INTRODUCTORY STATEMENT

The present inventory, recording the materials arriving between July 1 and September 30, 1931, inclusive (Nos. 93749–94282), differs from former inventories in that most of its records concern gifts and exchanges from private individuals and institutions rather than the results of exploration conducted independently by the division, which is most conspicuously represented by the collection of soybeans (Nos. 94158–94173) collected by Dorsett and Morse.

Among the many gifts are the large collections of seeds from the last Forrest expedition, generously presented by Maj. Lionel de Rothschild (Nos. 93871–93970, 93991–94063, 94100–94150) from his share in the returns of that exploration.

Interest in tropical fruits, particularly lychees, is reflected in Nos. 93971–93977, 94070–94073, and 94247–94257, which include many lychee forms collected by G. Weidman Groff at the Lingnan University, Canton, China.

Plants from Australia are well recognized with collections from C. A. Gardner, Government Botanist, Perth, Western Australia (Nos. 93780–93793), an important collection of Casuarina species, particularly needed for a Florida specialist; and from Ida W. Richardson (Nos. 93828–93845), comprising many ornamental shrubs and trees.

Famous botanic gardens are represented by seeds from Buitenzorg, Java (Nos. 94095–94098), Peradeniya, Ceylon (Nos. 94089–94094), and the Lloyd Botanic Garden, Darjeeling, India (Nos. 94075–94086), all of which contribute particular plants to complete, or to add to, various permanent collections.

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.
INVENTORY

93749. ZEA MAYS L. Poaceae. Corn.
From Mexico. Seeds presented by Emil Makrinius, Concordia, Oaxaca. Received July 1, 1931.
Indian name, Chise. Corn grown in the mountains at 10,000 feet altitude; it matures in 11 months.

93750. ULMUS FUMILA L. Ulmaceae.
Chinese elm.
From Manchuria. Seeds purchased from the Manshu Nosan Shokai (Inc.), wholesale seed growers and dealers, Dairen. Received July 1, 1931.
Collected near Mukden, Manchuria, at 250 feet altitude. Introduced for the use of experimenters in the north-central Plains area.

93751 to 93755. AVENA spp. Poaceae. Oats.
From Uruguay, South America. Seeds presented by Dr. Alberto Boerger, Director del Instituto Fitotecnico y Semillera Nacional, La Estanzuela, Department Colonial. Received July 1, 1931.
Oat varieties introduced for the use of department specialists.

93751. AVENA BYZANTINA Koch.
No. 1095-A, 1332.
93752 to 93755. AVENA SATIVA L.
93752. No. 64-Q.
93753. No. 64-R.
93754. No. 64-S, 613321.
93755. No. 64-T.

93756 to 93762. From Quibdo, Colombia. Seeds collected by W. A. Archer. Received July 2, 1931.

It should be understood that the names of varieties of fruits, vegetables, cereals, and other plants used in this inventory are those under which the material was received when introduced by the Division of Foreign Plant Introduction, and, further, that the printing of such names here does not constitute their official publication and adoption 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 identification, therefore, must necessarily often rest with the person sending the material. If there is any question regarding the correctness of the identification of any plant received from this division, herbarium specimens of leaves and flowers should be sent in so that definite identification can be made.

93756. CARICA PAPAYA L. Papayaceae.
Papaya.
Collected in May, 1931. A variety about 8 inches long and semiseedless. This type is frequently found in the region around Quibdo.

93757. CUCURBITA MOSCHATA Duchesne.
Cucurbitaceae.
Sapallo. Collected April 20, 1931, at Quibdo. A short-necked, light-green squash 9 inches long and over 5 inches in diameter with irregular cream markings on the globular body. The flesh, which has the color and odor of the Rocky Ford cantaloupe, is used in making dulces. The seeds are roasted and eaten.

93758. GUILLIELMA GASIPAES (H. B. K.) Bailey (G. speciosa Mart.). Phoenicaceae.
Pupunha.
An Amazonian palm, becoming ultimately about 60 feet high, closely allied to the pejibaye (Guillielma utile). Like the pejibaye, it furnishes food for a great number of people in regions where it is indigenous; it appears to be of promise for cultivating as a food plant throughout the Tropics in congenial situations. For previous introduction see 93359.

93759. PHYTELEPHAS MACROCARPA Ruiz and Pav. Phoenicaceae.
Ivory-nut palm.
A tall tropical American palm with a thick, rough trunk and foliage resembling that of the coconut palm. The bony fruits are used for making buttons, etc.
For previous introduction see 74505.

93760. HEDYCHIUM CORONARIUM K. o. e.n. Zinziberaceae.
Common gingerlily.
No. 1847. Heliotropo. Collected in a park at Quibdo, April 10, 1931. A tu...
93758 to 93762—Continued.

bera-rooted perennial, 1 to 2 feet high, found growing in clumps. The white flowers have the odor of jasmine.

93761. VANILLA FRAGRANS (Sallab.) Ames. Orchidaceae.


No. 2199. Nolli. A small palm which grows from 10 to 20 feet high.

93763. Litchi philippinensis Radlk. Sapindaceae.

From the Philippine Islands. Seeds presented by the Bureau of Science, Department of Agriculture and Natural Resources, Manila. Received July 7, 1931.

A Philippine relative of the lychee (Litche chinensis). The tree is about 50 feet high, with dark-green, pinnate leaves similar to those of the lychee and roundish oblong fruits about 1 inch long borne in loose terminal clusters. The tough, leatherlike shell of the fruit, which is covered with short spiny projections, incloses a scant edible seed. This seed is roasted and eaten. The tree may have value as a stock for the lychee.

For previous introduction see 93764.

93764. Euphorhia sp. Euphorbiaceae.

From Madagascar. Seeds presented by R. Decary, Ambovombe. Received July 2, 1931.

Said to be a rubber plant.

93765. Cassia abusus L. Caesalpinia-ceae.

From Africa. Seeds presented by Comm. L. Baldrati, University di Pisa, Asmara, Eritrea. Received July 2, 1931.

An erect annual tropical legume, about 2 feet high, with small red-yellow flowers. It is native to India and Egypt.

For previous introduction see 79548.


From Rumania. Seeds presented by the Samanta, Society for Seed and Plant Selections, Senad (Banat). Received July 3, 1931.

93766. Samanta 117.

93767. Samanta 1252.

93768. Lophira alata Banks. Dipterocarpaceae.

From Africa. Seeds presented by H. C. Tebbitt, Director of Forests, Ibaden, Nigeria. Received April 7, 1931.

A large tree, native to tropical Africa, with obovate, crispate-undulate, corrosive leaves 30 inches long and terminal, pyramidal panicles of creamy white flowers 1 to 2 inches across. The fruit is subtended by the calyx, one lobe of which is enlarged to 4 inches long and becomes crimson when the fruit is ripe.

For previous introduction see 93547.

93769. HYMENOCALLIS AMANCAE (Ruiz and Pav.) Nichols. Amaryllidaceae.


A tender bulbous plant about 2 feet high with large bright-yellow flowers. Native to Peru and Chile.

For previous introduction see 67993.

93770. Urceolina miniata (Herb.) Benth. and Hook. Amaryllidaceae.

From Huancayo, Peru. Bulbs presented by Paul G. Ledig, Huancayo Magnetic observatory, Department of Research in Terrestrial Magnetism of the Carnegie Institution of Washington, D. C. Received July 1, 1931.

A bulbous perennial native to the Andes of Peru and Bolivia. The solid scape, 1 foot high, bears two to six urn-shaped scarlet flowers 2 inches long, after which appear the narrowly ovate leaves 1 foot long.


From Algeria. Africa. Plants presented by Dr. R. Maire, Jardin d’Essais, Algiers. Received July 11, 1931.

A very distinct and valuable clump bamboo introduced from Cochinchina by the Jardin des Plantes, in Paris and sent to Algiers for trial; there is now a splendid avenue in the Jardin d’Essais, of Algiers.

For previous introduction see 79548.

93772 to 93774.

From La Sierra, near Medellin, Colombia. Seeds presented by W. A. Archer. Received July 13, 1931.


No. 1516. Collected in February, 1931.

93773. Solanum sp. Solanaceae.

No. 1293. A vine 6 feet long, which is either flat on the ground or climbing on trees. The yellow flowers are purplish beneath, and the small green fruits, 1 inch in diameter, grow in clusters of 20 to 30.

93774. Bomarea sp. Amaryllidaceae.


93775 to 93779.

From Chiangmai, Siam. Seeds presented by Mrs. William Harris. Received July 18, 1931.

93775 to 93777. Cassia spp. Caesalpinia-ceae.

93775. Cassia fistula L. Golden-shower.

An ornamental tree which blossoms in Siam in May. The long pendulous racemes of large bright-yellow flowers appear after the leaves.

93776. Cassia javanica L.

A tree which blooms in the hottest part of the year. The gorgeous pink or rose-colored flowers, over 2 inches across, are borne in large clusters and appear before the leaves.

For previous introduction see 67542.
CASUARINA spp. Casuarinaceae.

From Australia. Seeds presented by C. A. Gardner, Government Botanist, Perth, Western Australia. Received July 13, 1931.

CASUARINA ACUTIVALVIS Benth.

A small tree closely resembling Casuaria coriacea, with slender elongated branches arranged in fours, but the angles are very acute and two of them are more prominent than the others.

For previous introduction see 92478.

CASUARINA BAXTERIANA Miquel.

A dioecious shrub, 3 to 6 feet high, with numerous erect branches; native to Western Australia. The internodes are glaucous or shining green and striate.

CASUARINA BAXTERIANA Miquel.

A densely branched shrub with verticillate branches distinctly 7-angled to 8-angled, and with pale-green internodes up to one-fourth of an inch long.

CASUARINA CAMPESTRIS Dietr.

A dioecious shrub, 3 to 6 feet high, with numerous erect branches; native to Western Australia. The internodes are glaucous or shining green and striate.

CASUARINA CORNICULATA F. Muell.

An erect branched shrub which has internodes lined with 8 or 12 rows of deltoid-lanceolate teeth and small globose cones 1 inch long. Native to Western Australia.

CASUARINA DECUSATA Benth.

A small tree closely resembling Casuaria thutooides, with slender elongated branches arranged in fours, but the angles are very acute and two of them are more prominent than the others.

For previous introduction see 92478.

CASUARINA DRUMMONDIANA Miquel.

A bushy shrub up to 3 feet high, with rigid, divaricate branches in whorls of five. It is native to Western Australia.

CASUARINA FIBROSA Gardner.

A small, erect, densely branched shrub with nearly terete, finely striate branchlets in whorls of four to six. The cone scales are covered with coarse hairlike fibers. It is native to Western Australia.

CASUARINA FRASERIANA Miquel.

A tall erect shrub or small tree closely related to Casuarina distyla, with rigid branches and with the leaves represented by very small scales in whorls.

For previous introduction see 92479.

CASUARINA GLAUCA Hook.

A moderate-sized, deciduous tree, with long drooping branches and glossy leaves; during May it bears a profusion of beautiful bright-pink, rose-scented flowers borne in dense clusters on long stalks. The leaves and flowers appear at the same time.

For previous introduction see 87505.

CASUARINA HELMSII Ewart and Gordon.

An Australian tree 60 to 70 feet high, usually straight and of rapid growth. The timber is red, beautifully marked, hard and tough, and is used there for cabinetwork, staves, and fuel. In periods of drought the foliage is used for feeding stock. When the trees are cut down, the young growth shoots up quickly from the stump. This variety grows in the coastal districts, marshy country, and frequently in land submerged with tidal water. It makes a very handsome shade tree.

For previous introduction see 75551.

CASUARINA HUMILIS Otto and Dietr.

An erect shrub 2 to 6 feet high, with the branchlets usually in whorls of four and the angles of the internodes prominent but obtuse. It is native to Western Australia.

CASUARINA LEPIDOPHLOIA F. Muell.

A small or moderately large tree with very slender, linear, faintly angled branchlets. The cones are depressed-globose and about 1 inch in diameter. This species has hitherto been confused with C. glauca.

For previous introduction see 92483.

CASUARINA THUTOIDES Miquel.

A straggling shrub 3 to 5 feet high, with numerous spreading slender branchlets about 1 inch long arranged in whorls of four or five. The ribs on the nearly round internodes are scarcely noticeable. It is native to Western Australia.

EUPHORBIA sp. Euphorbiaceae.

From Algeria, Africa. Seeds presented by Dr. Henri Humbert, Faculte des Sciences, Laboratoire de Botanique, Algiers. Received July 13, 1931.

For previous introduction and description see 93764.
PLANT MATERIAL INTRODUCED

93795 to 93808. From China. Seeds presented by Hugh W. Hubbard. Received July 14, 1931.
A collection of commercial varieties, introduced for the use of department specialists.
93798 to 93800. CUCUMIS MELO L. Cucurbitaceae. Melon.
93808 and 93809. CUCURBITA PEPO L. Cucurbitaceae. Pumpkin.
93804 to 93808. LAGENARIA LEUCANTHA (Duchesne) Rusby (L. vulgaris Ser.) Cucurbitaceae. Calabash gourd.

93809 to 93823. From China. Seeds presented by Frank Dickinson, West China Union University, Chengtu. Received July 14, 1931.
A collection of commercial varieties, introduced for the use of department specialists.
93811. CUCUMIS SATIVUS L. Cucurbitaceae. Cucumber. A vigorous growing, large cucumber.
93814. LUFFA CYLINDRICA (L.) Roemer (L. aegyptiaca Mill.) Cucurbitaceae. Suatwa towelgourd.
93816 to 93817. PHASEOLUS VULGARIS L. Fabaceae. Common bean.
93821. SPINACIA OLERACEA L. Chenopodiaceae. Spinach.
From Habana, Cuba. Seeds presented through the Plant Quarantine Control Administration. Received July 18, 1931.
A Cuban palm, up to 80 feet high and 2 to 4 feet in diameter, with pinnately divided leaves 10 feet long.
For previous introduction see 76790.
93825. PISTACIA sp. Anacardiaceae.
From Greece. Seeds presented by G. T. Coremis, of the island of Chios, through David Fairchild, agricultural explorer, Bureau of Plant Industry. Received July 18, 1931.
Turpentine tree.
For previous introduction see 91608.

From the Union of South Africa. Plants purchased from H. E. V. Pickstone & Bro. (Ltd.), Simonstad, Cape of Good Hope. Received July 17, 1931.

93827. SPODIAS TUBEROSE A R U D A. Anacardiaceae. Imbu.
From Bahia, Brazil. Seeds presented by Reo Bennett, Empresas Electricas Brasilieras, Rio de Janeiro. Received July 17, 1931.
A native Brazilian tree which branches 4 or 6 feet from the ground into a distinct tapering stem, with flat-topped crown. The large limbs are cut and placed in the ground as fence posts they take root and grow. The fruits are oval, over an inch long, and light green in color. The skin is rather tough and incloses the translucent juicy pulp which is embedded in the single large seed. The pulp has an agreeable flavor, rather suggestive of a sweet orange. This fruit is used fresh, as well as being made into jams and jellies.
For previous introduction see 37861.

93828 to 93845. From Perth, Western Australia. Seeds presented by Ida W. Richardson. Received July 18, 1931.
93828. ACTINOSTROBUS ACUMINATUS Parl. Pinaceae. A small erect densely branched shrub, usually about 1 foot high, with short, thick, rigid leaves in whorls of three, and small cones half an inch in diameter, contractile at the tip into a distinct neck. It is native to Western Australia.
93829. ALYGONIE HAKKAFOLIA (Gordano) Alefeld. Malvaceae. An erect evergreen shrub, native to Australia, with narrow lobed or deeply serrate leaves and large purple-Hill flowers. It is closely related to Gossypium. For previous introduction see 86707.
93830. BAECKEA PENTANDRA F. Muell. Myrtaceae. An erect heathlike shrub with slender branches 1 to 2 feet long and linear-obtuse leaves less than one-fourth of an inch long. The very small white or pink flowers are in clusters of one to three in the axils of the leaves. It is native to Western Australia.
93831. BRUNONIA AUSTRALIS J. F. Smith. Goodeniaceae. A silky haired tufted perennial, native to Australia, with a rosette of linear-obovate entire leaves 2 to 4 inches long and scapes 6 to 12 inches high, bearing globular blue flower heads less than 1 inch in diameter. For previous introduction see 77267.
93832. CALISTEMON CITRINUS (Curtis) Skeels (C. lanceolatus DC.). Myrtaceae. Lemon bottlebrush. An evergreen shrub up to 12 feet high, with lanceolate leaves 1 to 3 inches long, reddish when young, and spikes 2 to 4 inches long of small flowers with long
93838 to 93845—Continued.

**CALOPHYLLUM KNOXII** (Endl.) Benth. and Hook. Pinaceae.

A shrub or small tree 12 to 15 feet high, with stout flexuous branchlets. The leaves are reduced to scales the midribs of which form the angles on the stem between the nodes. It is native to Western Australia.

93839. **Calothamnus Quadrifidus** Alt. Myrtaceae.

An erect evergreen bush 7 feet high, native to Western Australia, with crowded linear leaves about 1 inch long, somewhat like those of Hakea, and dense spikes of flowers which are conspicuous because of the long, rich crimson stamens.

For previous introduction see 79935.

93840. **Conospermum bracteosum** Meissn. Proteaceae.

An undershrub with usually simple stems 1 to 2 feet high and petioled basal leaves with nearly orbicular blades 1 inch long. The stem leaves are bractlike, closely appressed, and only half an inch long. The flexuose spikes, 2 to 3 inches long, are in the axils of the upper leaves and have small white or violet flowers densely covered with silky white hairs. It is native to Western Australia.

93841. **Dampiera Welsiana** F. Muell. Goodeniaceae.

A tufted perennial, native to Western Australia, with thick glabrous radical leaves and erect woolly tomentose stems bearing bracted globular heads of small blue flowers.

For previous introduction see 77280.

93842. **Eucalyptus erythrocorys** F. Muell. Myrtaceae.

Usually a shrub 8 to 10 feet high, but sometimes a tree up to 30 feet. The broadly linear rigid leaves are 6 inches long. The large flowers in axillary clusters which form bright-red bushy panicels above the buds, and the long stamens are yellow. The ribbed hemispherical fruits are 1 to 2 feet long. It is native to Western Australia.

93843. **Eucalyptus macrocarpa** Hook. Myrtaceae.

A stout Australian shrub or small tree up to 15 feet high, with thick rigid coriaceous glaucous leaves 6 inches long and large solitary brilliant orange to crimson flowers.

For previous introduction see 77283.

93844. **Melaleuca Hypericifolia** J. E. Smith. Dotted melaleuca.

A tall glabrous shrub with opposite lanceolate to oblong leaves 1 to 2 inches long, dotted beneath, and rich-red flowers in spikes 2 inches long and about as thick. Native to Australia.

For previous introduction see 90860.

93845. **Melaleuca laterniflora** Otto and Dietr.

A graceful shrub, 6 to 12 feet high, with slender branches, alternate linear leaves about 1 inch long, and cylindrical spikes, 3 inches long, of scarlet-vermilion flowers. It is native to Western Australia.

For previous introduction see 87081.

93846. **Pericallis** spp. Myrtaceae.

**Actinotus Borei** Endl.

A tall glabrous shrub with broadly ovate leaves about one-fourth inch long densely crowded on the shoots. The white or pink flowers on slender pedicels are borne in leafy panicles and are densely covered with soft hairs. It is native to Western Australia.

93847. **Verticordia fontanesii** DC.

An erect bushy shrub, 3 to 4 feet high, with linear half-round or 3-cornered leaves about one-fourth inch long densely crowded on the shoots. The white or pink flowers on slender pedicels are borne in leafy panicles and are densely covered with soft hairs. It is native to Western Australia.

93848. **Callitris boei** (C.) Dietr. Sporaeaceae.

An erect shrub much resembling heather (Calluna vulgaris), with spreading branches and thick concave oblong leaves less than a quarter of an inch long. The flowers, borne in dense panicles, have top-shaped calyxes with the lobes divided into awl-shaped plumes, and the small petals are fringed at the tip. It is native to Western Australia.


A large shrub or small tree up to 25 feet high, with branchlets and florescence densely brown tomentose. The ovate to oblong leaves, 3 to 5 inches long, have undulate prickly margins, and the small flowers, in dense spikes 3 to 6 inches long, are followed by woody fruits 2 to 3 inches long and 1 inch in diameter. It is native to Western Australia.


**Peach.**

From the Union of South Africa. Seeds purchased from H. E. V. Pickstone & Bros. (Ltd.), Simonium, Cape of Good Hope. Received July 18, 1931.

Pucelle de Malines.


To be grown and tested as stock for cultivated varieties of oriental cherries.
From New Zealand. Plants presented by George A. Green, Consulting Horticulturist, New Zealand Horticultural Trades Association. Received July 22, 1931.

93848. CITRUS LIMONIA Osbeck. Rutaceae.
   Lemon.
   Short-thorned Lisbon lemon, Benjamin’s type. Doncaster Lisbon on sweet stock.

93849. CITRUS GRANDIS (L.) Osbeck (C. decumana Murr.). Rutaceae.
   Grapefruit.
   Poorman (Morrison’s type) grapefruit on sweet stock.

93850. PRUNUS sp. Amygdalaceae.
   Plum.
   From Morocco, Africa. Seeds presented by C. Bey Roset, Station Expérimentale de Marrakech. Received July 22, 1931.

93851 to 93865.
   From Morocco, Africa. Seeds presented by Robert W. Hodgson, Tunis. Received July 23, 1931.

93852. CITRUS AURANTIUM L. Rutaceae.
   Orange.
   The Beldi double, or native double, orange from Menzel bou Zelta.

93853. CITRUS GRAUNUM L. Rutaceae.
   Seville orange.
   Bouquetier de Nice. From Nabeul. A variety of the bigarade orange which is grown for the manufacture of oil of neroli and oil of petit grain.

93854. CITRUS NOBIS D. DELICIOSA (Ten.) Swing. Rutaceae.
   Mandarin orange.
   Mandarine ordinaire, or common mandarin, from La Soukra.

93855. CITRUS GRANDIS (L.) Osbeck (C. decumana Murr.). Rutaceae.
   Orange.
   Nekki. From Menzel bou Zelta. A native sweet orange which lacks acid.

93856 to 93866. MANGIFERA INDICA L. Anacardiaceae.
   Mango.
   From the Canal Zone. Budsticks presented by J. E. Higgins, Director, Canal Zone Experiment Gardens, Summit. Received July 25, 1931.

93867. ACANTHOPANAX BOVIDIOLIFOLIUM Harms. Araliaceae.
   No. 29037. An unarmed shrub 10 feet high with trifoliolate leaves crowded at the ends of the branchlets. The small lanceolate acuminate leaflets are 3 or 4 inches long. Native to Yunnan, China.

93867. ACANTHOPANAX GIRALDI DIELS Araliaceae.
   No. 29034. A densely prickly shrub up to 10 feet high with ciliate leaves made up of three to five sessile obovate doubly serrate leaflets 1 to 3 inches long. The inconspicuous greenish flowers are in solitary umbels and are followed by small black berrylke fruits. It is native to central and northern China.

93868. ACER LAXIFLORUM Franch. Aceraceae.
   No. 28395. A tree up to 50 feet high with coriaceous leaves made up of three to five sessile obovate doubly serrate leaflets 1 to 3 inches long. The inconspicuous greenish flowers are in solitary umbels and are followed by small black berrylke fruits. It is native to central and northern China.

93869. OLIVE EUROPAEA L. Oleaceae.
   Olive.
   Nos. 93860 to 93869. Barouni de Sahel. From Soukra.
   Nos. 93860 to 93864 are from the Forest of Djebel Amar, near Tunis, on the road to Bizerte.
93871 to 93970—Continued.

93874. ACONITUM sp. Ranunculaceae.
No. 28406.

93875. ALBIZIA sp. Mimosaceae.
No. 28545.

93876. ANEMONE DEMISSA Hook. f. and Thoms. Ranunculaceae.
No. 28599.

93877. AQUILEGIA VULGARIS L. Ranunculaceae.
European columbine.
No. 28402.

93878. ABALIA CHINENSIS L. Araliaceae.
No. 29026. A deciduous Chinese shrub 10 feet high with membranous light-green leaves, cymes of pink flowers, and dense clusters of round berrylike violet fruits which hang on after the leaves have fallen.

For previous introduction see 76183.

93880. CHALCAS KOENIGII (L.) Kurz. (Murraya koenigi Spreng.). Rutaceae.
Plate 420. A dwarf herbaceous perennial 4 inches high, with soft white wool a quarter of an inch long. The round toothed leaves, 1 to 2 inches across, are very closely set on the stem, and the large 2-lipped yellow flowers, 1 to 2 inches long, are borne in axillary whorls. It is native to the alpine slopes of the central Himalayas in India.

93881. to 93894. EUONYMUS spp. Celastraceae.
93881. EUONYMUS GRANDIFLORUS Wall.
No. 28371. A small tree 10 or 12 feet high, native to India, with leathery oblong-ovate sharply serrate leaves 3 to 6 inches long and white flowers, 1 inch across, on slender pedicels as long as the leaves. The fruits are yellow, and the seeds are inclosed with red arils.

93882. EUONYMUS OREBSIUS W. W. Smith.
No. 28881. A shrub 3 to 6 feet high with spreading branches, lanceolate leathery leaves 1 inch long, and axillary cymes of pyramidal fruits.

93884. EUONYMUS sp.
No. 29030.

93885. EXCOCCARIA ACERIFOLIA F. Ditr. Euphorbiaceae.
No. 29091. A small evergreen tree, native to the central and western Himalayas in India. The alternate oblanceolate leaves with crenulate margins are 3 to 6 inches long and the small flowers are borne in slender terminal and axillary spikes 1 to 2 inches long.

93886. GAULTHERIA FRAGRANTISSIMA Wall. Ericaceae.
No. 29050. A very fragrant evergreen shrub or small tree, found in the mountains of Nepal eastward to Bhutan. In summer it is loaded with white or pinkish flowers which are followed by beautiful racemes of blue-purple fruits.

For previous introduction see 65254.

No. 28997. A stout herbaceous perennial, native to the slopes of the Himalayas between 11,000 and 14,000 feet altitude in Sikkim, India. The simple stems are 3 to 6 feet high, the lower leaves are elliptic and 12 inches long, and the upper leaves are sessile and about 5 inches long. The widely funnel-shaped solitary flowers are borne on axillary peduncles up to 8 inches long.

GENTIANA STYLOPHORA C. B. Clarke. Gentianaceae.

No. 28996. A perennial herb about 1 foot high, with broadly ovate serrate leaves and violet-blue flowers. It is native to northeastern Asia and Japan.

For previous introduction see 48271.

LOBELIA SESSILIFOLIA Lamb. Campanulaceae.

No. 28901. A shrub up to 15 feet high, native to western China. The branches are densely villous, the ovate ciliate leaves are 2 to 3 inches long, and the solitary globose berries are bright red and are borne on slender pedicels.

For previous introduction see 34836.


No. 29006. A small shrub, native to Yunnan, resembling L. serpyllifolia with obovate leaves one-half inch long and tubular flowers one-half inch long covered with white wool.

For previous introduction see 48310.


No. 28966. A perennial herb about 1 foot high, with broadly ovate serrate leaves and violet-blue flowers. It is native to northeastern Asia and Japan.

For previous introduction see 48271.

LOBELIA PYRAMIDALIS Wall. Campanulaceae.

No. 28322. A widely branched herbaceous plant 2 to 7 feet high, found between 3,000 and 9,000 feet altitude in the Himalayan Mountains. The linear leaves are glabrous, and the purplish-whitish flowers are produced in many-flowered racemes.

For previous introduction see 77854.


No. 28388. A spreading tree up to about 25 feet high, with smooth dark-gray bark. The fragrant white or pinkish flowers, about 2 inches across, are in clusters of three to seven, and the fruits, about an inch in diameter, are greenish yellow with red cheeks. A floriferous and handsome crab apple, native to China and the Himalayas.

For previous introduction see 77854.

MECONOPSIS INTEGRIFOLIA Franch. Papaveraceae.

No. 28394. A perennial herb, 1 to 2 feet high, bearing rich golden-yellow flowers. It is found in alpine meadows at 15,000 feet altitude in southwestern Szechwan.

For previous introduction see 80369.
No. 28625. A perennial herb with a stout rootstock and ascending stems 4 to 6 inches long. The dark-purple flowers are in oblong capitate spikes.

For previous introduction see 80200.

No. 28525. A slender perennial herb from western China, with linear-oblong leaves 1 inch or more long and rose-pink flowers, nearly 1 inch across, in short few-flowered racemes.

No. 28651. A shrub 3 to 12 feet high, with olive-green glabrous branchlets and dull dark-green trifoliolate leaves of lanceolate leaflets 2 to 3 inches long, native to northwestern Yunnan, China. The golden-yellow pea-shaped flowers, 1 inch long, are in terminal clusters and form a yellow contrast to the dark leaves.

No. 28392. A perennial herb, with stems about 8 inches high and a thick rhizome. The basal leaves are long stemmed deeply cordate round or reniform and nearly 2 inches across, while the stem leaves are round and clasping. The white flowers are about half an inch long. It is native to Yunnan, China.

No. 2871. A small tree, native to the subtropical Himalayas in India, with the branchlets and inflorescence covered with rusty down. The coriaceous leaves, 5 to 9 inches long, are oblong-cordate with coarsely serrate margins, and the inconspicuous small flowers are in large spreading panicles.

No. 28611. An alpine perennial, native to Sikkim, India, with a stout rootstock and ascending stems 4 to 6 inches high. The leaves are crowded, narrowly linear, pubescent, and about 2 inches long. The dark-purple flowers are in oblong capitate spikes.

For previous introduction see 80200.

No. 28450. A robust form with spikes up to 15 inches long of pale purplish blue flowers. It is native to the Mull region of western China.

No. 28414. Said to be a variety of P. pseudosinensis, which is a tall stout glabrous herbaceous perennial, native to Yunnan, China. The broad leathery ovate-oblong leaves, 9 inches long, have crisped and twisted dentate margins folded upwards on each side. The flower scape, 3 to 5 feet high, bears superposed umbels of 3 to 12 rosy flowers 1 inch across with a golden ring at the mouth.

No. 28400. Said to be a form of P. polyneura, which is a perennial herb with suborbicular crenate-lobed leaves 1 to 3 inches long and scapes 4 to 16 inches long bearing one to three umbels of purple flowers about half an inch across. It is native to central China.

No. 28389. A perennial herb, native to Yunnan, with ovate leaves, covered with white meal, spreading flat on the ground. The scape bears an umbel of short-stalked, purple-blue flowers with measly calyces.

No. 28425. A perennial herb with a short rhizome.

No. 28413. A perennial herb with ovate-oblong finely serrulate papery leaves 2 to 4 inches long and scapes 4 to 16 inches long bearing one to three umbels of purple flowers nearly an inch across. It is native to southwestern China.

No. 28422. Received as P. pseudo-sikkimensis, which is now considered to be a form of P. sikkimensis with larger and brighter canary-yellow flowers. It is native to Yunnan, China.

No. 28412. A tall stout glabrous herbaceous perennial found growing close to the snow line in the mountainous parts of Yunnan. Under favorable circumstances the scape rises to a height of over 3 feet and produces, in the early summer, its whorls of showy flowers, a glowing velvety purple color with conspicuous eyes.

For previous introduction see 48532.
and thin papery oblong leaves covered with reddish glands, and all erect, or nearly so, forming a narrow erect crown. The short scapes, 6 to 9 inches high, bear solitary purple-violet vinca-like flowers 1 to 2 inches across.

**PBUNUS UNDULATA** Buch.-Ham. Amygdalaceae.

No. 28558. A small tree, native to India, with slender branches and membranous crenate-serrate leaves varying from oblong-lanceolate and 2 to 3 inches long to linear-lanceolate and much longer. The small white flowers are in slender racemes, and the globose fruits are less than a quarter of an inch in diameter.

**RHEUM DELAYATI** Franch. Polygonaceae.

No. 28509. A perennial herb from southwestern China with stems 6 inches to nearly a foot high, thick cordate-ovate leaves about 2 inches long, and small purple flowers.

**RIBES** spp. Grossulariaceae.

No. 28421. A shrub 10 to 15 feet high, with redish young shoots, rounded leaves, and small flowers which are maroon or purplish on the inside. The small currant-like fruits mature in July in the higher altitudes of the Himalayas where the species is native. For previous introduction see 58637.

No. 28618. A form with black fruits.

No. 28619.

**RIBES GLACIALE** Wall.

A shrub 10 to 15 feet high, with redish young shoots, rounded leaves, and small flowers which are maroon or purplish on the inside. The small currant-like fruits mature in July in the higher altitudes of the Himalayas where the species is native. For previous introduction see 58637.

No. 28550.

**RIBES GLACIALE** Wall.

A shrub 10 to 15 feet high, with redish young shoots, rounded leaves, and small flowers which are maroon or purplish on the inside. The small currant-like fruits mature in July in the higher altitudes of the Himalayas where the species is native. For previous introduction see 58637.

No. 28618. A form with black fruits.

**RUBUS LUTESCENS** Franch. Rosaceae.

No. 28510. A small shrub from 1 to 2 feet high, native to alpine slopes from 10,000 to 15,000 feet altitude in Yunnan, China. The leaves are small, the flowers a pale canary-yellow and the large deep green above and paler beneath. The small white flowers are borne in terminal corymbs 3 to 5 inches across and are followed by reddish fruits nearly 1 inch in diameter.

**RUBUS EPIDENDRON** Hand.-Mazz.

No. 29021. A clambering shrub, native to western China, with more or less resolute obovate papery leaves about 4 inches long, deep green above and paler beneath. The small white flowers are in hemispherical corymbs about 2 inches across.

**RUBUS HARROWIANA** (Balf. and Smith) Rehder.

No. 29015. A tree up to 40 feet high, native to China, with compound leaves made up of three to nine oblong-serrulate coriaceous leaflets 8 inches long. The small white flowers, in compound terminal corymbs 6 to 8 inches across, are followed by ovoid fruits a quarter of an inch in diameter.

**RUBUS KOEHNNEANA** C. Salig.

A shrub up to 10 feet high, native to central China. The compound leaves are made up of 17 to 25 oblong-serrate sharply serrate leaflets 1 to 2 inches long, and the white flowers with brown anthers are in corymbs 2 to 4 inches across and are followed by small white berrylike fruits.

**SAUSSUREA** spp. Asteraceae.

No. 29044. **SAUSSUREA POOPHYLLA** Diels. No. 28527. A cespitose plant with slender stems, 5 or 6 inches high, and narrow linear leaves ranging from 5 inches at the lower parts of the stems to minute leaves above. The thistle-like flower heads are white or yellowish. Native to Tibet.

No. 28511. An erect shrub 3 to 4 feet high, native to Yunnan, China, with compound leaves made up of 17 to 25 oblong-lanceolate entire leaflets 8 inches long, glaucous beneath. The small flowers are in panicles 2 feet long, and the fruits are purplish black.

**SENECIO** sp. Asteraceae.

No. 29015. A tree up to 40 feet high, native to China, with compound leaves made up of three to nine oblong-serrulate coriaceous leaflets 8 inches long. The small white flowers, in compound terminal corymbs 6 to 8 inches across, are followed by ovoid fruits a quarter of an inch in diameter.
long. The terminal corymbs of white flowers, about 2 inches across, are succeeded by round flesh-pink berries. Native to southwestern China.

**Sorbus sp.**

No. 28503.

**Sorbus sp.**

No. 29047.

**Sorbus sp.**

No. 29049.

**Stranaea davidaiana Decaisne. Malaceae.**

No. 29025. An evergreen shrub to 25 feet high, native to western China. The oblong to oblanceolate entire leaves are 1 to 2 inches long, with the midrib and petiole often colored red. The small white flowers are in loose corymbs 2 to 3 inches across, and the round scarlet fruits are a quarter of an inch in diameter.

For previous introduction see 62738.

**Strobilanthes forrestii Diels. Acanthaceae.**

No. 28435. A subshrubby perennial 1 to 2 feet high, with all parts except the corolla covered with glandular hairs. The ovate crenate leaves are 1 to 2 inches long, and the bright-blue flowers, 1 inch across, are borne in leafy spikes. It is native to China.

**Strobilanthes versicolor Diels. Acanthaceae.**

No. 28584. A perennial herb 1 to 4 feet high, with ovate serrate leaves 2 inches long and axillary pure-white to deep-blue flowers nearly 2 inches long. It is native to China.

**Symlocos paniculata Miquel. Symlocaceae. Asia.**

No. 29032. A shrub or small tree up to 25 feet high, with all parts except the corolla covered with glandular hairs. The ovate sharply serrulate leaves are 1 to 3 inches long, the fragrant white flowers are in panicles 2 to 4 inches long, and the bright-blue ellipsoid fruits are nearly half an inch long.

**Terminalia franchetii Gagn. Combretaceae.**

No. 28547. A tree or large shrub with tortuous branches, cordate-ovate obtuse leaves over 2 inches long, and greenish-yellow flowers in small erect spikes. Native to Yunnan, China.

**Tilia paucicostata Maxim. Tiliaceae. Asia.**

No. 29008. A tree with coarsely toothed ovate leaves to 2 feet long. The oval white flowers are in clusters of 10 to 20, followed by globose to pyriform slightly ribbed fruits. It is native to northern and central China.

**Tristachyum himlayanum Wall. Caprifoliaceae.**

No. 29039. A coarse hairy herbaceous perennial native to Nepal, India. The ovate leaves are connate at the base, and the greenish flowers are followed by yellow fruits in terminal racemes.

**Veronica ciliata Fisch. Scrophulariaceae. Speedwell.**

No. 28518. A hairy-pubescent annual, 4 to 12 inches high, native to central Asia. The sessile ovate leaves are about 1 inch long, and the small flowers are sessile in terminal heads.

**Vicia cracca L. Fabaceae. Cow vetch.**

No. 28929.

**Vitis pentagona Diels and Gilg. Vitaceae. Grape.**

No. 29003. A woody vine, native to China, with the stems and leaves reddish gray tomentose. The long-petioled papery ovate leaves are usually five angled.

**Undetermined.**

No. 29230. Said to be closely related to *Briggsia forrestii*. A stemless herbaceous perennial with pale rosy purple flowers having a tinge of yellow on the lip.

**From China. Plants presented by G. Weidman Groff, Lingnan University, Canton.**

Received August 3, 1931.

**Garcinia cochinchinensis (Lour.) Choisy. Clusiaceae. Lychee.**

No. 93972 to 93977.

From China. Plants presented by G. Weidman Groff, Lingnan University, Canton. Received August 3, 1931.

**Pisum sativum L. Fabaceae. Pea.**

Seeds dark colored.

**From Hungary. Seeds purchased from Edmond Mauthner (Ltd.), Hungarian Seed Merchants’ Association, Budapest.**

Received August 3, 1931.

**Vicia cracca L. Fabaceae. Cow vetch.**

No. 28929.

**Vitis pentagona Diels and Gilg. Vitaceae. Grape.**

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From China. Plants presented by G. Weidman Groff, Lingnan University, Canton. Received August 3, 1931.

**Pisum sativum L. Fabaceae. Pea.**

Seeds light colored.

**From Hungary. Seeds purchased from Edmond Mauthner (Ltd.), Hungarian Seed Merchants’ Association, Budapest.**

Received August 3, 1931.

**Vicia cracca L. Fabaceae. Cow vetch.**

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No. 29230. Said to be closely related to *Briggsia forrestii*. A stemless herbaceous perennial with pale rosy purple flowers having a tinge of yellow on the lip.

**From China. Plants presented by G. Weidman Groff, Lingnan University, Canton.**

Received August 3, 1931.
93980 and 93981—Continued.


A stately and elegant palm, native to the East Indies, with a slender spineless stem crowned with a cluster of boldly arched leaves 3 to 4 feet in length. The fruits are elongate-ellipsoid and about half an inch long.

For previous introduction see 68115.

93981. PIGAFFETIA ELATA (Mart.) Wendl. Phoeneicaceae. Palm.

A tall ornamental palm with a stout trunk, spiny above, and spreading pinnate foliage resembling that of the coconut. Native to the East Indies.

For previous introduction see 67903.


From Australia. Seeds presented by Dr. W. L. Waterhouse, University of Sydney, New South Wales. Received August 3, 1931.

A collection of Australian wheats introduced for the use of department specialists.

93986. Indian F.

93991 to 94063—Continued.


No. 29075. A climbing shrub, plant up to 25 feet high with oval membranous leaves, short clusters of buff-yellow flowers, and small russet berries. It is native to Szechwan Province, China.

For previous introduction see 61803.

93992. BUDELIA MYRANTHA Diels. Loganiaceae.

No. 29064. A shrub 6 to 10 feet high, native to Yunnan, China, with lanceolate serrulate leaves 6 to 7 inches long and panicles 10 inches long of fragrant deep-purple flowers covered with brown hairs. It is allied to B. davidii.

93993 and 93994. THEA PITARDII (C. Stuart) Rehder (Camellia speciosa Melchior). Theaceae.

A shrub 3 to 6 feet high, native to Yunnan, China, with coriaceous ovate to oblongate-serrate leaves 2 to 4 inches long and rose-pink flowers 1 to 2 inches across.

93993. A dark-flowered form.
93994. Type.
93995. CELASTRUS sp. Celastraceae.

No. 29052. Said to be closely related to C. toosmari, which is a climbing shrub with rather fleshy deciduous lanceolate leaves 5 inches long having crenate-serrate margins. The greenish-white flowers, in axillary racemes, are followed by 3-valved yellow fruits a third of an inch in diameter.

93996. CORNUS MACROPHYLLA Wall. Cornaceae.

No. 29067. A small, strikingly handsome deciduous tree 30 to 40 feet high, chiefly noteworthy for its fine foliage. The ovate or oblong leaves, often tapering to a taillike point, are 4 to 7 inches long and 2 to 3 inches wide, smooth, bright green above and glaucous beneath. The numerous yellowish-white flowers are produced in somewhat rounded terminal cymes 4 to 6 inches across. Each flower is less than 1 inch in diameter and of too dull a white to be very effective.

For previous introduction see 40808.


No. 29090. A shrub, native to western China, 15 to 20 feet high with spreading branches, rhombic-ovate dull-green rugose leaves 3 to 5 inches long, and many-flowered corymbs of pinkish flowers succeeded by ovoid, jet-black fruits a quarter of an inch in diameter.

94000. DIPLETA YUNNANENSIS Franch. Caprifoliaceae.

No. 29091. A shrub 10 to 15 feet high, with large pinnate leaves 3 feet long, greenish flowers in long pendulous racemes, and deep-blue fruits 3 to 4 inches long. Native to western China.

For previous introduction see 77828.

94001. EUONYMUS GRANDIFLORUS Wall. Celastraceae.

No. 29096. For previous introduction and description see 93891.

94002. EUPTELEA PLEIOSPERMA Hook. f. and Thomas. Trochodendraceae.

No. 29086. A tree 30 to 40 feet high, native to the Tibet region, with slender-stalked red flowers in axillary fascicles, appearing before the leaves. The ovate-crenate leaves 3 to 6 inches long are glaucous beneath and have very long acuminate tips.


No. 29073. A shrub 6 to 8 feet high, native to western China, with linear to ovate-lanceolate serrate leaves 6 inches long. The small greenish-white flowers are borne in clusters on the midrib of the leaves and are followed by globose berries a quarter of an inch in diameter.


No. 29054. A bushy shrub with smooth grayish bark and leaves an inch or more...
93991 to 94063—Continued.

long, resembling closely those of I. cre- 94043. RHUS VERNICIFLUA Stokes. Anacardiaceae.

nata. The solitary black berries are ovod-globular. Native to Yunnan, China. No. 29057. A tree 25 to 40 feet high, cultivated in Hupeh Province, between 3,000 and 7,000 feet altitude, for its sap which when properly prepared makes a very good varnish with a hard lacquer-like finish. The sap is poisonous to some people. The branches are more or less whorled and the leaves, imparipinnate, five to many foliate, are from 1 to nearly 3 feet long and clustered at the ends of the branches. The small greenish-white flowers are borne in large axillary panicles.

For previous introduction see 80224.

94044. ROSA OMEIENSIS Rolfe. Rosaceae. Mountain Omei rose. No. 29053. A shrub 12 to 15 feet high, native to southwestern China at 13,000 feet altitude. The bush branches from the base, and the young branches, broadly winged, are carmine. The flowers are white. For previous introduction see 81653.

94045. SCHIZANDRA CHINENSIS (Turcz.) Baill. Magnoliaceae. No. 29065. A woody vine, native to northeastern China, with shining dark-green oval leaves and clusters of coral-colored berries. For previous introduction see 81653.

94046. SENECEO sp. Asteraceae. No. 29062.


94048. VACCINIUM sp. Vaccinaceae. No. 29089. A name for which a place of publication and a description have not been found.

94049. VIBURNUM CORFIFOLIUM Wall. Caprifoliaceae. No. 29087. A shrub up to 25 feet high, native to central China. The suborbicu- lar to ovate leaves, 2 to 5 inches long, are usually entire, but may have three short acute lobes at the tip. The small flowers occur in compound cymes.

For previous introduction see 83481.

94050. VACCINIUM sp. Vaccinaceae. No. 29057. A tree 25 to 40 feet high, cultivated in Hupeh Province, between 3,000 and 7,000 feet altitude, for its sap which when properly prepared makes a very good varnish with a hard lacquer-like finish. The sap is poisonous to some people. The branches are more or less whorled and the leaves, imparipinnate, five to many foliate, are from 1 to nearly 3 feet long and clustered at the ends of the branches. The small greenish-white flowers are borne in large axillary panicles.

For previous introduction see 80224.

94051. RHUS VERNICIFLUA Stokes. Anacardiaceae. No. 29057. A tree 25 to 40 feet high, cultivated in Hupeh Province, between 3,000 and 7,000 feet altitude, for its sap which when properly prepared makes a very good varnish with a hard lacquer-like finish. The sap is poisonous to some people. The branches are more or less whorled and the leaves, imparipinnate, five to many foliate, are from 1 to nearly 3 feet long and clustered at the ends of the branches. The small greenish-white flowers are borne in large axillary panicles.

For previous introduction see 80224.

94052. (Undetermined.) No. 35/1931.

94053. (Undetermined.) No. 35/1931.

94054. (Undetermined.) No. 36/1931.

94055. (Undetermined.) No. 37/1931.

94056. (Undetermined.) No. 38/1931.

94057. (Undetermined.) No. 39/1931.

94058. LYTHERUM SALICARIA L. Lythraceae. No. 40/1931.

94059. (Undetermined.) No. 41/1931.

94060. VIBURNUM sp. Caprifoliaceae. No. 29053. A shrub 12 to 15 feet high, native to southwestern China at 13,000 feet altitude. The bush branches from the base, and the young branches, broadly winged, are carmine. The flowers are white. For previous introduction see 81653.

94061. (Undetermined.) No. 33/1931.

94062. RHODODENDRON LEPHTOHRIUM Balf. and Forr. Ericaceae. A shrub 1 or 2 feet high, with thin lanceolate leaves 2 or 3 inches long and solitary deep-rose crimson-spotted flow.
94063. **ANANAS SATIVUS** Schult. f. Bromeliaceae. **Pineapple**.

From the Union of South Africa. Plants presented by D. Gunn, Port Elizabeth. Received April 26, 1920. Numbered in August, 1931.

*Natal*. The fruit of the Natal pineapple as grown at Coconut Grove in southern Florida is rather small, usually not over 6 or 7 inches long by nearly 6 inches in diameter. The exterior is somewhat rough and of a bright yellow when ripe. In quality the Natal ranks high, the flesh being sweet, mild in flavor, and almost free from fiber; the core is small. The chief disadvantage of the Natal is its small size, some fruits being too small for market. The variety is outstanding in the large number of suckers, often a dozen or more, it produces at the base of the plant immediately after fruiting.

94070 to 94073.

From China. Plants presented by G. Weidman Groß, Lingnan University, Canton. Received August 4, 1931.

94070. **ATALANTIA** sp. Rutaceae.

No. 168. From seed obtained through the Institute Scientifique, Saigon.

94071. **ATALANTIA** sp. Rutaceae.

No. 220. From the Botanical Garden, Saigon. This plant is propagated by cuttings, and it is very difficult to root.

94072. **CITRUS MEDICA** L. Rutaceae. Citron.

No. 128. Wagner citron from French Indo-China; grafted on lemon.


No. 110. Seeding plants of the Calie orange from Indo-China.

94074. **ARACHIS HYPOGAEA** L. Fabaceae. Peanut.

From Uruguay. Seeds presented by Eduard P. Brito, Facultad de Agronomia, Cátedra de Agricultura, Montevideo. Received August 21, 1931.

The Asiatic variety of peanut.

94075 to 94086.

From India. Seeds presented by the Curator, Lloyd Botanic Garden, Darjeeling, through Ralph A. Fenton, Portland, Oregon. Received August 4, 1931.

94075. **DAPHNE PAPPACEA** Wall. (D. cannabina Wall.). Thymelaeaceae.

A shrub up to 8 feet high, native to the temperate slopes of the Himalayas in India. The thinly coriaceous oblanceolate leaves are 2 to 4 inches long, and the fragrant yellowish white flowers, half an inch long, are in terminal heads.

94076. **DAPHNE INVOLUCRATA** Wall. Thymelaeaceae.

A lax shrub up to 20 feet high, with thin oblong-lanceolate leaves 3 to 6 inches long and silky white fragrant flowers in long-cupped heads. It is native to the Sikkim region in India.

94077. **MEIBOMIA FLORIBUNDA** (D. Don.) Kuntze. Fabaceae.

A woody thickly pubescent Himalayan plant with very copious axillary and terminal racemes of red flowers.

For previous introduction see 80684.
94075 to 94086—Continued.

94078. MEIROMIA HETEROCARPA (L.) Kuntze. Fabaceae.

An erect or suberect undershrub found throughout the Himalayas and in Burma. All of the bushy species of this genus are said to contain good fibers, used in some cases for paper making.

For previous introduction see 47723.

94079. PYRULARIA EDULIS (Wall.) DC. Santalaceae.

A medium-sized thorny tree native to the tropical slopes of the Himalayas up to an altitude of 5,000 feet. The leaves are 3 to 7 inches long, rather fleshy, oblong, with entire margins. The staminate flowers are in racemes, and the pistillate are solitary, producing edible pear-shaped drupes 2 inches long.

For previous introduction see 46095.

94080 to 94082. TERMINALIA spp. Combretaceae.

A medium-sized thorny tree found throughout the Himalayas and in Burma. The leaves are 8 to 10 feet long, the spathes are purple, and the male flowers are yellow while the female flowers are purplish. The dull-purple fruits are about half an inch long. The leaves are sometimes used for fodder and also for thatching.

For previous introduction see 47858.

94087 and 94088. SOLANUM MELONGENA L. Solanaecae. Eggplant.

From the Union of South Africa. Seeds presented by Dr. Raimond H. Marloth, Department of Agriculture, Pretoria. Received August 7, 1931.

94087. An early variety with long purple fruits.

94088. A variety with round purple fruits.

94089 to 94094.

From Ceylon. Seeds presented by T. H. Parsons, Curator, Royal Botanic Gardens, Peradeniya. Received August 10, 1931.

94089. CARYOPHYLLUS AROMATICUS L. Myrtaceae. Clove.

A small tree, 12 to 15 feet high, native to the Molucca Islands, now cultivated widely in tropical regions for the dried unopened flower buds, which constitute the cloves of commerce.

For previous introduction see 89026.

94090. ONSOPERMA FASCICULATUM Thwaites. Phoenicaceae.

The Katu-kitul palm of Indo-Malaya is one of the graceful cluster palms which make magnificent groups 40 to 60 feet high in the Peradeniya Gardens. The stems are spiny and make it unsuitable for small gardens, but useful for large parks.

For previous introduction see 88674.

94091. ONSOPERMA FILAMENTOSUM Blume. Phoenicaceae.

The Nibung is a cluster palm of great beauty which rises to a height of 50 feet and waves its pinnate leaves in the slightest breeze. Like its relative, Onco sperma fasciculatum, it is a spiny palm and therefore not suited for small gardens. The great clumps of this palm are wonderfully effective in a proper setting.

For previous introduction see 88675.

94092. PHOENICOPHORUM BORSIGIANUM (Koch) Stuntz (P. sechellarum Wendl.) Phoenicaceae.

This noble palm, famous for its beauty, is indigenous to the Seychelles Islands. The mature palm is wholly destitute of spines, whereas in the young state the deep orange-red petioles are clothed with black needlelike spines 1 to 3 inches long. The young leaves are orange beneath and
from Java. Seeds presented by the Cura-
94095 to 94098. to 94098.
Continued. 94089 to 94094—
pelago. 94098.
Reinw. (Zalacca Salakka Edulis
brown scaly pear-shaped fruits are 2 to
feet long and whitish beneath. The
flowers 4 to 5 inches long with red
3 inches long and contain an acid edible
pulp. It is native to the Malay Archi-
linear-lanceolate long-pointed leaflets 1
black fruits. The stem is said to con-
tain a farinaceous pith. It is native to
94097. Gaertn. Phoe-
94098. Gaertn. Phoe-
94098. Gaertn. Phoe-
94098. Gaertn. Phoe-
nicaceae. Palm.
A robust palm 40 feet high with a
smooth stem conspicuously ribbed, large
pinnate leaves 9 feet long and 6 feet wide,
and a large pendulous cluster of small
flowers followed by ovoid red fruits 3
inches long. Native to the East Indies.
For previous introduction see 88861.
94095. Schleicheria T r i j u g a Wild.
Sapindaceae.
Ceylon oak. A handsome shade tree
with sprawling branches. Native to the
Malay Archipelago and the
Philippines.
For previous introduction see 60659.
94095 to 94098. For previous introduction see 60659.
From Java. Seeds presented by the Curat-
tor, Botanic Gardens, Buitenzorg. Re-
ceived August 11, 1931.
94095. Cassia Timoriensis DC. Caesal-
pinaceae.
A rather low tree with slender downy
branches, pale-green leaves up to 9 inches
long, bright-yellow flowers, and thin
glossy flexible pods sometimes 6 inches
long. This tree is distributed throughout
the Malay Archipelago and the
Philippines.
For previous introduction see 72433.
94096. Clerodendrum Macroceph 
Hook. f. Verbenaceae.
An erect shrub with opposite oblong-
elate notched or pinnatifld leaves and
terminal cymes of tubular pure white
flowers 4 to 5 inches long with red
stamens 2 inches long. It is native to
tropical Africa.
For previous introduction see 90871.
94097. Phoenix pusilla Gaertn. Phoe-
nicaceae. Palm.
A dwarf palm about 4 feet high, with
pinnate leaves having spine petioles and
dark-green sword-shaped leaflets, also
black fruits. The stem is said to con-
tain a farinaceous pith. It is native to
Ceylon.
For previous introduction see 93415.
A stemless palm with pinnate leaves
have a long, often serrate, prickly and
linear-lanceolate long-pointed leaflets 1
to 2 feet long and whitish beneath. The
brown, dry, pear-shaped fruits are 2 to
3 inches long and contain an acid edible
pulp. It is native to the Malay Archi-
pelago.
94099. Pyracantha crenulata ro-
Firethorn.
Plants growing at the Chico Plant Intro-
duction Garden, Chico, Calif., selected out
of F. P. I. 55996. Numbered in August,
1931.
Usually a shrub, native to southwestern
China, with evergreen oblong-elliptate un-
equally serrulate leaves 1 to 2 inches long.
The glabrous corysts of small white flowers
are followed by reddish-orange fruits about
one-third of an inch in diameter.
94100 to 94150. From China. Seeds collected by the For-
rest Expedition, 1930—32, to southwestern
China and presented by Maj. Lionel de
Rothschild, London, England. Received
August 6, 1931.
94100. Pittosporum Floribundum
Wight and Arnott. Pittosporaceae.
A handsome subtropical tree with a
short straight trunk, spreading branches,
and numerous yellowish flowers in termi-
nal panicles. The tree has light-colored
strong tough wood and yields an aro-
matic resin or oleo-resin having very ad-
hesive properties. The tree is native to
the outer Himalayas, ascending to 3,500
feet.
For previous introduction see 75964.
94101 to 94150. Rhododendron spp.
Ericaceae.
94101 to 94104. Rhododendron Aden-
ophorum Balf. and Smith.
A shrub up to 7 feet high with thick
lanceolate leaves up to 5 inches long
and rose-colored flowers over an inch
long in lax umbels. Native to Yunnan.
China.
94101. No. 29256. 94103. No. 29313.
94102. No. 29312. 94104. No. 29314.
94105 to 94107. Rhododendron bal-
Fourianum Aganaphoides Diels.
A shrub 4 to 5 feet high, with leath-
ery oblong or narrowly ovate leaves 2 to
3 inches long, the lower surface of
which is covered with a spongy indu-
mentum, and pale-rose fleshy flowers an
diameter, with crimson markings.
Native to Yunnan.
94105. No. 29244. 94107. No. 29264
94106. No. 29263.
94108. Rhododendron Beesianum Diels.
No. 29247. A shrub 15 to 20 feet
high, with leathery purple-green nar-
rowly oblongolate leaves about 6 inches
long and deep rich-rose flowers up to
2 inches across. Allied to R. delavayi
Franch. Native to Yunnan.
94109 and 94110. Rhododendron clivyolum Balf. and Smith.
A shrub 3 to 5 feet high, with thick
leathery oblong-elliptic leaves about 1
inch long and flowers with a white
limb and yellow tube, in terminal head-
like umbels. Native to Yunnan.
94109. No. 29267. 94110. No. 29283.
94111. Rhododendron crocicum Balf.
and Smith.
No. 29322. A shrub up to 22 feet
high, with somewhat papery oblong
leaves up to 5 inches long and flesh-yellow red-spotted flowers over 1 inch long in racemose umbels. Native to Yunnan.

**RHODODENDRON CUCULATUM** Hand.-Mazz.

A stout shrub about 10 feet high, with rigid lanceolate leaves up to 4 inches long and white flowers flushed pink in umbels of 15 to 20 flowers. Native to Szechwan, China.

No. 29257. No. 29317.

**RHODODENDRON GLOBOSUM** Balf. and Forr.

A stout shrub about 2 feet high, with rigid leathery oblong-oval leaves 2 to 3 inches long and white flowers, spotted with crimson, an inch long, in compact umbels. Native to Szechwan.

No. 29130. No. 29258.

**RHODODENDRON HEMI TRICHOTUM** Balf. and Forr.

A small twiggy bush nearly 3 feet in height, with very thin interlacing profusely floriferous hairy branches. The leathery narrow-oblong leaves are an inch long, and the pale rose flowers are in small umbels. Native to southwestern China.

No. 29248. No. 29273.

**RHODODENDRON INTRICATUM** Franch.

No. 29266. A bushy plant with dark-green, oval-rounded leaves, white scaly beneath and half an inch long, and purplish flowers two-fifths inch across, in twos and threes. Native to Szechwan.

**RHODODENDRON MIMETES SIMULANS** Tagg. and Forr.

No. 29281. A shrub 3 to 7 feet high, with thick short branches, leathery cordate-elliptic leaves 3 to 4 inches long, with a splitting indumentum, and white, rose-ringed flowers in a lax umbel. Native to Szechwan.

No. 29251. No. 29253.

**RHODODENDRON sp.**


**RHODODENDRON YUNNANENSE** Franch. Yunnan rhododendron.

No. 29323. A low shrub, 6 feet or less high, with narrowly elliptic, somewhat hairy leaves and few-flowered clusters of broadly funnel-shaped flowers, white, with the upper lobes spotted blood red. Native to Yunnan, China.

From Japan. Seeds arranged for by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry; collected near Tokyo and sent by N. Suyetake through the United States Consulate, Tokyo. Received August 7, 1931.


94158. **ALBIZZIA ACLE** (Glycine hispida Maxim.). Fabaceae. Redbead.


94165. **CHABENOKU** No. 4. Leguminosae. Soybean. Gold soybean.

94166. **CHABENOKU** No. 5. Leguminosae. Soybean. Gold soybean.


94174 and 94175. From the Union of South Africa. Seeds purchased from De Mole & Kisch, Maritzburg, Natal Province. Received August 14, 1931.


94177. **ADORIDIA MIRRILLII** Beccari. Phoeniceae. Palm. Bonga de China or bonga de Jolo. 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 51809.

For previous introduction see 88868.

94178. **ALBIZZIA ACLE** (Blanco) Merr. Mimosaceae. A large tree up to 100 feet high and 3 to 4 feet in diameter, native to the Philippine Islands. The bipinnate leaves have two pinnae each bearing three to six pairs of ovate leaflets 2 to 6 inches long, and the yellow-green flowers, borne
94176 to 94201—Continued.

in small heads, are followed by flat pods 10 to 15 inches long, constricted between the seeds.

94179. ALZIZZIA PROCERA (Roxb.) Benth. Mimosaceae.

A tall handsome tropical tree, often 60 to 80 feet high, with yellowish or greenish-white bark, large compound leaves, and terminal panicles of yellowish-white flowers. In Burma, Bengal, and southern India, where this tree is native, the brown heartwood is used for making agricultural implements.

For previous introduction see 61594.

94180. AMERIMNON SISOO (Roxb.) Kuntze (Dalbergia sissoo Roxb.). Fabaceae.

A large deciduous tree native to tropical and subtropical regions of the lower Himalayas, and to the West Indies, 80 feet high, native to the Philippines, Guam, and Java. The large greenish-yellow flowers are in dense sessile axillary clusters. The rather turgid, straight, firm, narrow pods are a foot long. Its native habitat is the mountainous country of northeastern India.

For previous introduction see 87520.

94181. BACHINIA MALABARICA Roxb. Caesalpinaceae.

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

For previous introduction see 88108.

94182. CAESALPINIA SAPPAN L. Caesalpinaceae.

Sappan.

A shrubby leguminous tree, native to India, belonging to the Malay Archipelago, which bears showy yellow flowers. The wood yields a red dye, and the bark is used for tanning. It is said to be an excellent hedge plant and to endure rather poor dry soils.

For previous introduction see 88108.

94183. CANANGIUM ODORATUM (Lam.) Baill. Annonaceae. Yang-yang.

A large quick-growing tree, 60 to 80 feet high, native to the Philippines, Guam, and Java. The large greenish-yellow flowers are strongly scented and yield by distillation the popular perfume, ylang-ylang.

For previous introduction see 51811.

94184. CARLUDOVICA PALMATA Ruiz and Pav. Cyclanthaceae.

A stemless plant, native to Peru, with palmately divided, palmlike leaves about 2 feet across, on petioles 4 to 6 feet high. The leaves are used for making Panama hats.

94185. CASSIA JAVANICA L. Caesalpinaceae.

A small tree with gorgeous pink flowers over 2 inches across, borne in large clusters during February.

For previous introduction see 67542.

94176 to 94201—Continued.

94186. CEDREL A ODORATA L. Meliaceae. Cigarbox cedar.

A tree, sometimes 100 feet tall, with handsome bright-green compound leaves 10 to 20 inches long. It is native to the West Indies and is the tree which produces the cigar-box wood of Cuba.

For previous introduction see 59302.

94187. ERYTHRINA FUSCA Lour. Fabaceae. Coral tree.

A large handsome tropical shrub up to 8 feet high, with prickly brown bark, unarmed compound narrow leaflets, and terminal racemes of brown-red flowers. Native to French Indo-China.

For previous introduction see 72436.


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.

For previous introduction see 81823.

94189. FLACOURTIA IKUKAM Zoll. and Mor. Flacourtiaeae.

A handsome unarmed Malayan drought-resistant tree with leathery leaves and edible berries, about the size of cherries, which are said to make excellent preserves.

For previous introduction see 80770.

94190. GNETUM INDICUM (Lour.) Merr. (G. funiculare Blume). Gnetaceae.

Bulso.

A tropical woody vine with brick-red fruits in bunches like grapes, each containing a nut which when roasted has the flavor of a chestnut. Native to the Philippines.

For previous introduction see 81494.


A tall unarmed palm with a straight slender stem and long pinnate leaves, growing in protected situations and where the rainfall is evenly distributed. It is one of the most attractive and graceful palms and will make a good plant for the conservatory and possibly a good house plant.

For previous introduction see 89203.

94192. HURA CREPI TANS L. Euphorbiaceae. Sandbuxtree. Monkey dinner-bell. An ornamental tree, native to the American Tropics, which attains a height of 100 feet. The broad-ovate repand-dentate palmate leaves are on long petioles. The small reddish flowers are followed by deeply ribbed capsules 3 inches wide and over an inch thick, which explode with a loud noise when ripe and throw the seeds many feet. Cattle eat the falling leaves and thrive on them. The lumber is used for tanks, vats, etc.

For previous introduction see 35592.

94176 to 94201—Continued.

A tall tree 100 feet or more in height, with fragrant white and reddish flowers borne in large conspicuous clusters. The wood is valued as building material.

For previous introduction see 63772.

94194. LAGERSTROEMIA SPECIOSA (Munch.) Pers. (L. floregriniae Retz.), Lythraceae. Queen crape-myrtle.

A tree 50 to 60 feet high, with leaves 4 to 8 inches long and large panicles of flowers which change in color from rose to purple from morning to evening. This is the chief timber tree of Assam, eastern Bengal, and Chittagong, India, where it occurs along river banks and in swampy ground. It is commonly cultivated as an avenue tree.

For previous introduction see 49538.

94195. LEUCANEA GLAUC娅 (L.) Benth., Mimosaceae.

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

For previous introduction see 58156.


A West Indian tree up to 60 feet high, with large yellowish white flowers. The wood, stronger and much lighter than basswood, is used for refrigeration purposes, insulation, and airplane construction. The very small seeds are embedded in a silk-cotton lint which is used in life preservers, as it does not absorb water.

For previous introduction see 73124.

94197. ORANIA PALINDAN (Blanco) Merr., Phoenicaceae. Palm.

Banga. A tall unarmed ornamental palm, native to the interior of Bukidnon, Mindanao, found between 900 and 1,500 feet altitude. The trunk is straight and remarkably uniform in diameter, rarely exceeding 6 inches. The leaves are pinnate and silvery beneath. The native uses the straight-grained, durable wood for floors, fences, etc.

For previous introduction see 46738.

94198. PITHCOLLORUM SCUTIFERUM (Blanco) Benth., Mimosaceae.

A small tree 10 to 12 inches in diameter, native to the Philippines. The bipinnate leaves have one pair of pinnae each bearing two to three pairs of oblong to ovate leaflets 4 to 6 inches long. The small flowers are borne in panicles and are followed by large curved red pods which open and show the blue seeds.

94199. SIDEREOXYL MACRANTHUM Merr., Sapotaceae.

A large Philippine tree with somewhat leathery shining leaves up to 7 inches in length and small creamy white flowers with pink-tinted petals, in clusters at the tips of the branches. The roundish fruits, slightly over an inch in diameter, are two seeded or three seeded.

For previous introduction see 54895.

94200. SWIETENIA MACROPHYLLA King, Meliaceae. Mahogany.

For previous introduction see 54895.

94176 to 94201—Continued.

A large tree, native to tropical America, with compound leaves made up of three to five pairs of elliptic-oblong leaflets 4 to 8 inches long and small flowers in panicles. The ovoid woody fruits are 6 inches long and contain winged seeds 3 to 4 inches long. This species forms the mahogany being marketed at the present time.


The common teak is a native to southern and central India. The young branches are quadrangular, the leaves opposite and elliptical or egg-shaped, and the white flowers are borne in terminal panicles. The wood is highly prized by shipbuilders because of its great strength and durability.

For previous introduction see 66242.

94202. SCILLA CHINENSIS Benth. Liliaceae.


No. 7005. Collected on the mountain side, a few miles from the eight famous temples near Peiping. A bulbous perennial, native to China, with two or three linear channelled leaves a foot in length and a scape about 2 feet high bearing a raceme nearly a foot long of delicate rose-pink flowers a quarter of an inch across. The flowers appear in the early summer.

94203. ICHTHYOMETHIA PISCIPULA (L.) Hitch. Fabaceae.

From the American Virgin Islands. Seeds presented by Claud L. Horn, Horticulturist, Agricultural Experiment Station, Christiansted, Saint Croix. Received August 25, 1931.

An irregularly branched tree up to 50 feet high, with reddish-brown scaly bark and stout branches. The pinnate leaves, 15 inches long, have seven to nine oblong to obovate leaflets 4 inches long, and the pea-shaped white flowers, tinged with red, are borne in panicles 4 to 8 inches long. It is native to the West Indies and northern Mexico.


From Jamaica, British West Indies. Plants presented by A. P. Hanson, Agricultural Instructor, Stony Point. Received August 28, 1931.

94204. Jamaica black.

94205. Sam Clark.


An attractive dwarf fan palm, native to the lowlands of South Carolina, Georgia, and Florida, but very local in its distribution now quite rare and appears to be approaching extinction as a wild plant. The 2-foot to 3-foot stems are erect
or creeping, with leaves dark shiny green above and silvery gray beneath. The leaves reach a height of 5 to 4 feet. Slender sharp black spines up to a foot long project from the trunk in every direction and also surround and protect the inflorescence. The staminate and pistillate flowers are borne on separate plants.


From Sicily. Seeds presented by Giardino Allegra, Catania. Received July 31, 1931.

A tree up to 50 feet high, native to the Norfolk Islands. The broadly lanceolate to ovate-oblong leaves are 3 to 5 inches long, and the pale-rose hibiscuslike flowers, 2 to 3 inches across, are in axillary clusters of three to five.


From Jamaica, British West Indies. Plants presented by A. P. Hanson, Agricultural Instructor, Stony Point. Received August 29, 1931.

Jamaica Sugar.


From India. Seeds presented by R. N. Parker, Forest Botanist, New Forest, Dehra Dun. Received August 29, 1931.

An Indian clump bamboo with bright green stems 20 to 80 feet high and numerous branches bearing dense foliage. It appears to differ from Bambusa tulda only in the larger spikelets.

For previous introduction see 81495.


From Hawaii. Plants presented by H. L. Lyon, in charge, Department of Botany and Forestry, Experiment Station of the Hawaiian Sugar Planters’ Association, Honolulu. Received August 31, 1931.

A tree with angular branches and alternate oblong to ovate leaves 3 to 4 inches long. The one-fourth of an inch in diameter, have three persistent basal bracts which are large in proportion to the size of the fruit. This tree is a source of rubber in the Rigo district of New Guinea.


From the Canal Zone. Seeds presented by James Zetek, Molina Swamp, Balboa. Received August 31, 1931.

The sugar or wine palm of west tropical Africa. A large handsome palm with immense planate leaves and ornamental fruits in enormous pendent bunches 10 to 12 feet long. This is a striking palm for large parks.

For previous introduction see 70746.

94212 to 94222—Continued.

94212 to 94215. Citrus spp. Rutaceae.


For previous introduction and description see 93348.

94213 and 94214. Citrus grandis (L.) Osbeck (U. decumana Murt.) Grapefruit.

94213. Poorman (Morrison’s type).

For previous introduction and description see 93349.

94214. New Zealand (Morrison’s type).


94216. Purple King.

94217. Wilson’s early. A hybrid between the Japanese plum, Burbank, and Prunus cerasifera divaricata, the cherry plum.

94218. Ngata.


94223 to 94225. Mangifera indica L. Anacardiaceae. Mango.

From Tahiti, Society Islands. Bud wood presented by Harrison W. Smith, Papeari. Received September 3, 1931.

94223. Roughier.

94224. Mission. This is considered the best variety on the island.

94225. Tutehau. An excellent variety which comes true from seed.


From Ceylon. Seeds presented by S. W. Parsons, Curator, Royal Botanic Gardens, Peradeniya. Received August 4, 1931.

Kana-gona or tampang-manis. A handsome tropical tree with deep-green leaves and yellowish green sour fruits 2 inches in diameter. The edible fruits are good for stewing.

For previous introduction see 76877.


From Cuba. Seeds purchased from Severino Wilson, Playa del Vapor, Habana. Received August 4, 1931.

Melon de Castilla. A commercial variety introduced for the use of department specialists.
PLANT MATERIAL INTRODUCED

From Brazil. Seeds presented by Dr. A. Bitancourt, Estacio de Agrostologia, Deodoro, via Rio de Janeiro. Received August 4, 1931.

*False orchid.* A tropical American legume with stems 3 to 10 feet long which form roots at each node, and racemes, 1 to 4 inches long, of pale-blue flowers. It forms a mat of foliage 1 to 2 feet thick and is used as a cover crop. It is also good for forage.

For previous introduction see 77294.

From Peiping, China. Seeds collected by Peter Liu. Received August 4, 1931.

A collection of commercial varieties purchased from a gardener near Peiping and introduced for the use of department specialists.

94229. *Brassica juncea* (L.) Coss. *Chieh t'sai,* pepper beet or turnip. This variety of Chinese turnip is very commonly used for making pickles.


94231. *Brassica oleracea capitata* L. *Yang boi t'sai,* foreign cabbage, also called *da tou t'sai* or large head cabbage. This variety is fried with meat or made into pickles.

94232. *Prunus* sp. Amygdalaceae.
From Persia. Scions presented by Jalil K. Hashimzade, American Agricultural School, Urumia (Rezaieh). Received April 1, 1930. Numbered in August, 1931.

A native Persian plum.

94233 and 94234.
From New Zealand. Plants presented by H. R. Wright, Avondale. Received July 30, 1930. Numbered in August, 1931.


Variety *Parkmanii.* A double-flowered form; named for Francis Parkman, the historian, in whose garden near Boston it was first grown in this country.

For previous introduction see 49081.

94235 to 94242.
From the Union of South Africa. Seeds presented by M. Wilman, McGregor Museum, Kimberley. Received September 8, 1931.

A spreading flat-topped spiny tree about 20 feet high, widely distributed throughout South Africa. The fragrant yellow flower heads are often visited by bees, but the main value of the tree in South Africa is as a shade for stock.

For previous introduction see 64215.

94236. *Acacia stolonifera* Burchell.
A spiny shrub said to have underground stoloniferous stems. The bipinnate leaves have three to seven pairs of pinnae, each bearing 9 to 1 pairs of oblong-lanceolate leaflets. The stipular spines, in pairs, are spreading and are white with recurved branches. The heads of fragrant whitish flowers are followed by straight yellow obliquely striate pods. It is native to southern Africa.

An erect branching annual plant, 2 to 3 feet high, covered with jointed hairs. The scattered leaves, 3 to 4 inches long, are elliptic-lanceolate with coarsely toothed or sinuate margins, and the large showy flower heads have bright-orange rays. It is native to southern Africa.

A climbing vine, native to southern Africa, with bipinnate or tripinnately parted leaves having ovate toothed leaflets. The heads of fragrant white flowers are followed by orbicular margined fruits with feathery tails.

A wild cotton from Angola.

A strongly resin-scented shrub, native to southern Africa, with oblong or obovate entire leaves 1 to 2 inches long and short racemes of small woolly flower heads. It is said to be a good stock feed.

94241. *Aloe schlechteri* Schoenl. Liliaceae.
An aloe from southern Africa with olivaceous leaves about 8 inches long, armed on the margin with brown horny deltoid prickles. The light-yellow flowers are in dense racemes about 6 inches long on a short peduncle.

From California. Plants presented by William Hertrich, Superintendent, Huntington Botanic Garden, San Marino. Received September 10, 1931.

One of the most beautiful of the soft-leaved agaves. It has no thorns or spikes on the foliage and has a very beautiful inflorescence.
From French Indo-China. Seeds purchased from M. Poilane, Institut des Recherches Agronomique, de l'Indochine, Division de Botanique, Annam. Received September 10, 1931. Said to be one of the most prized varieties in southern French Indo-China.

94245. **Pereskia grandifolia** Haw. Cactaceae. **Bush pereskia.** From the Canal Zone. Plants presented by J. E. Higginson, Director, Canal Zone Experiment Gardens, Summit. Received September 14, 1931.
A shrub or tree 6 to 15 feet high, with a short spiny trunk, fleshy branches, oblong leaves 3 to 6 inches long, and terminal clusters of rose-colored to white flowers 1 to 2 inches across. It is native to Brazil.

For previous introduction see 93495.


94247 to 94257. From China. Plants presented by G. Weideman Groff, Lingnan University, Canton. Received September 15, 1931.

94247. **Claucaena lansium** (Lour.) Skeels (C. wampi Oliver). Rutaceae. **Wampi.** No. 377. Wong pet. Purchased in the Canton market. A very ornamental small tree, 18 to 20 feet high. In the spring it bears small dense panicles of whitish sweet-scented flowers, and in midsummer the grape-like clusters of edible berries appear. The individual fruits are about the size of a large marble, with a rough pale straw-yellow orangish rind covered with glands filled with green balsam oil. The rather large seeds, one to three in number, are inclosed in colorless spheric capsules. It is native to southern China, where the berries are highly esteemed as a dessert fruit and as preserves.

For previous introduction see 55588.

94248. **Dracantomelon sinense** Stapf. Anacardiaceae. No. 379. Yan min or ngan min. From the Lingnan University gardens. A tree 25 to 30 feet high with brownish-yellow ovalish fruits from 1 to 2 inches in diameter. The taste is pleasant but slightly acid.

For previous introduction see 54655.

94249 to 94257. **Litchi chinensis** Sonner. Sapindaceae. Lychee. A collection of varieties from the Lingnan University gardens.

94249. No. 349. Chung un hung.

94247 to 94257—Continued.

94254. No. 194. Pat po keung.
94255. No. 205. Shan chi.
94256. No. 376. Shan chi. Originally from the Tsang Shen district.
94257. No. 365. Tai tso.

94258. **Cinnamomum burmanni** Blume. Lauraceae. From Sumatra. Seeds presented by Edward Jacobson, Fort de Kock. Received September 15, 1931. An evergreen tree, native to Java, with shining-green, ovate-oblong papery leaves of variable size, usually 2 to 6 inches long, emitting a cinnamon aroma.


For previous introduction see 76702.

94260 to 94262. From Cuba. Seeds collected by John G. Jack, Arnold Arboretum, Jamaica Plain, Mass. Received September 18, 1931.

94260. **Clidemia hirta** (L.) D. Don. Melastomaceae. A slender branching shrub 3 to 8 feet high with ovate leaves half an inch long, and axillary racemes of small campanulate, white or rosy flowers. It is native to tropical America.

94261. **Huerta cubensis** Griseb. Anacardiaceae. A tropical tree with compound leaves composed of 8 to 10 pairs of narrow-oblong leaflets 3 to 4 inches long and minute flowers in lax axillary panicles. Native to western Cuba.

94262. **Securinega vamoides** (Alt.) Muell. Arg. (S. flueggeoides Muell. Arg.). Euphorbiaceae. A shrub with slender wandlike branches, ovate-lanceolate bright-green or yellow-green leaves 1 to 2 inches long, and axillary clusters of inconspicuous greenish-white flowers, followed by green capsules. It is native to China and Japan.

94263. **Ficus** sp. Moraceae. Fig. From Africa. Scions presented by Dr. W. L. Thompson, Mount Sillinda, Southern Rhodesia. Received September 18, 1931. A wild fig which bears small but edible fruits.

94264 to 94266. From France. Seeds presented by R. Salgues, Brignoles Botanic Garden. Received September 21, 1931.

94264. **Gentiana lutea** L. Gentianaceae. Yellow gentian.
A coarse perennial, too large for the rock garden, with 3-foot to 4-foot stems bearing handsome rugose foliage, crowned in late summer in the upper whorls of leaves with crowded clusters of slender-lobed golden-yellow flowers.

For previous introduction see 78932.

**94265. LATHYRUS CICERA** L. Fabaceae.

A vine, either prostrate or ascending, with slightly winged glabrous stems up to 8 inches long. The small lanceolate leaves are in pairs on winged petioles; the upper leaves have simple undivided tendrils half as long as the leaf; the lower leaves have no tendrils. The solitary dull-red flowers, less than an inch long, are either erect or nodding.

For previous introduction see 40798.

**94266. ORNITHOGALUM PYRENAICUM** L. Liliaceae.

A bulbous plant about 2 feet high, with narrow oniolinike leaves and whitish flowers on a simple leafless stalk. It is native to Europe.

For previous introduction see 40798.

**94267. MUCUNA SP.** Fabaceae.


**94268. ANANAS SATIVUS** Schult. f. Bromeliaceae. Pineapple.

From Brazil. Plants received through L. W. Jangeneel, California Packing Corp. Received August 21, 1930. Numbered in September, 1931.

**94269. GARCINIA MANGOSTANA** L. Clusiaceae. Mangosteen.

From Central America. Plants purchased from the United Fruit Co., through Wilson Pope and Co., Research Department, Tela, Honduras. Received September 6, 1930. Numbered in September, 1931.

**94270. MANGIFERA INDICA** L. Anacardiaceae. Mango.

From Hawaii. Plants presented by W. T. Pope, senior horticulturist, Agricultural Experiment Station, Honolulu. Received November 3, 1930. Numbered in September, 1931.

**94271. EUGENIA DENSIFLOBA** (Blume) Duthie. Myrtaceae.

From Java. Seeds presented by the director, Botanic Gardens, Buitenzorg. Received December 18, 1930. Numbered in September, 1931.

A tree, native to the Malay Archipelago, with oblong leaves 4 to 10 inches long and axillary cymes of clear rose-colored flowers and round fruits about half an inch in diameter.

**94272. CITRUS SP.** Rutaceae.

From the Union of Soviet Socialist Republics. Plants presented by Maj. C. R. Oilberg, Tiflis, Transcaucasia. Received September 22, 1931.

**94273—Continued.**

A orange, known locally as a mandarin, and very similar to the tangerine, but larger, sweeter, and seedless. It is said to have come originally from Japan.

**94273. PRUNUS ARMENIACA** L. Amygdalacese. Apricot.

From Chile, South America. Plants presented by Dr. Alberto Graf Marin, Chief, Servicio de Sanidad Vegetal. Received September 24, 1931. Imperial.

**94274. RHUS SP.** Anacardiaceae.

From China. Seeds presented by T. D. Payne, China Inland Mission, Luchang, Yunnan. Received September 25, 1931.

**94275 to 94277.**

From Australia. Seeds presented by F. J. S. Wise, Agricultural Advisor, Broome, Western Australia. Received September 25, 1931.

A collection of grass seeds which are suited to semiarid conditions.

**94275. ASTREBLA SQUARROSA** Hubbard. Poaceae. Grass.

A leafy tufted perennial grass with short rhizomes from which rise the nearly erect stems to a height of 6 to 8 feet. The linear leaves are 16 inches long, and the spikelike flattened racemes are 4 to 8 inches long. It is native to Australia.

**94276. ASTREBLA SP.** Poaceae. Grass.

The slender rigid densely tufted stems up to 12 inches high rise from a somewhat bulbous slightly woolly base and are leafy to the top. The narrow panicles, 1 to 3 inches long, are made up of thin flat spikelets. It is native to Australia.

**94277. ERAGROSTIS CHAETOPHYLLA** Steud. Poaceae. Grass.


**94278. MIMULUS SP.** Scrophulariaceae.

No. 1. A low shrub with woody stems, which grows in sunny situations in very rocky places.

**94279. MIMULUS SP.** Scrophulariaceae.

No. 2. A short-stemmed herb which grows in rocky soils in partly shady situations (such as the side of a cliff only touched by the sun in the morning or evening).

**94280. PIPER METHYSTICUM** Forst. Piperaceae.

From Hawaii. Cuttings presented by W. T. Pope, Senior Horticulturist, Office of Experiment Stations, Honolulu. Received September 29, 1931.
94280—Continued.

Kava or awa. A nearly glabrous shrub, native to the Pacific Islands, 8 to 10 feet high, with round-ovat leaves, deeply cordate at the base and acuminate at the apex. From the root of this plant is made the drink known as kava, awa, or yaquona.

94281. PASSIFLORA QUADRANGULARIS L. Passifloraceae. Giant granadilla.

From Central America. Seeds presented by the United Fruit Co., through Wilson Popenoe, Research Department, Tela, Honduras. Received September 29, 1931.

An ornamental Brazilian vine producing strongly perfumed fruits which ripen from yellow to orange and have flesh about an inch thick.

For previous introduction see 78595.

94282. PIPER METHYSTICUM Forst. Piperaceae.

From the Society Islands. Plant and cuttings presented by Harrison W. Smith, Papeari, Tahiti. Received September 30, 1931.

For previous introduction and description see 94280.
Dalbergia sp., 93884.
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Indigofera sp., 93900.
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Ipil. See Grape. See Passiflora quadrangularis, granadilla, giant. See Lychnis orientalis, 94003.
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Dracontomelon sinense, 94248.
Hytnenocaugu amancaes, 93769.
Hura crepitar8, 94192.
Gaultheria fragrantissima, 93896.
Euptelea pleiosperma, 93890.
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Crataegus oresbia.
Hawthorn. See Prunus spinosa.
Grapefruit. See Citrus grandis.
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Luffa aegyptiaca. See Cucumis melo.
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Lonicera advenophora, 93908.
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Lilium liliaceum, 94266.
Lilium. See Lily. See Lilium angustifolium.
Oats. See Avena spp.
Avena. See Cucumis melo.
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Oregano. See Origanum vulgare.
Oregano. See Origanum vulgare.
Orange. See Citrus sinensis.
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Olive. See Olea europaea.
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Benzoin. See Benzoin ceratophyllum.
Benzoin. See Benzoin ceratophyllum.
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needle. See *Rhapidophyllum hystrix*.
See also *Acanthorhiza sp.* *Actinorhiza* osadgaria. *Adonis merrellii*, *Cyperocarpus latka*. *Heteropapha elata*, *Oncosperma spp.*, *Orania pal- indon*, *Phoenicophorum borsigianum*, *Phoeis pustulata*, *Pignetta elata*, *Raphia vinfera*, *Salakka edulis*, *Wal-
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*Parnassia delavayi*, 93881.
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Peach. See *Pisum sativum*.
Pea. See *Papaya*. See *Carica papaya*.
93918.
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*Phytolacca delavayi*, 93920.
*Pfottnis rotata*, 93920.
*See Arachis hypogaea*.
93921.
*Pistacia spp.*, 93825.
Pineapple. See *Anonas sativus*.
Pereskia, bush. See *Pereskia grandifolia*.
*Phaseolus angularis*, 93815.
*Phlomis rotata*, 93820.
*Phoenicophorum borsigianum*, 94092.
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*Pineapple. See Anonas sativus*.
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*Pignetta elata*, 93081.
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*Canada*. See *P. nigra*.
*Japanese*. See *P. salicina*.
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*Ptelea regia*. See *Delonix regia*.
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*Sakalak edulis*, *Oncosperma* 93969.
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Zantedeschia rehmanni, 94175.
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