929.
- 82161 to 82175. RHODODENDRON spp. Ericaceae. Azalea.
- From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.
- 82161 and 82162. RHODODENDRON DAURICUM MUCRONULATUM (Turcz.) Maxim. Korean rhododendron.

82161 to 82175—Continued.

An upright shrub, up to 6 feet high, with rose-colored flowers which appear very early in the spring. The leaves turn a beautiful scarlet in the autumn.

For previous introduction see No. 71126.

82161. No. 1589. From the Forestry Experiment Station of the Government General of Chosen, Keijo, November 6, 1929.

82162. No. 1739. From the mountain side adjacent to the boat landing at Kokan, island of Kokato, November 11, 1929.

82163 and 82164. RHODODENDRON SCHLIP-PENBACHII Maxim. **Royal azalea.**

A beautiful deciduous shrub 15 feet high, with large clear pink flowers appearing before the leaves in the spring. The broadly obovate leaves, 2 to 4 inches long, are dark green above, paler beneath, and change to yellow, orange, and crimson in the autumn. Native to Manchuria, Chosen, and Japan.

For previous introduction see No. 78411.

82163. No. 1558. An azalea collected in the wild in the Botanical Garden, Keijo, October 27, 1929.

82164. No. 1590. An azalea from the Forestry Experiment Station of the Government General of Chosen, Keijo, November 6, 1929. It was found growing wild on the decomposed granite hillside.

82165. RHODODENDRON sp.

No. 1557. From small-leaved plants growing wild in the Imperial Botanical Garden, Keijo, October 27, 1929.

82166. RHODODENDRON sp.

No. 1587. A rhododendron, native to Chosen, from the Forestry Experiment Station, Keijo, November 6, 1929.

82167. RHODODENDRON sp.

No. 1588. From the Forestry Experiment Station of the Government General of Chosen, Keijo, November 6, 1929. An azalea, native to Chosen, about 2 feet high, found in decomposed granite soil in exposed dry situations.

82168. RHODODENDRON sp.

No. 1591. From plants in the wild at the Forestry Experiment Station of the Government General of Chosen, Keijo. A native variety with small leaves and lavender-pink flowers.

82169. RHODODENDRON sp.

No. 1620. From the Imperial Botanic Garden, Keijo, October 26, 1929.

82170. RHODODENDRON sp.

No. 1624. From the Chosen Imperial Grounds, Keijo, October 26, 1929.

82171. RHODODENDRON sp.

No. 1625. From the Chosen Imperial Grounds, Keijo, October 26, 1929.

82172. RHODODENDRON sp.

No. 1637. From the woods of the Chosen Imperial Grounds, Keijo, October 27, 1929. Said to be native to Chosen.

82176 to 82175—Continued.

82173. RHODODENDRON sp.

No. 1638. From the woods of the Chosen Imperial Grounds, Keijo, October 27, 1929. Said to be native to Chosen.

82174. RHODODENDRON sp.

No. 1722. From Funai or Koka village, island of Kokato, November 10, 1929.

82175. RHODODENDRON sp.

No. 1723. From the village of Kan-chori, island of Kokato, November 10, 1929.

82176 to 82181.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

82176 and 82177. RIBES FASCICULATUM Sieb. and Zucc. Grossulariaceae. **Winterberry currant.**

82176. No. 1580. From the arboretum of the forestry branch of the Agricultural Experiment Station, Suigen, November 2, 1929. An interesting native variety.

82177. No. 1714. Collected on the mountain side south of the village of Rensen, November 7, 1929.

82178 to 82180. ROSA spp. Rosaceae. **Rose.**

82178. ROSA sp.

No. 1582. From the arboretum of the forestry branch of the Agricultural Experiment Station, Suigen, November 2, 1929, and said to have originally come from Siberia. A small plant with very small shiny green leaves and black hips.

82179. ROSA sp.

No. 1594. A native Chosen species from the Forestry Experiment Station of the Government General of Chosen, Keijo, November 6, 1929.

82180. ROSA sp.

No. 1598. From the Forestry Experiment Station of the Government General of Chosen, Keijo, November 6, 1929. A strong-growing species with rather long, pointed, bright-red hips.

82181. RUBUS sp. Rosaceae. **Raspberry.**

No. 1592. From the Forestry Experiment Station of the Government General of Chosen, Keijo, November 11, 1929. Trailing vines with rather small leaves.

82182 to 82330. SOJA MAX (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. **Soybean.**

From Chosen and Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

82182. No. 1203. Obtained in the woods of the Chosen Government Forest Reservation near Keijo, November 6, 1929. Slender vines, 4 to 7 feet long, with small pods which shatter easily.

82183. No. 1206. Obtained near the East Gate, Keijo, November 6, 1929. *Chonta.* A variety bearing medium-sized, yellowish-green to green seeds with a brown hilum. The seeds are used as boiled beans with other foods.

82182 to 82330—Continued.

- 82184.** No. 1207. Obtained near the East Gate, Keijo, November 5, 1929. *Pepute*. A variety bearing medium-sized yellow seeds having a pale-brown to dark-brown hilum, used as boiled beans and for cattle feed.
- 82185.** No. 1208. Obtained near the East Gate, Keijo, November 6, 1929. *Kirugumutu*. A variety having medium-sized yellow seeds with a light-brown hilum, used for making bean curd, miso, and soy sauce.
- 82186 to 82195.** Obtained in the village of Rensen, November 7, 1929.
- 82186.** No. 1211. From the grain market. *Rensen*. Medium-sized yellow seeds with a light-brown hilum; used for making bean curd, miso, and soy sauce.
- 82187.** No. 1212. Obtained in the grain market. *Rensen*. Medium-sized yellow seeds mottled with brown, and having a light-brown hilum; used as boiled beans with other foods and also boiled for cattle feed.
- 82188.** No. 1213. From the grain market. *Rensen*. Medium-sized, yellow seeds with the hilum varying from pale brown to dark brown; used in making bean curd, miso, and soy sauce.
- 82189.** No. 1214. From the grain market. *Rensen*. Medium-sized, yellow seeds with the hilum varying from pale brown to a russet brown; used in making bean curd, miso, and soy sauce.
- 82190.** No. 1215. A large black-seeded variety, used as boiled beans and in making confections.
- 82191.** No. 1216. Medium-sized yellow seeds with a light-brown hilum; used as boiled beans and also boiled for cattle feed.
- 82192.** No. 1217. A slender variety 3 to 4 feet high, with medium-sized seeds having a brown hilum; used as boiled beans and also boiled for cattle feed.
- 82193.** No. 1218. Medium-sized yellow seeds with a brown hilum; used as boiled beans and also boiled for cattle feed.
- 82194.** No. 1219. Medium-small greenish-yellow seeds with a brown hilum; used as boiled beans.
- 82195.** No. 1220. Medium-sized yellow seeds with a brown hilum; used as boiled beans.
- 82196 to 82201.** Near Zenkoku, November 7, 1929.
- 82196.** No. 1221. *Pura Page*. A variety with very large pods, $2\frac{1}{2}$ to $3\frac{1}{2}$ inches long, containing large, much flattened, black and greenish-yellow seeds; used as a green vegetable and as boiled beans.
- 82197.** No. 1222. *Kirugunte*. A variety 30 to 36 inches high, bearing very small yellow seeds with a russet-brown hilum; used for sprouts and as boiled beans with other foods.
- 82198.** No. 1223. *Komijankon*. Large black seeds with the seed coat more or less split; used as boiled beans.

82182 to 82330—Continued.

- 82199.** No. 1224. *Pankon*. Large yellow seeds with seed coat split to a very considerable extent; used as boiled beans and also boiled for cattle feed.
- 82200.** No. 1225. *Pura Page*. Medium-large yellowish-brown seeds; used as a green vegetable and also as boiled beans.
- 82201.** No. 1226. Medium-sized greenish-yellow seeds used as boiled beans and also boiled for cattle feed.
- 82202.** No. 1229. From the Chosen Fair soybean exhibit, Keijo, November 8, 1929; originally grown in Kogendo Prefecture. Large, nearly round, yellow seeds with a light-brown hilum; used in making bean curd, soy sauce, and miso.
- 82203.** No. 1230. From the Chosen Fair soybean exhibit, Keijo, November 8, 1929; originally grown in Keikido Prefecture. Seeds medium sized, nearly round, with a pale hilum; used in making bean curd, miso, and soy sauce.
- 82204 to 82216.** Obtained near Kokato, November 11, 1929.
- 82204.** No. 1242. *Hinkurukon*. Medium-sized, slightly greenish-yellow seeds with a slate-brown hilum.
- 82205.** No. 1243. *Komjankon*. Medium-sized, black, slightly flattened seeds used as boiled beans and in making confections.
- 82206.** No. 1244. *Hinkon*. Medium to medium-large seeds usually with a pale hilum, but sometimes having a brown hilum; used as boiled beans and also boiled for cattle feed.
- 82207.** No. 1245. *Kirumukon*. A variety with very small, nearly round, yellow seeds with a light-brown hilum; used for sprouts.
- 82208.** No. 1246. A variety with very small, nearly round, black seeds which are of the Kingston type [No. 17255], but the hilum is yellow. The variety may be of value for sprouts.
- 82209.** No. 1247. *Hinkon*. Glossy yellow seeds with a brown hilum; used as boiled beans and also boiled for cattle feed.
- 82210.** No. 1248. Seeds medium sized and marbled with brown and yellow, and having a brown hilum; the seed coat is glossy.
- 82211.** No. 1249. *Komujankon*. Seeds-mixed blacks, very similar to those of the old Wilson variety [No. 19183].
- 82212.** No. 1250. Mixed sample of medium to medium-large seeds varying from greenish yellow to yellow; used as boiled beans for cattle feed.
- 82213.** No. 1251. *Nuyupuru*. Medium-sized greenish-yellow seeds with a bluish tinge; used as boiled beans.
- 82214.** No. 1252. *Funkon*. Mixed sample of yellow seeds varying in size and shape and in the color of the hilum. The seeds are more or less mottled with brown.
- 82215.** No. 1253. *Komjonkon*. Mixture of black seeds varying in size and shape, but all more or less flattened.

82182 to 82330—Continued.

82216. No. 1254. *Keryian*. Medium-sized yellow seeds varying somewhat in the color of the hilum.
82217. No. 1255. From Sosha, near Jinsen, November 11, 1929. *Komujankon*. Medium-sized black, somewhat flattened seeds; used as boiled beans.
82218. No. 1256. From Sosha, near Jinsen, November 11, 1929. *Funkon*. Medium-sized yellow seeds, more or less mottled with brown, with a light-brown to brown hilum; used as boiled beans and also boiled for cattle feed.
82219. No. 1257. Near Kokato, November 11, 1929. *Burukon*. Medium-large brown seeds used as boiled beans.
82220. No. 1258. Near Kokato, November 11, 1929. A selection from Burukon. Seeds medium large and buff colored.
82221. No. 1266. Near Kokato, November 11, 1929. *Chontepunkorp*. A mixed variety, undoubtedly heterozygous, with yellow to yellowish green, medium to medium-large seeds; used as boiled beans and also boiled for cattle feed.
82222. No. 1604. From the Asami bean curd or tofu shop, Kagemori, October 18, 1929. Medium-sized yellow seeds grown in this region and used in the manufacture of bean curd.
82223. No. 1605. From the Asami bean curd or tofu shop, Kagemori, October 18, 1929. *Sapporo*. A medium-sized, round, yellow-seeded variety grown in this region and used in the manufacture of bean curd.
- 82224 to 82228. From a farmer's field near Kagemori, October 18, 1929.
82224. No. 1606. A medium-sized yellow-seeded variety, said to be native to Manchuria; used in the manufacture of bean curd.
82225. No. 1607. A medium-sized, round, yellow-seeded variety with a pale hilum, said to be native to Manchuria; grown extensively for the seeds, which are used in the manufacture of bean curd.
82226. No. 1608. A medium-large, nearly round, yellow-seeded variety with a brown hilum, said to be native to Manchuria; grown in this region for the seeds, which are used in the manufacture of bean curd.
82227. No. 1609. A medium-sized yellow-seeded variety with a light-brown hilum, said to be native to Manchuria; grown largely in this section for the seeds, which are used in the manufacture of bean curd.
82228. No. 1610. A medium-large, greenish-yellow seeded variety with a gray pubescence; said to be native to Manchuria; used for bean curd.
- 82229 to 82267. Obtained in the Chosen farmers' market, Keijo, October 28, 1929.
82229. No. 1640. *Pimajo*. A variety bearing black-and-white seeds with the seed coat split in fine network; said to be used in making confections.
82230. No. 1641. *Kamunjon*. A medium-sized, slightly flattened, black-seeded variety, said to be native to Chosen; used for making confections.

82182 to 82330—Continued.

82231. No. 1642. *Purukon*. A brown medium-sized, nearly round-seeded variety, said to be native to Chosen; used in making confections.
82232. No. 1643. *Ute*. A very small, light-yellow, round-seeded variety, said to be native to Chosen and to be used for sprouting.
82233. No. 1644. *Mennun*. A variety bearing medium-large, slightly flattened, black-and-brown seeds with the black in concentric rings like the Meyer variety [No. 17852]. It is said to be used in making confections.
82234. No. 1645. *Parakon*. A medium-large green-seeded variety, said to be native to Chosen.
82235. No. 1646. *Taichukon*. A medium-sized, nearly round, brown-seeded variety, said to be native to Chosen.
82236. No. 1647. *Purukon*. A medium-large, slightly flattened, green-seeded variety, said to be native to Chosen.
82237. No. 1648. *Hinkon No. 2*. A yellow-seeded variety which appears to have variations in the size of the seeds and in the color of the hilum; said to be native to Chosen.
82238. No. 1649. *Hinkon No. 1*. A medium-sized yellow-seeded variety with a pale hilum; said to be native to Chosen.
82239. No. 1650. *Konchonkon*. A medium-large, nearly round, black-seeded variety, said to be native to Chosen.
82240. No. 1651. *Kurugundunko*. Large, nearly round, yellow seeds slightly mottled with brown and having a pale hilum; said to be native to Chosen. The seeds are of the Dixie type.
82241. No. 1652. *Chonte*. A medium-large, nearly round, green-seeded variety, said to be native to Chosen.
82242. No. 1653. *Funkoe*. A medium-sized yellow-seeded variety, more or less mixed; said to be native to Chosen.
82243. No. 1654. *Menunikon*. A variety with medium-sized, slightly flattened, black-and-brown seeds, the black arranged in concentric rings like the Meyer variety [No. 17852]. It is said to be native to Chosen.
82244. No. 1655. *Kirugunte*. Medium-small green-and-yellow mixed varieties, said to be native to Chosen.
82245. No. 1656. *Kirugomu*. A very small yellow round-seeded variety, excellent for sprouts and used in Chosen for this purpose. It is said to be native to Chosen.
82246. No. 1657. *Funkonja*. A medium-sized, nearly round, yellow-seeded variety, more or less mixed. It is said to be native to Chosen.
82247. No. 1658. *Hinkon Kamunjon*. A medium-large, slightly flattened variety which is not a pure sort, as the seeds vary from black and brown

82182 to 82330—Continued.

to black. It is said to be native to Chosen and is used for confections.

82248. No. 1659. *Kamujan*. A medium-large, slightly flattened, black-seeded variety, said to be native to Chosen.
82249. No. 1660. *Hinkon*. A medium-large, nearly round, yellow-seeded variety, said to be native to Chosen.
82250. No. 1661. *Purunkon*. A medium-sized, slightly flattened, deep-green seeded variety said to be native to Chosen.
82251. No. 1662. *Hinkonyon*. A variety bearing medium-large, yellow seeds with a pale hilum, said to be native to Chosen. The seeds are of the Dixie type.
82252. No. 1663. *Funron*. A variety bearing medium-large, nearly round, deep-green seeds, said to be native to Chosen.
82253. No. 1664. *Komujonkon*. A variety bearing medium-large, nearly round, black seeds which are used in making confections. It is said to be native to Chosen.
82254. No. 1665. *Kirukun*. A very small, nearly round, yellow-seeded variety with a pale hilum. It is said to be native to Chosen and to be used for sprouting.
82255. No. 1666. *Kamujankon*. A variety bearing medium-large, more or less flattened black seeds, said to be native to Chosen and used in making confections.
82256. No. 1667. *Kirunte*. A variety bearing medium-small, round, yellow to olive-yellow seeds, said to be native to Chosen and used for sprouting.
82257. No. 1668. *Fukute*. A variety bearing medium-large, slightly flattened, black seeds. It is said to be native to Chosen and to be used for making confections.
82258. No. 1669. *Kirute*. A variety bearing medium-small, nearly round, yellow seeds with a pale hilum. It is said to be native to Chosen and to be used for sprouting. It appears to be an excellent bean for this purpose.
82259. No. 1670. *Chonte*. A medium-sized greenish-yellow variety with a pale hilum, said to be used as boiled beans and also boiled as cattle feed.
82260. No. 1671. *Chonte*. A medium-large, green, nearly round variety, used for boiling with other foods.
82261. No. 1672. *Chonte*. A medium-sized green variety with a light-brown hilum; used for boiled beans and also boiled as cattle feed.
82262. No. 1673. *Pepute*. A medium-large yellow variety with variations as to the color of the hilum; used in making bean curd, miso, and soy sauce.
82263. No. 1674. *Pepute* No. 2. A medium-sized, yellow, more or less mixed variety, used for making bean curd, miso, and soy sauce.

82182 to 82330—Continued.

82264. No. 1675. *Kwan Jo*. A very small, nearly round, yellow variety, used for sprouts and also cooked as cattle feed.
82265. No. 1676. *Ko Ko Te*. A very small black-seeded variety, nearly round, very similar in size and shape to the Kingston [No. 17255]. It is used for boiling.
82266. No. 1677. *Shin Fun*. A medium-sized green variety, used for boiling with other foods.
82267. No. 1693. *Hinkon*. A medium-large yellow-seeded variety, used in making bean curd, miso, and soy sauce, and also boiled as cattle feed.
- 82268 to 82281. Near Koryoho, October, 1929.
82268. No. 1814. *Bam Pan Kon*. A variety bearing medium-sized green seeds with a deep-brown hilum; used for food purposes.
82269. No. 1815. *Bam Mi Kon*. A medium-large brown variety, used as a split seed coat; used as boiled beans with other foods.
82270. No. 1816. *Chotan*. Medium-sized yellow seeds with variations in the color of the hilum; used for bean curd, miso, and soy sauce.
82271. No. 1817. A variety said to be wild; it is undoubtedly an escaped cultivated variety that volunteers freely. The seeds are olive green, medium sized, and much flattened, and are easily shattered.
82272. No. 1818. *Chotan*. A variety classed as an excellent grade. The seeds are medium sized, yellow, and have a pale hilum; used extensively because of their quality for bean curd.
82273. No. 1819. *Bam Pan Kon*. Medium-large buff-colored seeds with the seed coat more or less split; used as boiled beans and also cooked as cattle feed.
82274. No. 1820. *Chotan*. A medium-sized yellow variety more or less mixed as to the color of the hilum; used for bean curd, miso, and soy sauce.
82275. No. 1821. A mixture of brown, yellow, and black beans, used as boiled beans with other foods.
82276. No. 1822. *Oriaru Kon*. Seeds mixed, but mostly of a bluish-green color; used for cooking.
82277. No. 1823. Medium-sized black, slightly flattened seeds, used as boiled beans with other foods.
82278. No. 1824. A variety said to be wild, but it appears much like Sooty [No. 16790-A]. The plants are erect, not viny, quite branching, and the seeds are easily shattered. The seeds are medium small, much flattened, and a sooty black.
82279. No. 1825. Mixed sample of black and yellow beans used as boiled beans.
82280. No. 1826. Seeds medium large, black; used for boiled beans and in making confections.
82281. No. 1827. A mixture of yellow seeds, used for making miso, bean curd, and soy sauce.

82182 to 82330—Continued.

- 82282.** No. 1828. Obtained at the railway station, Chotan, October 30, 1929. *Chotan*. Medium-sized yellow seeds with a pale hilum; used for making bean curd, miso, and soy sauce.
- 82283.** No. 1829. From a farmer's field near Koryoho, October 30, 1929. A large, yellow-seeded, somewhat flattened variety; used for boiling with other foods.
- 82284.** No. 1830. A sample of the improved Chotan variety, obtained from the Director of the Soybean Improvement Society in the Yunai section, Chotan, October 30, 1929. A medium-sized yellow variety with a pale hilum. Because of its high protein content it is especially valuable for making soybean curd, and is exported to the main island largely for this purpose.
- 82285 to 82316.** Obtained in the Chosen farmers' market at Keijo, October, 1929.
- 82285.** No. 1840. *Somo Kute*. A very small, nearly round, black variety, very similar to Kingston [No. 17255], but with a yellow germ; used for boiling and also boiled as cattle feed.
- 82286.** No. 1841. *Kon Chote*. A very small, nearly round, yellow-seeded variety, more or less mixed, used for sprouts and also boiled as cattle feed.
- 82287.** No. 1842. *Kon Pute*. A mixed sample of black varieties ranging from medium small to medium large; used as boiled beans with other foods.
- 82288.** No. 1843. *Paru Kon Hon*. Medium-sized brown seeds, used as boiled beans with other foods.
- 82289.** No. 1844. *Kon Pute*. Medium-large black seeds with the seed coat having a tendency to split; used as food.
- 82290.** No. 1845. *Kon Chotan*. Medium to medium-large yellow beans, more or less mixed; used for tofu, miso, and soy sauce.
- 82291.** No. 1846. *Kon Sui Yen*. Seeds very small, yellow, nearly round; used for sprouting and also for cooking.
- 82292.** No. 1847. *Kon Chonge*. Seeds green with a light-brown hilum.
- 82293.** No. 1848. *Purute*. Seeds medium sized, brown; used as boiled beans.
- 82294.** No. 1849. *Kon Chotan*. Medium-sized yellow seeds, grown in the Chotan section; said to be excellent for making bean curd.
- 82295.** No. 1850. *Maru Kon Chotan*. Seeds medium sized, yellow, but mixed as to the color of the hilum; originally from the Chotan district; used for making bean curd, miso, and soy sauce.
- 82296.** No. 1851. *Kon Kongenoto*. Seeds medium-large, yellow, mixed as to color of hilum; used for bean curd, miso, and soy sauce.
- 82297.** No. 1852. *Oiaru*. Medium-large black-and-brown seeds with the colors arranged in concentric bands

82182 to 82330—Continued.

- like the Meyer [No. 17852]; used as boiled beans and in making confections.
- 82298.** No. 1853. *Kon Jon Kon*. A medium-sized black variety, used for boiling with other foods and also in making confections.
- 82299.** No. 1854. *Kon Kiru Muten*. A small, yellow to greenish, nearly round variety, used for sprouting and also cooked for cattle feed.
- 82300.** No. 1855. *Kon Papute*. Mixed sample of yellow-seeded varieties.
- 82301.** No. 1856. *Kiru Gunte*. Medium-small, nearly round, yellow seeds with a slate-brown hilum; used for sprouting and as boiled beans.
- 82302.** No. 1857. *Kiru Gunte*. Very small, nearly round, yellow variety, somewhat mixed; used for sprouting and boiled as cattle feed.
- 82303.** No. 1858. *Hon Kon*. Medium-large yellow seeds with a pale hilum; used for bean curd, miso, and soy sauce.
- 82304.** No. 1859. *Fin Kona Pute*. A medium-sized, yellow, more or less mixed variety; used for bean curd and also boiled as cattle feed.
- 82305.** No. 1860. *Kon Jon Kon*. A medium-large black variety, used for boiling and also for making confections.
- 82306.** No. 1861. *Kirun Kon*. A very small, nearly round, yellow, more or less mixed variety, used for sprouting and also boiled as cattle feed.
- 82307.** No. 1862. *Hon Kon*. A medium-sized yellow variety with a pale hilum; used for making bean curd, miso, and soy sauce. It is very similar to Chotan.
- 82308.** No. 1863. *Kon Chonte*. A medium-sized greenish-yellow variety, very similar to Tokyo [No. 17264]. Used as boiled beans and also cooked as cattle feed.
- 82309.** No. 1864. *Hon Kon*. A medium-sized yellow-seeded variety with a russet-brown hilum; used for bean curd and miso and also boiled for cattle feed.
- 82310.** No. 1865. *Kon Jon Kon*. A large black-seeded variety, used for boiling with other foods and also in making confections.
- 82311.** No. 1866. *Kon Papute*. Seeds medium sized, yellow, with variations in the color of the hilum; used for cattle feed when boiled.
- 82312.** No. 1867. *Kitu Gunte*. A very small, nearly round, yellow-seeded variety, used for sprouts and also boiled for cattle feed.
- 82313.** No. 1871. *Kon Chon*. A medium-small green variety with a light-brown hilum; used for cooking with other foods.
- 82314.** No. 1872. A medium-sized yellow sample, but mixed as to varieties; used for bean curd, miso, and soy sauce, and also boiled for cattle feed.

82182 to 82330—Continued.

- 82315.** No. 1873. Medium-sized, yellow seeds, more or less mottled with brown, with many variations as to color of hilum; used for miso and also cooked for cattle feed.
- 82316.** No. 1874. A medium-large, black, slightly flattened variety, used as boiled beans and also for making confections.
- 82317.** No. 1876. Obtained in Suigen, November 2, 1929. *Kom Jon Kon*. Black seeds of evidently several varieties varying from medium small to medium; used for boiled beans with other foods.
- 82318.** No. 1877. Obtained in Suigen, November 2, 1929. *Fun Kon*. Seeds yellow, but of several varieties; used in making miso and also cooked for cattle feed.
- 82319 to 82325.** Obtained in Kami Jinsen, November 4, 1929.
- 82319.** No. 1881. *Hinkon*. A very small, nearly round, yellow-seeded variety with a light-brown hilum; used for making sprouts.
- 82320.** No. 1882. *Fu Yon Kon*. Medium-small green seeds with a white hilum; used for sprouts and boiled beans.
- 82321.** No. 1883. *Fun Ban Kon*. Mixed sample with large percentage of bluish black on yellow; used as a cattle feed when cooked.
- 82322.** No. 1884. *Kiru Gunte*. A small yellow-seeded variety with a pale hilum; used for sprouts.
- 82323.** No. 1885. *Pa Ran Kon*. Medium-small greenish-yellow seeds with a light-brown hilum; used for sprouts and as boiled beans.
- 82324.** No. 1886. *Komu Jon Kon*. Medium-large black seeds, used as boiled beans and in making confections.
- 82325.** No. 1887. *Hon Jon Kon*. Mixed sample of yellow-seeded varieties, used as boiled beans and also boiled for cattle feed.
- 82326 to 82330.** Obtained in Jinsen, November 4, 1929.
- 82326.** No. 1888. *Chotan*. A medium-sized, nearly round, glossy yellow variety with a pale hilum. It is extensively grown and considered one of the best varieties for making bean curd, and is also used for making miso and soy sauce.
- 82327.** No. 1889. *Chotan*. Seeds medium sized, yellow with a pale hilum; used for bean curd, miso, and soy sauce.
- 82328.** No. 1890. *Rensen*. Medium-sized, glossy yellow seeds with a pale hilum and a light mixture of yellow seeds with a light-brown hilum; used for bean curd, miso, and soybean sauce.
- 82329.** No. 1891. *Rensen*. Seeds medium-sized, glossy yellow, with a considerable proportion having a light-brown hilum; used for bean curd, miso, and soy sauce.
- 82330.** No. 1892. Seeds of a medium-sized yellow variety with a russet-brown hilum; said to be an excellent oil variety.

82331 to 82341.

- From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.
- 82331.** *SOPHORA* sp. Fabaceae.
No. 1201. Plants, 3 to 4 feet high, growing in the woods of the Chosen Government Forest Reservation near Keijo, November 6, 1929. Of possible value as a green manure.
- 82332 and 82333.** *SORBUS ALNIFOLIA* (Sieb. and Zucc.) Koch (*Pyrus alnifolia* Franch.). Malaceae. **Mountain-ash.**
An upright tree with a dense round head, attractive bright-green foliage, and clusters of small red and yellow fruits. Native to eastern Asia.
For previous introduction see No. 77844.
- 82332.** No. 1551. From trees, 20 feet or more high, growing in the Imperial Botanical Garden, Keijo, October 26, 1929.
- 82333.** No. 1564. From Keijo, October 28, 1929.
- 82334 to 82340.** *SORGHUM VULGARE* Pers. Poaceae. **Sorghum.**
82334. No. 1264. Near Kokato, November 11, 1929. *Susa*. A variety used as a food.
82335. No. 1708. From an upland valley with apparently rather adverse conditions, between Rensen and Zenkoku, November 7, 1929.
82336 to 82340. From the Chosen farmers' market, Keijo, October 31, 1929. *Susa*.
- 82336.** No. 1807.
82337. No. 1808.
82338. No. 1809.
82339. No. 1810.
82340. No. 1811.
- 82341.** *SPIRAEA SALICIFOLIA* L. Rosaceae. **Willowleaf spirea.**
No. 1579. From the forestry branch of the Agricultural Experiment Station, Suigen, November 2, 1929.
- 82342 to 82358.**
From Chosen and Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.
- 82342.** *SYRINGA* sp. Oleaceae. **Lilac.**
No. 1595. From the Forestry Experiment Station of the Government of Chosen, Keijo, November 6, 1929. Said to be the best white variety; native to Chosen.
- 82343 to 82345.** *TRIFOLIUM PRATENSE* L. Fabaceae. **Red clover.**
82343. No. 1617. From the Chosen Imperial Tree Peony Gardens, Keijo, October 26, 1929. Plants about 3 feet long with numerous long stems and quite an abundance of flower heads.
82344. No. 1618. From the Chosen Imperial Grounds, Keijo, October 26, 1929. Seeds deep purple.

82342 to 82358—Continued.

82345. No. 1619. From the Chosen Imperial Grounds, Keijo, October 26, 1929.

82346. *VIBURNUM* sp. Caprifoliaceae.

No. 1553. From the Imperial Botanical Garden, Keijo, October 26, 1929. A variety said to be native to Chosen, with handsome foliage varying from green to deep maroon, and black fruits.

82347 to 82351. *VIGNA SINENSIS* (Torner) Savi. Fabaceae. Cowpea.

82347. No. 1259. Near Kokoto, Chosen, November 11, 1929. *Tonbu*. A brown-eyed, small, white variety used as food.

82348 to 82351. Obtained in the Chosen farmers' market, Keijo, October 31, 1929.

82348. No. 1697. *Sasage*. A medium-small variety, white, with brown eye; used for food.

82349. No. 1698. *Tongu*. A medium-small variety, white, with brown eye; used for food.

82350. No. 1836. *Tonbu*. A medium-small variety, white, with brown eye.

82351. No. 1837. *Tonbu*. A medium-small variety with brown eye; used for food.

82352. *VITIS* sp. Vitaceae. Grape.

No. 1548. Obtained along the railroad between Onohara and Kuraya, October 18, 1929. A low vine with small compact clusters of small deep-purple to black berries.

82353. *ZELKOVA SERRATA* (Thunb.) Makino (*Z. acuminata* Planch.). Ulmaceae. Sawleaf zelkova.

No. 1565. From the Imperial Botanical Garden, Keijo, October 27, 1929. A handsome tree up to 90 feet high, with a short trunk dividing into many upright spreading branches and forming a broad, round-topped head. The sharply serrate leaves are ovate and are usually 2 to 3 inches long, or on young shoots up to 8 inches long.

For previous introduction see No. 79148.

82354. (Undetermined.)

No. 1209. From the Chosen Government Forest Reservation near Keijo, November 6, 1929. A plant about 3 feet high which may be of value for green manure.

82355. (Undetermined.)

No. 1630. A shrub about 8 feet high used as an ornamental in the Chosen Imperial Grounds, Keijo, October 26, 1929. This somewhat resembles the tree *lespedeza*, but bears beanlike pods.

82356. *GREWIA PARVIFLORA* Bunge. Tilliaceae.

No. 1517. From the Forestry Experiment Station of the Government of Chosen, Keijo, November 6, 1929.

For previous introduction see No. 71146.

82357. (Undetermined.)

82342 to 82358—Continued.

No. 1611. A very viny legume growing along the road near Onohara, October 18, 1929. It makes a fairly abundant growth and may have value as green manure.

82358. (Undetermined.)

No. 1703. From the Forestry Experiment Station of the Government General of Chosen, Keijo, November 6, 1929. A small deciduous shrub about 5 feet high.

82359 to 82383.

From Nancy, France. Plants purchased from Lemoine & Sons. Received December 17, 1929.

82359 to 82365. *CLEMATIS* spp. Ranunculaceae.82359. *CLEMATIS CHRYSOCOMA* Franch.

A woody vine up to 20 feet high, or often an upright shrub, with the young branchlets, leaves, and flower stalks covered with dense yellow pubescence. The leaves are made up of three ovate to obovate 3-lobed or coarsely toothed leaflets, and the pink-tinged white flowers, nearly 2 inches across, are borne either in fascicles of one to five from axillary buds or on the new growth, continuing to bloom through August and September. Native to western China.

82360. *CLEMATIS FARGESII* Franch.

A woody climber up to 20 feet high, with bipinnate leaves made up of five to seven 3-foliate or incisely serrate ovate leaflets. The pure white flowers, 1 to 2 inches across, are solitary or in 3-flowered clusters and are borne on a peduncle 4 to 8 inches long. Native to western China.

For previous introduction see No. 49935.

82361 to 82363. *CLEMATIS MONTANA* Buch.-Ham. *Anemone clematis*.

82361. Variety *Perfecta*. A variety bearing lilac-white flowers with broad sepals.

82362. Variety *Superba*. A hybrid between *Clematis montana rubens* and *C. patens*. It is a very vigorous climber with large white flowers.

82363. Variety *Undulata*. A variety bearing large flowers which are white flushed with mauve and have waved sepals.

82364. *CLEMATIS MONTANA LILACINA* Lemoine.

A variety with large azure-lilac flowers.

82365. *CLEMATIS MONTANA WILSONII* Sprague.

A hardy climbing clematis native to western China. It often attains a height of 20 feet or more, and during June and July bears an abundance of sweet-scented flowers about an inch long, which are white, occasionally yellowish, or rosy tinged. There is generally a second flower in the autumn.

For previous introduction see No. 62705.

82359 to 82383—Continued.

82366. CLEMATOCLETHRA INTEGRIFOLIA Maxim. Dilleniaceae.

A deciduous climbing shrub with ovate-oblong leaves 2 to 4 inches long, and white clethralike flowers, either solitary or in few-flowered clusters, followed by berrylike black fruits. Native to north-western China.

82367. ESCALLONIA sp. Escalloniaceae.

C. F. Ball. A red-flowered hybrid made by *C. F. Ball* at the Botanic Gardens, Glasnevin. It is believed to be a cross between *Escallonia rubra* and *E. macrantha*.

For previous introduction see No. 80101.

82368 to 82371. JASMINUM spp. Oleaceae. Jasmine.

82368. JASMINUM BEESIANUM Forrest and Diels. Rosy jasmine.

A slender shrub about 3 feet high, with grooved branchlets and leaves reduced to one lanceolate leaflet 2 to 4 inches long. The pink to deep-rose, salver-shaped fragrant flowers are borne in clusters of one to three. Native to western China.

82369. JASMINUM GERALDI Diels.

A spreading deciduous shrub up to 6 feet high, with hairy, angled branchlets, compound leaves of three to five ovate leaflets, and yellow flowers in clusters of three to nine, followed by black fruits. Native to central China.

82370 and 82371. JASMINUM HETERO-PHYLLUM Roxb.

82370. A stout shrubby jasmine with shiny, alternate, narrowly oval leaves up to 5 inches long. The flowers are yellow, up to one-third of an inch long, and occur in compound cymes.

82371. Variety *glabricymosum*. A smooth-flowered form of this Himalayan shrub which is said to be native to China. It is a strong-growing bush with a profusion of golden-yellow flowers.

For previous introduction see No. 76581.

82372 to 82374. NEILLIA spp. Rosaceae.

82372. NEILLIA LONGIRACEMOSA Hemsl.

A deciduous shrub up to 10 feet high, with ovate-cordate, usually entire leaves 2 to 3 inches long, and tubular pink flowers in dense solitary racemes sometimes 6 inches long. Native to western China.

82373. NEILLIA RIBESIOIDES Rehder.

A deciduous shrub 3 to 6 feet high, with triangular-ovate, usually 3-lobed leaves, and clusters of pink flowers. Native to western China.

82374. NEILLIA THIBETICA Franch.

A deciduous shrub closely related to *Neillia longiracemosa*, but usually 3 to 6 feet high, the leaves slightly three lobed, and the racemes shorter. Native to western China.

82375. NOTHOPANAX DAVIDI (Franch.) Harms. Araliaceae.

An evergreen shrub with smooth brown-

82359 to 82383—Continued.

ish bark, thick leathery bright-green entire or sometimes 3-lobed leaves, and rather large greenish-white flowers in terminal racemose umbels up to 6 inches long. Native to the mountains of Moupin, China.

82376. OSMANTHUS ARMATUS Diels. Oleaceae.

An evergreen shrub, native to China, up to 15 feet high, with opposite, oblong, spiny-toothed leaves 4 to 6 inches long, axillary or terminal panicles of small fragrant white flowers, and ovoid fruits.

For previous introduction see No. 77688.

82377. OSMANTHUS SERRULATUS Rehder.

An evergreen shrub or small tree, native to China, sometimes 35 feet high, with coriaceous obovate spiny serrulate leaves 3 to 5 inches long, panicles of fragrant white flowers, and black fruits. It is closely related to *Osmanthus fragrans*.

For previous introduction see No. 77689.

82378. STYRAX JAPONICUM Sieb. and Zucc. Styracaceae. Japanese snowbell.

Variety *fargesii*. A handsome variety introduced from central China by the late Maurice de Vilmorin. It differs from the well-known type by its taller branches, more ample foliage, and larger pendulous flowers of a snowy whiteness.

For previous introduction see No. 78156.

82379 to 82383. VIBURNUM spp. Caprifoliaceae.

82379. VIBURNUM BITCHIUENSE Makino. Yeddo viburnum.

A deciduous shrub, closely related to *Viburnum carlesii*, with more slender branches and smaller leaves and cymes. It is a shrub 3 to 5 feet high, bearing fragrant white flowers and blue-black fruits. Native to Japan.

82380. VIBURNUM CYLINDRICUM Buch.-Ham.

A handsome evergreen shrub or small tree which is very distinct because of its tubular-campanulate flowers. The dark dull-green, nearly entire oblong leaves are 3 to 8 inches long, the white flowers have violet anthers, and the fruits are purplish black. Native to the Himalayas and western China.

For previous introduction see No. 47826.

82381. VIBURNUM FRAGRANS Bunge.

A shrub up to 10 feet high, bearing an abundance of very fragrant flowers which are white shaded with rose and appear in the early spring before the leaves. The elliptic, serrate leaves are 2 to 4 inches long, with purplish petioles, and the ovoid fruits are blue black. Native to northern China.

For previous introduction see No. 66319.

82382. VIBURNUM PROPINQUUM Hemsl.

An evergreen shrub with lustrous reddish-brown branchlets, elliptic to ovate-lanceolate nearly entire leaves 2 to 4 inches long, and greenish-white flowers followed by globular blue-black fruits. Native to central and western China.

82359 to 82383—Continued.

82383. VIBURNUM UTILE Hemsl.
Service viburnum.

A handsome evergreen shrub of rather open habit with dark glossy green, leathery leaves and pure white flowers produced in dense, terminal, rounded trusses during the spring. These are succeeded by oval, blue-black berries. The shrub is native to western China, where it is said to grow on limestone soils.

For previous introduction see No. 66323.

82384 to 82396.

From Erfurt, Germany. Bulbs purchased from Haage & Schmidt. Received December 16, 1929.

82384 to 82394. ALLIUM spp. Liliaceae.
Onion.

82384. ALLIUM ATROPUREUM Waldst, and Kit.

For previous introduction and description see No. 82009.

82385. ALLIUM AZUREUM Hort.

A blue-flowered onion, to be grown for identification.

82386. ALLIUM CYANEUM Regel.

A rather dwarf plant, less than a foot high, with small heads of pendulous bright-blue flowers. Native to northern China.

For previous introduction see No. 78979.

82387. ALLIUM GIGANTEUM Regel.

One of the tallest members of the genus, becoming 4 feet high. It is native to the Himalayas. The bulbs are large, and the fleshy leaves are about 18 inches long, lying close to the ground. The bright-lilac flowers are in heads 4 inches in diameter.

For previous introduction see No. 78981.

82388. ALLIUM GLAUCUM Hort.

An onion with broad glaucous leaves and small heads of rose-colored flowers in September.

82389. ALLIUM NARCISSIFLORUM Vill.

For previous introduction and description see No. 82016.

82390. ALLIUM OSTROWSKIANUM Regel.

For previous introduction and description see No. 82017.

82391. ALLIUM PENDULINUM Tenore.

An alpine, native to Italy, with linear keeled leaves and long-peduncled nodding whitish flowers.

For previous introduction see No. 78990.

82392. ALLIUM ROSENBACKIANUM Regel.

A bulbous perennial, native to Turkestan, with oblong lanceolate leaves 8 inches high, and a large globular umbel of purple flowers on a scape 2 feet high.

For previous introduction see No. 76209.

82393. ALLIUM SCHUBERTII Zucc.

A large bulbous plant, native to Asia Minor and Persia, with broadly strap-shaped leaves, and huge subglobose rose-colored flower heads which are at times a foot in diameter.

82384 to 82396—Continued.

82394. ALLIUM STIPITATUM Regel.

A herbaceous perennial with linear-lanceolate leaves, a stem 2 to 3 feet high, and many-flowered hemispheric umbels of rose-lilac fragrant flowers. Native to central Asia.

82395. NOTHOSCORDUM FRAGRANS (Vent.) Kunth. Liliaceae.

A bulbous plant, native to tropical America, closely related to the onion. The bulb is round and yellowish white, and the linear, obtuse leaves are 8 to 12 inches long. The fragrant flowers, white flushed with pink, have purplish stamens and anthers and are borne on a scape 20 inches high.

For previous introduction see No. 79175.

82396. ROSCOEA PURPUREA J. E. Smith. Zinziberaceae.

Variety *sikkimensis*. A form with more numerous flowers of a different shade of purple from the type, which is a herbaceous perennial a foot high with lanceolate leaves and purple, pale-lilac, or white flowers in a sessile spike. Native to the Himalayas in northern India.

82397. QUERCUS SUBER L. Fagaceae.
Cork oak.

From Santa Olalla, Huelva, Spain. Acorns presented by Edward E. Silvers, Armstrong Cork Co., Seville, through Frank L. Goll, Bureau of Plant Industry. Received December 20, 1929.

For previous introduction see No. 76019.

82398. FICUS ALTISSIMA Blume. Moraceae.
Lofty fig.

From Oneco, Fla. Plants presented by N. A. Reasoner, Royal Palm Nurseries. Received November 4, 1929.

A large spreading tree native to the tropical Himalayas. It is said to yield as good caoutchouc as its relative, *Ficus elastica*.

For previous introduction see No. 47843.

82399. BUTIA CAPITATA (Mart.) Beccari (*Cocos capitata* Mart.). Phoenicaceae.
Palm.

From Nice, France. Seeds collected by Dr. H. S. Fawcett, College of Agriculture, University of California, Riverside, Calif. Received December 12, 1929.

A large coconutlike palm, native to Argentina, with a spineless trunk, pinnate leaves, and large bunches of small edible fruits. It is said to be harder than any species of *Cocos*.

For previous introduction see No. 77149.

82400. MALUS SYLVESTRIS Mill. (*Pyrus malus* L.). Malaceae.
Apple.

From Saonara, near Padua, Italy. Trees purchased from Fratelli Sgaravatti. Received December 14, 1929.

Limonella. A winter apple producing ovoid, medium-sized fruits with yellow skin and tender flesh of exquisite flavor.

82401 to 82403.

From Heijo, Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 16, 1929.

82401 to 82403—Continued.

82401. CRATAEGUS sp. Malaceae.
Hawthorn.

No. 1784. Obtained in the market, November 18, 1929. *Irrubin*. The native name may mean hawthorn or small fruit. The fruits are medium sized.

82402. CELASTRUS ARTICULATUS Thunb.
Celastraceae. Bittersweet.

No. 1768. A vine climbing over a rose-bush along the roadside northwest of Heijo, November 17, 1929.

82403. SOJA MAX (L.) Piper (*Glycine hispida* Maxim.). Fabaceae. Soybean.

No. 1282. November 16, 1929. *Purakon*. A variety with medium-sized oval-shaped brown seeds, said to be used for cattle feed when boiled.

82404 and 82405. MEDICAGO SATIVA L.
Fabaceae. Alfalfa.

From Italy. Seeds obtained through H. L. Westover, Bureau of Plant Industry. Received December 20, 1929.

82404. From the Stabillimento Guido Calosi, Florence.

82405. From Fratellia Ingegnolia, Milan.

82406. FRAGARIA HAGENBACHIANA Lange. Rosaceae. Strawberry.

From Paris, France. Plants presented by Vilmorin-Andrieux & Co. Received December 26, 1929.

A French strawberry closely related to *Fragaria viridis*, but flowering earlier and having all the leaflets petiolate.

82407. PISTACIA VERA L. Anacardiaceae. Pistache.

From Rahimabad, Persia. Seedlings collected by W. E. Whitehouse, Bureau of Plant Industry. Received December 27, 1929.

No. 174. From the nursery of Cholam Reza Yazdi, November 19, 1929. Seedling trees grown by a Persian pistache grower from selected nuts of large size.

82408. BROMELIA PINGVIN L. Bromeliaceae.

From Rio Piedras, Porto Rico. Seeds presented by Pedro Osuna, Horticulturist, Insular Experiment Station, Department of Agriculture and Labor. Received December 27, 1929.

A tropical succulent plant, 3 to 4 feet high, with spiny margined leaves that turn red with age. The reddish flowers are in dense panicles, and the acid fruits, the size of plums, yield a cooling juice. Native to the West Indies.

For previous introduction see No. 76199.

82409. CEIBA AESCULIFOLIA (H. B. K.) Britt and Baker. Bombacaceae.

From Zacuapam, Huatusco, Vera Cruz, Mexico. Seeds presented by Dr. C. A. Purpus. Received December 27, 1929.

The horsechestnut-leaved pochote is a medium-sized tree 20 to 30 feet high and usually diffusely branched. Its trunk and larger branches bear stout coarse spines. The leaves are palmately compound, with five to seven elliptic or obovate leaflets, 2

82409—Continued.

to 8 inches long, usually glaucescent beneath. The flowers are white at first, but turn brown with age. The petals are 4 to 6 inches long, yellow, hairy on the outside. The seed pods are ellipsoid oblong, 5 to 8 inches long, five celled, with five segments about one-fourth of an inch thick, and bearing on the placental membranes white downlike kapok and brown finely roughened seeds, irregularly spheroidal, one-fourth of an inch in diameter. The down, consisting of fine unicellular hairs about an inch long, may serve the same purpose as kapok for filling mattresses, cushions, life preservers, and insulation. This tree is native from Vera Cruz across southern Mexico to southern Jalisco and southward to Guatemala.

82410 to 82412. DIOSPYROS KAKI L. f.
Diospyraceae. Kaki persimmon.

From Keijo, Chosen. Scions collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 23, 1929.

Obtained from trees at the residence of Chinzo Herata on Keijo Shrine, November 21, 1929.

82410. No. 1931. *Banshi*. A variety bearing rather small flat fruits.

82411. No. 1932. *Banshi*. A rather small flat persimmon, supposed to be the same as No. 1931 [No. 82410], but the scions are from a different tree.

82412. No. 1933. *Dangu rana*. A rather small round-fruited variety.

82413 to 82418. AMYGDALUS PERSICA L.
(*Prunus persica* Stokes). Amygdalaceae. Peach.

From Palestine. Seeds presented by A. Grasovsky, Subinspector of Agriculture and Forests, Southern Circle, Jerusalem. Received December 30, 1929.

82413. No. 1. *Baladi*. From Jerusalem.

82414. No. 2. *Baladi*. From Motza.

82415. No. 6. *Baladi*. From Safed.

82416. No. 3. *Franji*. From Nazareth.

82417. No. 4. *Franji*. From Artas.

82418. No. 5. *Franji*. From Acre.

82419 to 82446.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 23, 1929.

82419. CHRYSANTHEMUM MORIFOLIUM (Ramat.) Hemsl. Asteraceae.
Mulberry chrysanthemum.

No. 1745. Obtained at the base of Shariin Fuji to the south and southeast of Shariin, November 14, 1929. A rather tall-growing wild species with yellow flowers about half an inch in diameter.

82420. COCCULUS TRILOBUS (Thunb.) DC. Menispermaceae. Japanese snailseed.

No. 1738. Growing near the top of the mountain near the office of the village society at Koka, island of Kokato, November 10, 1929. Fruits bright blue.

82421. DIOSPYROS LOTUS L. Diospyraceae. Dateplum.

82419 to 82446—Continued.

No. 1730. Obtained from young trees or rather water sprouts at Koka, island of Kokato, November 10, 1929. A native wild species used for stocks.

82422. CELASTRUS ARTICULATUS Thunb. Celastraceae. **Bittersweet.**

No. 1719. From a vine on the hill north of the village of Koka, near the office of the village society, island of Kokato, November 10, 1929.

82423. EUONYMUS sp. Celastraceae.

No. 1766. Near the village of Ryugakaku, northwest of Heijo, November 17, 1929. *Daido gun.* A dwarf-growing species.

82424. EUONYMUS sp. Celastraceae.

No. 1771. Near the village of Ryugakaku, November 17, 1929. Small plants with winged branches.

82425 to 82427. FAGOPYRUM ESCULENTUM Moench. Polygonaceae. **Buckwheat.**

82425. No. 1748. Obtained in the market at Kokaikashu, November 15, 1929. Used chiefly for noodles.

82426. No. 1749. Obtained in the market at Kokaikashu, November 15, 1929. Used chiefly for noodles.

82427. No. 1789. Heijo, November 18, 1929. Used chiefly for noodles.

82428. FRAXINUS sp. Oleaceae. **Ash.**

No. 1746. From a small tree at the base of Shariin Fuji, November 14, 1929. One tree in the village measured 18 inches or more in diameter and 50 feet or more high. It is probably a good timber tree.

82429 and 82430. GOSSYPIUM NANKING Meyen. Malvaceae. **Cotton.**

82429. No. 1735. Koka, island of Kokato, November 10, 1929. From a small planting on very poor land, the plants measuring 18 inches to 2 feet high.

82430. No. 1770. Ringen, November 17, 1929. Seeds from what was left in a small planted area of Chosen native cotton.

82431. HEMEROCALLIS sp. Liliaceae. **Daylily.**

No. 1772. Obtained from plants in the woods near the road a short distance from the small village of Ringen, November 17, 1929. The flower stalks are 1 to 2 feet high and the flowers probably light yellow.

82432 to 82438. LESPEDEZA spp. Fabaceae. **Bushclover.**

82432. LESPEDEZA sp.

No. 1273. From plants near the top of Shariin Fuji, November 14, 1929. A fairly erect variety 12 to 18 inches high.

82433. LESPEDEZA sp.

No. 1274. From plants along the slope of Shariin Fuji, near Shariin, November 14, 1929. An erect variety, 2 to 3 feet high, with an abundance of pods on the branches and main stem.

82434. LESPEDEZA sp.

No. 1275. From plants along the slope of Shariin Fuji, Shariin, Novem-

82419 to 82446—Continued.

ber 14, 1929. An erect variety, 2 to 3 feet high, with buttonlike clusters of pods on the main stem and branches.

82435. LESPEDEZA sp.

No. 1778. From plants along the mountain side near Fusanmeu, November 17, 1929. A variety over 3 feet high.

82436. LESPEDEZA sp.

No. 1779. Gathered along the mountain side near Fusanmeu, November 17, 1929. A variety of excellent growth 10 to 16 inches high, with an abundance of pods.

82437. LESPEDEZA sp.

No. 1780. Gathered from plants along the mountain side near Fusanmeu, November 17, 1929. A variety over 3 feet high, bearing pods along the main stem and branches.

82438. LESPEDEZA sp.

No. 1781. Gathered from plants along the mountain side near Fusanmeu, November 17, 1929. A variety 3 to 4 feet high.

82439. PISUM SATIVUM L. Fabaceae. **Pea.**

No. 2015. Obtained in the Chosen grain market at Keijo, November 21, 1929. Reddish, medium-sized, wrinkled seeds.

82440. RHAMNUS sp. Rhamnaceae. **Buckthorn.**

No. 1783. Northwest of Heijo. A variety over 5 feet high.

82441 to 82443. RHODODENDRON spp. Ericaceae. **Azalea.**

82441. RHODODENDRON sp.

No. 1750. Obtained from the garden of the Chikuzenya Inn, Shariin, November 15, 1929. A rather small-leaved variety 5 to 6 feet high.

82442. RHODODENDRON sp.

No. 1767. From small plants on the mountain side northwest of Heijo, November 17, 1929.

82443. RHODODENDRON sp.

No. 1773. From small plants, seldom more than 18 inches high, growing on an exposed dry rocky hill or mountain side, Ringen, November 17, 1929.

82444. RIBES sp. Grossulariaceae.

No. 1721. Collected just back of the office of the village society, Funai or Koka, island of Kokato, November 10, 1929, and also from plants in the village of Sanserl.

82445. ROSA sp. Rosaceae. **Rose.**

No. 1769. Collected from plants along the roadside northwest of Heijo, November 17, 1929. A variety 6 feet or more high which did not resemble the common wild rose of Japan.

82446. TRIFOLIUM PRATENSE L. Fabaceae. **Red clover.**

No. 1271. From plants in front of the Western Chosen Agricultural Experiment Station, Shariin, November 13, 1929. A variety about 2 feet high, with many stems and an abundance of seeds.

82447. TRITICUM AESTIVUM L. (*T. vulgare* Vill.). Poaceae.**Common wheat.**

From Russia. Seeds collected by A. J. Bruman. Received December 26, 1929.

From the Chongar Peninsula, a small peninsula in the Azof Sea, north of the Crimea, August, 1929. *Krimka Chongarka*. A winter wheat of the variety *Krimka* which was brought to Chongar from the Crimea about seven or eight years ago. It has apparently become thoroughly acclimated to the severe winters and extremely dry summers of Chongar. The name *Krimka Chongarka* is suggested for the reason that the variety has become quite distinct from the original *Krimka*.

82448 to 82467. TRITICUM AESTIVUM L. (*T. vulgare* Vill.). Poaceae.**Common wheat.**

From Sydney, New South Wales, Australia. Seeds presented by J. T. Pridham, plant breeder of the Cowra Experiment Farm of the Department of Agriculture. Received November 1, 1929.

82448. *Aussie*.82449. *Bena*.82450. *Bobin*.82451. *Boolaroo*.82452. *Boonoo*.82453. *Bredbo*.82454. *Burrill*.82455. *Canberra*.82456. *Canimbla*.82457. *Duchess*.82458. *Erquisite*.82459. *Gluyas*.82460. *Gresley*.82461. *Marshall's No. 3*.82462. *Nabawa*.82463. *Ranee*.82464. *Union*.82465. *Wandilla*.82466. *Waratah*.82467. *Yandilla King*.**82468. DIOSCOREA SEPTEMLoba Thunb. Dioscoreaceae. Yam.**

From Keijo, Chosen. Tubers collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 23, 1929.

No. 1929. November 21, 1929. The tubers received were irregularly subglobose and weighed slightly more than a pound each. The flesh of this yam is fine grained and very white and when cooked might easily pass for a white potato of exceptionally high quality.

82469. TRITICUM AESTIVUM L. (*T. vulgare* Vill.). Poaceae.**Common wheat.**

From Heijo, Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 23, 1929.

No. 1785. November 18, 1929. *Poubiru*. Said to be a spring wheat.

82470 to 82488.

From Chosen. Seeds presented by T. Watanabe, Forest Experiment Station, Keijo. Received December 26, 1929.

82470. ABIES HOLOPHYLLA Maxim. Pina- ceae. Needle fir.

From Kyosen. A tall, handsome fir, eventually 100 feet or more high, with stout spreading or ascending branches and dark-green foliage.

For previous introduction see No. 66257.

82471. ACER PSEUDO-SIEBOLDIANUM Komarov. Aceraceae. Maple.

From Hosen. A small maple, native to Manchuria, with cordate leaves divided into 9 to 11 lanceolate serrate lobes, and corymbs of purple flowers.

For previous introduction see No. 78399.

82472. ACER TRIFLORUM Komarov. Acera- ceae. Maple.

From Hosen. A tree up to 25 feet high, with glabrous branchlets. The leaves are made up of three oblong-lanceolate leaflets with entire or coarsely toothed margins, and the flowers, in groups of three, are followed by densely pubescent fruits having wide-spreading, nearly straight wings nearly 2 inches long. Native to Chosen and Manchuria.

82473. ALNUS HIRSUTA SIBIRICA (Fisch.) C. Schneid. Betulaceae. Alder.

From Keijo. A handsome tree, native to Siberia, 60 feet high, of broad-pyramidal habit and vigorous growth, with broadly ovate leaves, about 5 inches long, which are dark green above and glaucous beneath.

For previous introduction see No. 76050.

82474. BETULA DAVURICA Pall. Betula- ceae. Birch.

From Keijo. A tree up to 60 feet high, with widespreading branches and purplish-brown flaky bark. The broadly wedge-shaped leaves, 2 to 4 inches long, are dark green above and have serrate margins.

For previous introduction see No. 78400.

82475. CORNUS COREANA Wanger. Corna- ceae. Dogwood.

From Heizan. A tree, native to Chosen, up to 60 feet high, with reddish-brown branchlets, dark-green, elliptic leaves 3 to 6 inches long, loose clusters of small white flowers, and black fruits.

For previous introduction see No. 78401.

82476. CORNUS OFFICINALIS Sieb. and Zucc. Cornaceae. Japanese cornelian-cherry.

From Hosen. A shrub or small tree up to 30 feet high, closely resembling the common cornelian-cherry, *Cornus mas*. The ovate to elliptic leaves are 2 to 6 inches long and have large axillary tufts of brown hairs on the under side. The umbels of small yellow flowers are followed by oblong scarlet fruits. Native to Japan.

For previous introduction see No. 56024.

82470 to 82488—Continued.

82477. FORSYTHIA KOREANA Nakai. Oleaceae.

From Keijo. While a place of publication or a description for this name has not been found, the forsythias are hardy ornamental shrubs with yellow flowers much used in ornamental plantings, and the addition of another form is desirable.

82478. FRAXINUS CHINENSIS RHYNCHOPHYLLA (Hance) Hemsl. Oleaceae. Ash.

From Junten. A rather small ash, native to China, 40 feet or less in height, with dark-green leaves, lighter beneath, consisting of five to seven narrowly oblong, irregularly toothed leaflets 2 to 5 inches long.

For previous introduction see No. 66258.

82479. FRAXINUS MANDSHURICA Rupr. Oleaceae. Manchurian ash.

From Inritsu. A handsome ash, often 100 feet high, native to Japan and the adjacent parts of the Asiatic mainland. The leaves are up to 15 inches long, with dull-green bristly leaflets. The tree is said to be susceptible to late spring frosts.

For previous introduction see No. 71390.

82480 to 82488. LESPEDEZA spp. Fabaceae.

From Keijo.

82480. LESPEDEZA BICOLOR Turcz. Shrub bushclover.

A bushy, herbaceous perennial, native to Japan, which bears a profusion of rosy purple flowers, during the early autumn, practically covering the drooping branches which sometimes become 6 feet in length.

For previous introduction see No. 69812.

82481. LESPEDEZA FORMOSA (Vogel) Koehne. Purple bushclover.

Received as *Lespedeza japonica intermedia*, which appears to be a form of *L. formosa*. *L. japonica intermedia* was originally described as an erect semishrubby plant, 6 to 12 feet high, with trifoliolate leaves of oblong leaflets and racemes of rosy purple flowers. Native to Chosen.

82482. LESPEDEZA MAXIMOWICZI C. Schneid. Bushclover.

A shrubby bushclover from Chosen, resembling *Lespedeza buergeri*, from which it differs in the structure of its calyx. The leaves are very thin, dull-green above, bright green below, and the violet flowers are arranged in loose whorls.

82483. PINUS KORAIENSIS Sieb. and Zucc. Pinaceae. Korean pine.

From Hosen. A 5-needle pine, up to 100 feet high, native to Japan. It produces valuable lumber and edible seeds and is also of ornamental value, being slow in growth and forming a dense broad pyramidal head with handsome foliage.

For previous introduction see No. 75680.

82484. PINUS TABULAEFORMIS Carr. (*P. leucosperma* Maxim.). Pinaceae. Chinese pine.

82470 to 82488—Continued.

From Mozan. A pine up to 75 feet high, with dark-gray bark on the trunk, red on the branches, and orange or grayish-yellow branchlets. The glaucescent leaves, usually two in a cluster, are stout and 3 to 6 inches long, and the ovoid cones, 2 to 4 inches long, are pale tawny yellow, changing to dark brown and persisting for several years.

For previous introduction see No. 78405.

82485. RHODODENDRON SCHLIPPENBACHII Maxim. Ericaceae. Royal azalea.

For previous introduction and description see No. 82163.

82486. SYRINGA OBLATA DILATATA (Nakai) Rehder. Oleaceae. Lilac.

From Heizan. A loosely branched shrub up to 12 feet high, with ovate, long-pointed leaves 6 inches long, and loose clusters of pale, purple-lilac flowers. Native to Chosen.

For previous introduction see No. 78412.

82487. ULMUS PARVIFOLIA Jacq. Ulmaceae. Leatherleaf elm.

From Keijo. Received as *Ulmus steboldii koreana*, which is a form of *U. parvifolia*, said to differ from the usual form in having deciduous rather than half-evergreen leaves, persistent deeply fissured bark, and larger fruits. Native to Chosen.

82488. ZELKOVA SERRATA (Thunb.) Makino (*Z. acuminata* Planch.). Ulmaceae. Sawleaf zelkova.

For previous introduction and description see No. 82353.

82489 to 82495. DIOSPYROS spp. Diospyraceae.

From Koka, island of Kokato, Chosen. Scions collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

82489 to 82494. DIOSPYROS KAKI L. f. Kaki persimmon.

82489. No. 1724. November 10, 1929. *Shushi*. From a tree about 30 or 40 years old, producing round, somewhat-flattened fruits about 2 inches in diameter. Said to be an astringent and seedless variety and is used rather commonly for drying.

82490. No. 1725. November 10, 1929. *Panyori* or *Panshi*. A flat variety 2 to 3 inches across and over 1 inch deep. This variety is rather abundant, and the fresh fruits are extensively used on the island. At one time they were used for drying.

82491. No. 1726. November 10, 1929. *Koka*. A large flat persimmon somewhat larger than the *Panyori* [No. 82490], but not so thick and not so extensively grown, though the fruits are very good; they are non-astringent and seedless.

82492. No. 1727. November 10, 1929. *Tizon*. A good-sized flat variety, grown only for local use.

82493. No. 1728. November 10, 1929. *Choshi*. An extensively grown variety producing seedless, astringent

82489 to 82495—Continued.

fruits which are somewhat longer pointed than those of No. 1729 [No. 82494].

82494. No. 1729. November 10, 1929. *Choshi*. A medium-long pointed and round variety. While not the largest, it is one of the best.

82495. DIOSPIROS LOTUS L. Dateplum.

No. 1730. November 10, 1929. From water sprouts from an old kaki tree.

82496. EUONYMUS SP. Celastraceae.

From Chosen. Plant collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

No. 1742. From the mountain adjacent to the boat landing at Kokan, island of Kokato, November 11, 1929. The dwarf habit of this *Euonymus* may be due to adverse conditions on the mountains, combined with annual cutting back. The husk of the fruit is pink and the berries are red.

82497 to 82503. PHASEOLUS spp. Fabaceae.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 23, 1929.

82497 to 82501. PHASEOLUS ANGULARIS (Willd.) W. F. Wight. Adzuki bean.

82497. No. 1267. From Kokato, November 11, 1929. *Chapa*. A medium-small olive-and-black marbled variety, used, after grinding, for cattle feed.

82498. No. 1268. From Kokato, November 11, 1929. *Chapa*. A medium-small greenish-yellow variety.

82499. No. 1798. From the Chosen grain market, Keijo, November 21, 1929. *Jappa*. A mixed sample of varieties which are coarsely ground and used as cattle feed.

82500. No. 2001. From the Chosen grain market, Keijo, November 21, 1929. *Kepipa*. A medium-large gray-and-black variety, coarsely ground and used as cattle feed.

82501. No. 2017. From the Chosen grain market, Keijo, November 21, 1929. A medium-sized red-and-white variety, used, when ground, for cattle feed.

82502. PHASEOLUS AUREUS Roxb. Mung bean.

No. 1921. From the Chosen grain store, Heijo, November 18, 1929. *Rokuto*. A medium-sized glossy green variety with a white hilum; used for sprouts.

82503. PHASEOLUS VULGARIS L. Common bean.

No. 1276. *Kotebo*. A small white bean from Shariin, November 14, 1929; originally grown in the Kanto section, northeastern Manchuria.

82504 and 82505.

From Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

82504 and 82505—Continued.**82504. QUERCUS sp. Fagaceae.**

No. 1545. Between Onohara and Kuraya, October 18, 1929.

82505. QUERCUS sp. Fagaceae.

No. 1546. From Kagemori, October 18, 1929. From an evergreen tree, 30 feet or more high.

82506 to 82508.

From Keijo, Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 9, 1929.

82506. CELASTRUS ARTICULATUS Thunb. Celastraceae. Bittersweet.

No. 1561. October 27, 1929. A fine specimen with corky or winged branches which showed most beautiful fall coloration.

82507. CELASTRUS ARTICULATUS Thunb. Celastraceae. Bittersweet.

No. 1555. A vine growing to the top of a tree about 20 feet high, in the grounds of the Chosen Hotel. The yellow husks of the fruit open and persist, showing the red fruit.

82508. EUONYMUS ALATUS (Thunb.) Rupr. Celastraceae. Winged euonymus.

No. 1560. October 27, 1929. A species with corky or winged branches.

For previous introduction see No. 81642.

82509 to 82598. SOJA MAX (L.) Piper (Glycine hispida Maxim.). Fabaceae. Soybean.

From Chosen. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 23, 1929.

82509 to 82511. Obtained near Shariin, November 13, 1929.

82509. No. 1269. *Hinkon*. A variety with medium-sized glossy yellow seeds with a pale hilum; used for miso, soy sauce, and tofu.

82510. No. 1270. *Pokon*. A variety with brown, medium-sized, much flattened seeds, very much the color and shape of the Virginia variety. The plants are somewhat slender and 36 to 42 inches high. It is commonly called the cow or ox bean.

82511. No. 1272. Selected out of the Hinkon variety. The seeds are greenish yellow, more or less mottled with brown, and have a brown hilum. They are flattened and much like the Virginia variety in shape. Used when boiled for cattle feed.

82512 to 82527. Heijo, November 16, 1929.

82512. No. 1277. *Chankon*. A yellow, medium-small to small variety with a pronounced brown hilum; said to be used for sprouts.

82513. No. 1278. *Chinunikon*. A medium-sized, nearly round, brown variety, said to be used for cattle feed.

82514. No. 1279. *Purunkon*. A mixture of yellow-seeded varieties ranging from medium small to medium large; said to be used for cattle feed.

82509 to 82598—Continued.

82515. No. 1280. *Chokute*. A mixture of brown-seeded varieties ranging from medium to medium large; said to be used for cattle feed.
82516. No. 1281. *Komujankon*. A medium-sized, oval, black variety, said to be used as boiled beans and in making confections.
82517. No. 1283. *Suigen*. A medium-sized to medium-large yellow variety, used for bean curd, miso, and soy sauce. The hilum varies from pale to light brown.
82518. No. 1284. A medium-sized oval variety with a pale-brown hilum; used for bean curd, miso, and soy sauce.
82519. No. 1285. *Kaijankon*. A large, oval, yellow variety with a light-brown hilum; used for bean curd, miso, and soy sauce.
82520. No. 1286. *Chankon*. A medium-sized, oblong, greenish-yellow variety, said to be used for sprouts.
82521. No. 1287. *Tatekon*. A medium-sized, oval yellow variety with a pale to light-brown hilum; said to be used for miso, soy sauce, and bean curd.
82522. No. 1288. *Iruite*. A medium-small to medium-sized oval yellow variety with a pale to light-brown hilum; used for bean curd, miso, and soy sauce.
82523. No. 1289. *Tatekon*. A mixture of medium-sized yellow varieties with the hilum from pale to dark brown; used as boiled beans and also boiled for cattle feed.
82524. No. 1290. *Chonte*. A medium-sized greenish-yellow variety with a slate-black hilum; used as boiled beans and also boiled for cattle feed.
82525. No. 1291. *Panunkon*. A mixture, evidently of hybrid origin, of medium-sized greenish-yellow seeds; used for cattle feed when boiled.
82526. No. 1292. *Purununkon*. A medium-sized oval green variety, used as boiled beans and also boiled for cattle feed.
82527. No. 1293. *Pumunkon*. A medium-sized oval greenish-yellow variety with a pale to light-brown hilum; used as boiled beans and also boiled for cattle feed.
82528. No. 1294. Near Kokaishu, November 15, 1929. *Komjankon*. A medium-large, somewhat flattened, black variety, used as boiled beans and also in making confections.
82529. No. 1295. Near Kokaishu, November 15, 1929. *Ginta Untei*. A mixture of yellow varieties, said to be used as boiled beans and also boiled for cattle feed.
- 82530 to 82533. From the Chosen farmers' market, Shariin, November, 1929.
82530. No. 1296. *Chafatekon*. A medium-sized oval yellow variety with a pale hilum; used for miso and soy sauce.
82531. No. 1297. *Sonkon*. A mixture of medium-small to small yellow varieties, used for sprouts.

82530 to 82598—Continued.

82532. No. 1298. *Otarukon*. A medium-large, oval, yellow variety with a pale to light-brown hilum; used for bean curd, miso, and soy sauce.
82533. No. 1299. *Sankon*. A mixture of medium-small, yellow, greenish-yellow, and brown varieties; used entirely when boiled for cattle feed.
82534. No. 1300. From the Chosen Kogyo Co. farm near Kokaikoshu, November 15, 1929. *Chotan*. A medium-sized, oval, glossy yellow variety, mostly exported to the main island of Hondo for making soy sauce, miso, and bean curd.
- 82535 to 82537. From the Chosen farmers' market, Shariin, November 15, 1929.
82535. No. 1751. *Chanikon*. A medium-sized oval glossy yellow variety, used for making bean curd, soy sauce, and miso.
82536. No. 1752. *Chunonkon*. A small, greenish-yellow to yellow, round variety with a pale to light-brown hilum; used for sprouts.
82537. No. 1753. *Tatteikon*. A mixed sample of yellow varieties, used as boiled beans and also in making miso and soy sauce.
82538. No. 1754. From a warehouse in Kokaikoshu, November 15, 1929. *Koshumitta*. A medium-small, nearly round, glossy yellow variety, used for miso, soy sauce, and bean curd.
82539. No. 1755. From a warehouse in Kokaikoshu, November 15, 1929. *Chotanohame*. A medium-sized, nearly round, glossy yellow variety with more or less variation in the color of the hilum; used for bean curd, soy sauce, and miso.
- 82540 to 82547. From the Chosen farmers' market, Shariin, November 15, 1929.
82540. No. 1756. *Bankon*. A medium-sized oval glossy yellow variety, used for soy sauce, bean curd, and miso.
82541. No. 1757. *Chabatekon*. A medium-sized oval glossy yellow variety, used for making miso, soy sauce, and bean curd.
82542. No. 1758. A medium-large, nearly round variety with a light-brown hilum; used for making bean curd, soy sauce, and miso.
82543. No. 1759. *Pattekon*. A mixture of medium-small, yellow, greenish-yellow, and brown varieties; used when boiled for cattle feed.
82544. No. 1760. *Chankon*. A medium-small, much flattened, yellow variety more or less mixed with greenish-yellow and brown varieties; used when boiled for cattle feed.
82545. No. 1761. *Otarukon*. A medium-large, nearly round, yellow variety with a light-brown hilum; used for bean curd, miso, and soy sauce.
82546. No. 1762. *Chonte*. A medium-sized oval glossy yellow variety with a pale hilum; used for soy sauce, miso, and bean curd.
82547. No. 1763. *Chunnonkon*. A very small, nearly round, yellow variety, used for sprouts and also boiled for cattle feed.

82509 to 82598—Continued.

82548. No. 1764. Kokaikoshu, November 16, 1929. *Chotan*. A medium-sized oval glossy yellow variety with a pale hilum; used in making miso, bean curd, and soy sauce.
82549. No. 1774. Near Ryugaku, November 17, 1929. *Chonkon*. A medium-sized green oval variety with a mixture of brown and slate-black hilums; used for food when boiled.
82550. No. 1775. Near Fusanmen, November 17, 1929. *Pakute*. A mixture of yellow-seeded varieties, used for boiled beans, soy sauce, and miso, and as cattle feed when boiled.
82551. No. 1776. Near Ryugaku, November 17, 1929. *Papute*. A medium-sized yellow oval variety with a pale hilum; used in making miso and soy sauce, and also boiled with rice.
- 82552 to 82558. From Keijo, November, 1929.
82552. No. 1790. *Hinkon*. A mixture of yellow varieties ranging from medium small to very large; used as boiled beans and also boiled for cattle feed.
82553. No. 1791. *Komujonkon*. A large, black variety, used in making soybean confections.
82554. No. 1792. *Haiyonkon*. A large, oval, yellow variety with a pale hilum; used in making miso, natto, soy sauce, and bean curd.
82555. No. 1796. *Chanpakute*. A medium-sized oval glossy yellow variety with a pale hilum; used in the manufacture of bean curd, soy sauce, natto, and miso.
82556. No. 1797. *Futte*. A medium-sized, somewhat flattened black variety, used in making soybean confections, especially candied beans.
82557. No. 1799. *Kirgunte*. A medium-small, nearly round green variety with a light-brown hilum; used for sprouts.
82558. No. 1800. *Somokute*. A medium-small round black variety, used in making soybean confections.
- 82559 to 82578. From Heijo, November, 1929.
82559. No. 1901. *Kirupakute*. A mixed sample of yellow varieties varying in size and shape and in the color of the hilum; used for miso and soy sauce, and also boiled for cattle feed.
82560. No. 1902. *Pakute*. A mixture of yellow and greenish-yellow varieties; used for miso and soy sauce, and also boiled for cattle feed.
82561. No. 1903. *Shote*. A medium-small, nearly round, yellow variety with a light-brown hilum; used for sprouts.
82562. No. 1904. *Irukon*. A medium-sized oval yellow variety with a pale hilum, somewhat similar to *Chotan*. Used for miso, soy sauce, and tofu (bean curd).
82563. No. 1905. *Chikamunkon*. A medium-small green variety with a brown hilum; used for sprouts.

82509 to 82598—Continued.

82564. No. 1906. *Kirumukon*. A mixed sample of yellow-seeded varieties; used for miso and soy sauce, and also boiled for cattle feed.
82565. No. 1907. *Purunkon*. A medium-sized greenish-yellow variety with a pale hilum, resembling the Tokio [No. 17267]; used for cattle feed.
82566. No. 1908. *Purukunkon*. A medium-sized oval green variety with a white hilum; used as boiled beans and also boiled for cattle feed.
82567. No. 1909. *Namuri*. A medium-small greenish-yellow variety with variations in the color of the hilum; used for cattle feed when boiled.
82568. No. 1910. *Purute*. A medium-large seal-brown variety, used as boiled beans for cattle feed.
82569. No. 1911. *Kon*. A medium-small yellow variety with a brown hilum; used for boiled beans and also boiled for cattle feed.
82570. No. 1912. *Fukuto*. A medium-large brown variety, used for cattle feed when boiled.
82571. No. 1913. *Namute*. A medium-sized greenish-yellow variety with a brown hilum; used as boiled beans and also for sprouts.
82572. No. 1914. *Hinkon*. A medium-sized yellow variety with a pale hilum; used as boiled beans and also boiled for cattle feed.
82573. No. 1915. *Pankute*. A medium-large, nearly round, yellow variety with a light-brown hilum; used for bean curd, miso, and soy sauce.
82574. No. 1916. *Chosenkon*. A sample of mixed yellow beans of medium-large size and with variations in the color of the hilum; used as boiled beans and also for miso, soy sauce, and bean curd.
82575. No. 1917. *Pakukon*. A mixed sample of yellow varieties varying in the size and shape of the seeds and in the color of the hilum; used for miso, soy sauce, and bean curd.
82576. No. 1918. *Urukun*. A mixed sample of yellow varieties varying from medium small to medium sized; used when boiled for cattle feed.
82577. No. 1919. *Kirukon*. A medium-sized brown variety with a small mixture of yellow beans; used when boiled for cattle feed.
82578. No. 1920. *Pakute*. A medium-sized yellow variety varying in the color of the hilum; used as boiled beans and also in making miso and soy sauce.
- 82579 to 82598. From Keijo, November, 1929.
82579. No. 1922. *Komujonkon*. A medium-sized black variety, used in making soybean confections.
82580. No. 2002. *Hinkon*. A medium-sized oval yellow variety with a pale hilum and a slight mixture of beans with brown hilums; used in making natto, bean curd, soy sauce, and miso.

82509 to 82598—Continued.

82581. No. 2003. *Chontekon*. A medium-large, nearly round, green variety with a light slate-black hilum; used as boiled beans.
82582. No. 2004. *Komujankon*. A medium-sized, somewhat flattened black variety, used in making soybean confections, especially candied beans.
82583. No. 2005. *Oriarukon*. A medium-sized greenish-yellow variety with a black hilum; used when boiled as cattle feed.
82584. No. 2006. *Kirugunte*. A medium-small, nearly round, yellow variety with a brown hilum; used for sprouts.
82585. No. 2008. *Pakute*. A mixed sample of yellow seeds varying from medium to very large; used in making miso and soy sauce, and boiled as cattle feed.
82586. No. 2009. *Purunkon*. A medium-sized green variety with a light-brown hilum; used as boiled beans.
82587. No. 2010. *Kirugunkon*. A very small, nearly round, yellow variety with a pale hilum; used for bean sprouts.
82588. No. 2011. *Kabei*. A medium-sized oval glossy yellow variety with a brown hilum; especially good in making a high grade of natto, and also used for soy sauce and bean curd.
82589. No. 2012. *Kirugunte*. A very small round yellow variety with a pale hilum; used for sprouts.
82590. No. 2013. *Tetsukon*. A medium-large, yellowish-brown, slightly flattened variety, used as cattle feed when boiled.
82591. No. 2014. *Papute*. A large nearly round, yellow variety with a

82509 to 82598—Continued.

- pale hilum; used in making miso and soy sauce, and also boiled for cattle feed.
82592. No. 2016. *Funkon*. A medium to medium-large oval yellow variety with a pale hilum, and a slight mixture of beans with a brown hilum; used as boiled beans and also as cattle feed.
82593. No. 2018. *Futti*. A medium to medium-large black variety, used in making soybean confections, especially candied beans.
82594. No. 2019. *Chonte*. A medium-large, green, nearly round variety with a green germ; used as boiled beans.
82595. No. 2020. *Chimnikon*. A medium-sized oval glossy yellow variety with the color of the hilum varying from pale brown to a darker brown; used in making bean curd, soy sauce, and natto.
82596. No. 2021. *Ajukarukon*. A medium-sized, slightly flattened black and white variety, used in making soybean confections.
82597. No. 2022. *Chonte*. A medium-large oval green variety with a brown hilum; used as boiled beans.
82598. No. 2023. *Kirugunte*. A mixed sample of small, nearly round, yellow varieties with variations in the color of the hilum from pale to black or brown; used for sprouts.
82599. VIGNA SINENSIS (Torner) Savi.
Fabaceae. Cowpea.
- From Chosen, Japan. Seeds collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Received December 23, 1929.
- No. 2007. Obtained in the Chosen grain market at Keijo, November 21, 1929. *Tonfu*. An edible variety with medium-small white seeds with a brown eye.

INDEX OF COMMON AND SCIENTIFIC NAMES

- Abies holophylla*, 82470.
Acanthopanax sp., 81639.
sessiliflorum, 82061.
Acer spp., 81640, 82062.
diabolicum, 81726.
pseudo-sieboldianum, 82471.
triflorum, 82472.
Aconitum yezoense, 81634, 81641.
Actaea spicata, 81947.
Adonia merrillii, 81851.
Aeschynomene indica, 82102, 82103.
 Alder. See *Alnus hirsuta sibirica*.
 Alfalfa. See *Medicago sativa*.
Allagoptera caudescens, 81946.
Allium atropurpureum, 82009, 82384.
azureum, 82385.
beesianum, 82010.
cepa, 81679, 81932-81934.
cyaneum, 82386.
flacum, 82011.
giganteum, 82387.
glaucum, 82388.
kansuense, 82012.
karataviense, 82013.
moly, 82014.
multibulosum, 82015.
narcissiflorum, 82016, 82389.
ostrowskianum, 82017, 82390.
pendulinum, 82391.
rosenbachianum, 82392.
schubertii, 82393.
stipitatum, 82394.
triquetrum, 82018.
 Almond. See *Amygdalus communis*.
Alnus hirsuta sibirica, 82473.
Amelanchier alnifolia, 81713.
Amygdalus communis, 82059, 82060.
persica, 82035-82037, 82413-82418.
Andropogon ischaemum, 81810.
Anigozanthos mangilesti, 81671.
Annona reticulata, 81844.
 Apple. See *Malus sylvestris*.
 Apricot. See *Prunus armeniaca*.
Arecastrum romanzoffianum, 81687.
Arundinaria hindsi, 81725.
 Ash. See *Fraxinus* spp.
 Manchurian. See *F. mandshurica*.
Astragalus sinicus, 81727.
Avena sativa, 81728-81730.
 Avocado. See *Persea americana*.
 Azalea. See *Rhododendron* spp.
 royal. See *R. schlippenbachii*.
 Bamboo. See *Phyllostachys* spp.
 ramrod. See *Arundinaria hindsi*.
 Baneberry, black. See *Actaea spicata*.
 Barberry. See *Berberis* spp.
 Barley. See *Hordeum* spp.
 Bean, adsuki. See *Phaseolus angularis*.
 common. See *P. vulgaris*.
 mung. See *P. aureus*.
 rice. See *P. calcaratus*.
Berberis spp., 82063, 82064.
Betula davurica, 82474.
 japonica, 82065, 82066.
 Birch. See *Betula davurica*.
 Bittersweet. See *Celastrus articulatus*.
 Blackberry, dwarf red. See *Rubus triflorus*.
Brachypodium sylvaticum, 81811.
Bromelia pinguin, 82408.
 Buckthorn. See *Rhamnus* spp.
 Buckyheat. See *Fagopyrum esculentum*.
 Buffaloberry, russet. See *Lepargyrea canadensis*.
 Bushclover. See *Lespedeza* spp.
 purple. See *L. formosa*.
 shrub. See *L. bicolor*.
Butia capitata, 82399.
 Cape-cowslip. See *Lachenalia* spp.
Capparis micracantha, 81928.
Cassia sp., 82067.
Castanea sativa, 81812.
Castanopsis sp., 82032.
 argyrophylla, 81675.
Ceiba aesculifolia, 82409.
Celastrus articulatus, 81735, 82402, 82422, 82506, 82507.
 Cereus, nightblooming. See *Hylocereus* sp.
Chaetochloa italica, 81813.
 Cherry. See *Prunus* spp.
 pin. See *P. pennsylvanica*.
 sand. See *P. pumila*.
 Chestnut, Spanish. See *Castanea sativa*.
 Chinquapin, evergreen. See *Castanopsis* spp.
 Chokecherry, common. See *Prunus virginiana*.
Chrysanthemum maximum, 81826-81828, 82022, 82023, 82053-82055.
 morifolium, 82419.
 Chrysanthemum, mulberry. See *Chrysanthemum morifolium*.
 Pyrenees. See *C. maximum*.
Chrysophyllum fulcum, 81638.
Cinnamomum mindanaense, 81854.
Citrullus vulgaris, 81624-81627.
Citrus sp., 81819.
 decumana. See *C. grandis*.
 grandis, 81680.
 miraray, 81995.
Clematis sp., 82068.
 chrysocoma, 82359.
 fargesii, 82360.
 heracleaefolia, 82021.
 montana, 82361-82363.
 montana lilacina, 82364.
 montana wilsonii, 82365.
Clematis, anemone. See *C. montana*.
 tube. See *C. heracleaefolia*.
Clematoclethra integrifolia, 82366.
Clerodendrum foetidum, 82069.
Clintonia udensis, 81948.
 Clover. See *Trifolium* spp.
 red. See *T. pratense*.
 white. See *T. repens*.
Cocculus trilobus, 82420.
Cocos capitata. See *Butia capitata*.
 romanzoffiana. See *Arecastrum romanzoffianum*.
 Corktree. See *Phellodendron* sp.
 Corn. See *Zea mays*.
 Cornelian-cherry. See *Cornus officinalis*.
Cornus coreana, 82070, 82071, 82475.
 officinalis, 82476.
 Cotton. See *Gossypium* spp.
 upland. See *G. hirsutum*.
 Cowpea. See *Vigna sinensis*.
 Cranesbill, Iberian. See *Geranium ibericum*.
Crataegus spp., 82073-82401.
 coccinea, 81714.
 sanguinea, 81731, 82072.
Crotalaria sp., 82074.
Cucumis melo, 81628, 81629, 81865-81883.
 Currant, fetid. See *Ribes glandulosum*.
 swamp red. See *R. triste*.
 winterberry. See *R. fasciculatum*.

- Dadap. See *Erythrina variegata orientalis*.
Danthonia semiannularis, 81942.
Daphne alpina, 81829.
caucasica, 81830.
Daphne, alpine. See *Daphne alpina*.
Caucasian. See *Daphne caucasica*.
Dateplum. See *Diospyros lotus*.
Daylily. See *Hemerocallis* sp.
Delphinium consolida, 81884.
orientale, 81885.
pylajovi, 81886.
Desmodium podocarpum. See *Meibomia japonica*.
Diervilla sp., 81732.
Dioscorea sp., 82076.
septemloba, 82468.
Diospyros spp., 81686, 82033.
kaki, 82410-82412, 82489-82494.
lotus, 82077, 82421, 82495.
Dipelta ventricosa, 81848.
Diplothemium caudescens. See *Allagoptera caudescens*.
Disporum sessile, 81949.
Dogwood. See *Cornus coreana*.
Dolicholus phaseoloides, 81922.
- Ehrharta calycina*, 81943.
Elder. See *Sambucus* spp.
Elm, leatherleaf. See *Ulmus parvifolia*.
Japanese. See *Ulmus japonica*.
Erica scoparia, 81999.
Erythrina lithosperma. See *E. variegata orientalis*.
variegata orientalis, 81923.
Escallonia sp., 82367.
Euchlaena mexicana × *Zea mays*, 81814.
Eugenia floribunda. See *Myrciaria floribunda*.
Euonymus spp., 81733-81734, 81736, 82423, 82424, 82496.
alatus, 81642, 82508.
Euonymus, winged. See *E. alatus*.
- Fagara aillanthoides*, 82078.
Fagopyrum esculentum, 81737, 81738, 82079, 82080, 82425-82427.
Falcata japonica, 81643, 82081.
Fairybells. See *Disporum sessile*.
Ficus altissima, 82398.
carica, 81676-81678.
religiosa, 81823.
Fig, loffy. See *Ficus altissima*.
Fir, needle. See *Abies holophylla*.
Flacourtia cataphracta. See *F. jangomas*.
jangomas, 81688.
Flax. See *Linum usitatissimum*.
Forsythia sp., 82082.
koreana, 82477.
Fragaria spp., 81739, 81887.
canadensis, 81716.
hagenbachiana, 82406.
vesca, 81715.
Fraginus sp., 82428.
chinensis rhynchophylla, 82478.
mandshurica, 82479.
Fritillaria camschatcensis, 81852.
- Garcinia dives*, 81925.
mangostana, 81935.
Geranium ibericum, 81820.
Gleditsia horrida, 82083.
Glycine hispida. See *Soja max.*
Gossypium spp., 82000-82007.
herbaceum, 81834-81839.
hirsutum, 81840, 81841.
nanking, 82084, 82429, 82430.
Grape. See *Vitis* spp.
European. See *V. vinifera*.
riverbank. See *V. vulpina*.
Grapefruit. See *Citrus grandis*.
Grass, perennial veldt. See *Ehrharta calycina*.
See also *Brachypodium sylvaticum*, *Danthonia semiannularis*, and *Lolium lolaceum*.
Grewia parviflora, 82356.
Guava. See *Psidium guajava*.
Guava berry. See *Myrciaria floribunda*.
- Hawthorn. See *Crataegus* spp.
thicket. See *C. coccinea*.
Hedeoma piperita, 81855.
Helenium autumnale, 82024-82026, 82048-82051, 82056-82058.
bigelovii, 82027.
Hemerocallis spp., 82052, 82431.
Honeylocust, Japanese. See *Gleditsia horrida*.
Honeysuckle. See *Lonicera* sp.
Hordeum distichon palmella, 81740.
vulgare pallidum, 81741, 82085-82087.
Hylocereus sp., 81941.
- Indigo. See *Indigofera* sp.
Indigofera sp., 82088.
Ipomoea macalusoii, 81998.
Iris graminea, 81821.
Iris, grass. See *Iris graminea*.
- Jamberry. See *Rubus* sp., 81662.
Jasmine. See *Jasminum* spp.
rosy. See *J. beesianum*.
Jasminum beesianum, 82368.
giraldii, 82369.
heterophyllum, 82370, 82371.
Juglans formosana, 81833.
Juniper, needle. See *Juniperus rigida*.
Juniperus rigida, 82089.
- Kami. See *Cinnamomum mindanaense*.
Kniphofia gracilis, 81974-81977.
hybrida, 81978-81981.
- Lachenalia orchitoides*, 81846, 81983.
pustulata, 81847, 81984.
Larkspur. See *Delphinium* spp.
field. See *D. consolida*.
Lathyrus sp., 81888.
magellanicus, 81918, 81919.
nervosus, 81920.
- Leek, lily. See *Allium moly*.
Lepargyrea canadensis, 81717.
Lespedeza spp., 81644, 82090-82101, 82432-82438.
bicolor, 82480.
formosa, 82481.
maimowitzi, 82482.
stipulacea, 82075.
strata, 81742.
Leucojum autumnale, 82019.
- Lilac. See *Syringa* spp.
Lilium spp., 81623, 81967-81970.
cordifolium, 81665, 81966.
dauricum, 81666.
glehni. See *L. cordifolium*.
Lily. See *Lilium* spp.
black. See *Fritillaria camschatcensis*.
candlestick. See *Lilium dauricum*.
Linum usitatissimum, 81743, 81744.
Lolium lolaceum, 81944.
subulatum. See *L. lolaceum*.
Lonicera spp., 81889, 81890.
Lupine, European blue. See *Lupinus hirsutus*.
Lupinus hirsutus, 81945.
- Malus sylvestris*, 81853, 81915-81917, 82400.
Mangifera indica, 81663, 81664, 81681-81685, 81937.
Mango. See *Mangifera indica*.
Mangosteen. See *Garcinia mangostana*.
Maple. See *Acer* spp.
devil. See *A. diabolicum*.
Martinezia corallina, 81929.
Medicago sativa, 81815, 81816, 81831, 82404, 82405.
Meibomia japonica, 81645, 81745, 82104.
Mentha arvensis piperascens, 81646.
Melon. See *Cucumis melo*.
Milkwetch. See *Astragalus sinicus*.
Millet. See *Chaetochloa italica*.
Mint, Japanese. See *Mentha arvensis piperascens*.
Monkshood. See *Aconitum yezoense*.
Moraea spathacea. See *M. spathulata*.
spathulata, 81822.

- Morning-glory. See *Ipomoea macaluso*.
 Mountain-ash. See *Sorbus alnifolia*.
 edible. See *S. aucuparia edulis*.
Mucuna sempervirens. See *Stizolobium*
sempervirens.
Myrciaria floribunda, 81690, 81691.
- Nasturtium. See *Tropaeolum tuberosum*.
Neillia longiracemosa, 82372.
ribeoides, 82373.
thibetica, 82374.
- Normanbya merrilli*. See *Adonidia merrilli*.
Nothopanax davidi, 82375.
Nothoscordum fragrans, 82395.
- Oak. See *Quercus* spp.
 cork. See *Q. suber*.
 Oats. See *Avena sativa*.
 Okari nut. See *Terminalia kaernbachii*.
 Onion. See *Allium* spp.
Ophiopogon sp., 82105.
Oryza sativa, 81746-81748.
Osmanthus armatus, 82376.
serrulatus, 82377.
Oxalis tuberosa, 81673.
Oxytropis pilosa, 81818.
- Paeonia* spp., 81647, 81648.
moutan. See *P. suffruticosa*.
suffruticosa, 82106, 82107.
- Palm, Jamaica thatch. See *Thrinax parviflora*.
 See also *Adonidia merrilli*, *Allagoptera caudescens*, *Arecastrum romanzoffianum*, *Butia capitata*, *Martinezia corallina*, and *Pinanga kuhlii*.
- Panax repens*, 81898, 81950.
Pandanus affinis, 81938.
atrocarpus, 81939.
parvus, 81724.
vandermeeschii, 81940.
- Panicum*. See *Flacourtia jangomas*.
 Pea. See *Pisum sativum*.
 Anson. See *Lathyrus nervosus*.
 Lord Anson. See *L. magellanicus*.
- Peach. See *Amygdalus persica*.
 Pear. See *Pyrus fauriei*.
 Peony. See *Paeonia* spp.
 tree. See *P. suffruticosa*.
Persea americana, 81842, 81843.
gratissima. See *P. americana*.
- Persimmon. See *Diospyros* sp.
 kaki. See *D. kaki*.
- Phaseolus angularis*, 81749-81753, 82108-82133, 82497-82501.
aureus, 82134-82145, 82502.
calcaratus, 82146-82150.
vulgaris, 82151, 82152, 82503.
- Phellodendron* sp., 81649.
Phyllostachys sp., 82047.
puberula, 82153.
- Picrasma quassioides*, 81891, 81892.
Pinanga kuhlii, 81689.
 Pine, Chinese. See *Pinus tabulaeformis*.
 Korean. See *P. koraiensis*.
Pinus koraiensis, 82483.
tabulaeformis, 82484.
- Pistacia vera*.
Pistacia vera, 81630, 81631, 81856, 82028-82031, 82407.
Pisum sativum, 81754-81758, 82154, 82155, 82439.
- Pithecolobium quaremontemo*, 81921.
clypearia, 81635.
hymenaeae-folium, 81636.
- Polygonatum japonicum*, 81951.
 Poplar. See *Populus generosa*.
Populus generosa, 81850.
 Prickly-ash, Japanese. See *Zanthoxylum piperitum*.
Prunus sp., 81759.
amygdalus. See *Amygdalus communis*.
armeniaca, 81632, 81633, 81824, 81825, 82038-82046, 82156.
pennsylvanica, 81718-81720.
persica. See *Amygdalus persica*.
- Prunus*—Continued.
pumila, 81721.
virginiana, 81722, 81723.
Psidium guajava, 81849.
Pterocarpus sericeus, 81620.
Pueraria thumbergiana, 82157.
Pyrus alnifolia. See *Sorbus alnifolia*.
fauriei, 82158, 82159.
malus. See *Malus sylvestris*.
- Quercus* spp., 82034, 82504, 82505.
phillyraeoides, 82008.
suber, 82397.
- Radish. See *Raphanus sativus*.
Raphanus sativus, 81760.
- Raspberry. See *Rubus* sp.
 common red. See *R. idaeus strigosus*.
Rhamnus spp., 82160, 82440.
japonica, 81650.
Rhododendron spp., 81661, 82165-82175, 82441-82443.
dauricum mucronulatum, 82161, 82162.
schlippenbachii, 82163, 82164, 82485.
- Rhododendron*, Korean. See *R. dauricum mucronulatum*.
Rhynchosia phaseoloides. See *Dolicholus phaseoloides*.
Ribes spp., 81952, 82444.
fasciculatum, 82176, 82177.
glandulosum, 81700-81702.
oxyacanthoides, 81693-81699.
prostratum. See *R. glandulosum*.
triste, 81692.
- Rice. See *Oryza sativa*.
Ricinodendron rautanenii, 81845.
Rosa spp., 82178-82180, 82445.
rubra, 81989.
- Rosarybean. See *Dolicholus phaseoloides*.
Roscoea cauleoides, 81985, 81986.
humeana, 81987.
purpurea, 82396.
- Rose. See *Rosa* spp.
Rubus spp., 81651, 81662, 81893, 81894, 81953, 82181.
idaeus strigosus, 81704-81710.
triflorus, 81703.
- Saccharum officinarum*, 81857-81864.
 Sacred bo tree. See *Ficus religiosa*.
Salix sp., 81971.
Sambucus sp., 81897.
latipinna, 81895.
sieboldiana xanthocarpa, 81896.
- Sandoricum koetjape*, 81926.
 Santol. See *Sandoricum koetjape*.
 Saskatoon. See *Amelanchier alnifolia*.
 Screw pine. See *Pandanus* spp.
Schizandra chinensis, 81652, 81653.
Securidaca longipedunculata, 81982.
Setaria italica. See *Chaetochloa italica*.
Skimmia japonica, 81954.
 Skimmia, Japanese. See *Skimmia japonica*.
 Snakebeard. See *Ophiopogon* sp.
 Snailseed, Japanese. See *Cocculus trilobus*.
 Sneezeweed. See *Helenium autumnale*.
 Bigelow. See *H. bigelovii*.
 Snowbell, Japanese. See *Styrax japonicum*.
 Snowflake. See *Leucocium autumnale*.
- Soja max*, 81654, 81687, 81761-81786, 81899, 81955, 82182-82330, 82403, 82509-82598.
Solanum bullatum, 81988.
 Solomonsal. See *Polygonatum japonicum*.
Sophora sp., 82331.
Sorbus alnifolia, 82332, 82333.
aucuparia edulis, 81712.
Sorghum vulgare, 82334-82340.
 Soybean. See *Soja max*.
Spiraea salicifolia, 82341.
 Spirea, willowleaf. See *Spiraea salicifolia*.
Sternbergia macrantha, 82020.
Stewartia pseudo-camellia, 81787.
 Stewartia, Japanese. See *Stewartia pseudo-camellia*.
Stizolobium sempervirens, 81997.

- Strawberry. See *Fragaria* spp.
 alpine. See *F. vesca*.
 northern wild. See *F. canadensis*.
- Styloaanthus erecta*, 81936.
Styraa japonicum, 82378.
- Sugar-apple. See *Annona reticulata*.
 Sugarcane. See *Saccharum officinarum*.
- Syringa* spp., 81972, 81973, 82342.
oblata dilatata, 82486.
prestoniae, 81990-81994.
- Teosinte-maize hybrid. See *Euchlaena mexicana* × *Zea mays*.
- Terminalia bentzoe*, 81808.
brownii, 81672.
kaernbachii, 81924.
sericea, 81809.
- Thrinax parviflora*, 81930.
- Torchlily. See *Kniphofia* spp.
- Trifolium* spp., 81817, 81962, 81963.
pratense, 81655, 81656, 81668, 81788,
 81832, 81900-81906, 81956-81961,
 82343-82345, 82446.
repens, 81789.
- Triticum aestivum*, 81790-81793, 82447,
 82448-82467, 82469.
vulgare. See *T. aestivum*.
- Tropaeolum tuberosum*, 81674.
- Ulmus japonica*, 81907.
parvifolia, 82487.
- Undetermined, 81669, 81914, 81931, 81996.
 82354, 82355, 82357, 82358.
- Uvaria* sp., 81670.
rufa, 81927.
- Vaccinium* spp., 81657, 81909.
ciliatum, 81794, 81795.
hirtum smallii, 81908.
japonicum, 81796.
praestans, 81797.
- Velvetbean. See *Stizolobium sempervirens*.
- Vetch. See *Vicia* spp.
 common. See *V. sativa*.
 cow. See *V. cracca*.
- Viburnum* spp., 81798-81801, 81910, 82346.
bitchiense, 82379.
cylindricum, 82380.
fragrans, 82381.
propinquum, 82382.
utile, 82383.
- Viburnum*, service. See *Viburnum utile*.
 Yeddo. See *V. bitchiense*.
- Vicia* spp., 81659, 81802, 81803, 81912,
 81913, 81964, 81965.
cracca, 81658.
sativa, 81911.
- Vigna sinensis*, 81804, 81805, 82347-82351,
 82599.
- Violet tree, Rhodesia. See *Securidaca longipedunculata*.
- Vitis* spp., 81660, 82352.
vinifera, 81621, 81622, 81637.
vulpina, 81711.
- Watermelon. See *Citrullus vulgaris*.
- Wheat, common. See *Triticum aestivum*.
- Willow. See *Salix* sp.
- Yam. See *Dioscorea* spp.
- Zanthoxylum piperitum*, 81806.
Zea mays, 81807.
 Zelkova, sawleaf. See *Zelkova serrata*.
Zelkova serrata, 82353, 82488.