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UNITED STATES DEPARTMENT OF AGRICULTURE



INVENTORY No. 120

Washington, D. C.

Issued August 1937

PLANT MATERIAL INTRODUCED BY THE DIVISION OF PLANT EXPLORATION AND INTRODUCTION, BUREAU OF PLANT INDUSTRY, JULY 1 TO SEPTEMBER 30, 1934 (Nos. 105933-106560)

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INTRODUCTORY STATEMENT

This inventory, No. 120, is a record of the plant material received by the Division of Plant Exploration and Introduction from July 1 to September 30, 1934 (nos. 105933-106560).

Particular attention should be called to the introduction of seeds of 135 wheat crosses from Australia (nos. 106026-106053, 106146-106180, 106183-106188, 106192-106229, 106295-106310, 106315-106326), presented by the Director of Plant Breeding, Sydney, New South Wales. These crosses, in which American varieties appear frequently as one of the parents, were made chiefly at the Wagga Experiment Farm, Bomen, and their introduction into this country is a contribution to the plant materials available to Department specialists.

Also worthy of special note, and from the same part of the world, are seeds of an interesting lot of dry-land plants, including several native forage grasses (nos. 106467-106482). These were collected in semiarid central Australia and will be tested in the drier portions of the United States where the winters are not too severe. A number of forage grasses from desert regions likewise are included in a collection of miscellaneous seeds from South Africa (nos. 106073-106100), presented by the McGregor Museum at Kimberley, Cape Colony.

Tubers of 25 native Peruvian varieties of the potato (nos. 106390-106414) were presented by the Estación Experimental Agrícola, La Molina, Lima. Coming as these do from the general region where the potato is believed to have had its origin, this lot of tubers will have especial interest for plant breeders.

The Director of the Station Experimentale de Kisozi, Ruanda-Urundi, Africa, has sent in seeds (nos. 106452-106461) of native leguminous plants, suitable for testing as cover crops in the southern United States. All of these, with one exception, appear never before to have been introduced into this country.

The botanical determinations have been made and the nomenclature determined by Paul Russell, who has had general supervision of this inventory.

B. Y. MORRISON,
Principal Horticulturist, in Charge.

DIVISION OF PLANT EXPLORATION AND INTRODUCTION,
Washington, D. C., April 24, 1937.



INVENTORY¹

105933 to 105935. CYNODON spp. Poaceae. Kweek grass.

From the Union of South Africa. Seeds and plants presented by I. B. Pole Evans, Chief, Division of Plant Industry, Department of Agriculture, Pretoria. Received July 9, 1934.

105933. CYNODON sp.

Plants of a cold-resistant variety collected at nearly 6,000 feet altitude in the high country around Johannesburg.

105934. CYNODON sp.

Plants collected near Vereening, at nearly 3,000 feet altitude.

105935. CYNODON sp.

Seed from the Rietondale Pasture Station, Pretoria.

105936 to 105943.

From the Union of South Africa. Seeds presented by Ellis Thomas, School of Agriculture, Grootfontein, Middleburg Cape. Received July 9, 1934.

A collection of plants native to South Africa, introduced for Department specialists.

105936. ATRIPLEX HORTENSIS L. Chenopodiaceae. Garden orach.

Vaalbrak.

105937. EURYOPS MULTIFIDUS (Thunb.) DC. Asteraceae.

A stout bush a foot or more high, with linear-filiform leaves one-half to 1½ inches long and numerous small yellow flower heads on slender stems an inch long.

105938. PEGOLETTIA sp. Asteraceae.

Members of this genus are small, rigid, shrubby plants with yellow flower heads.

105939. PENTZIA SPHAEROCEPHALA DC. Asteraceae.

A rigid twiggy shrub with long erect branches and triad leaves an inch or more long with linear lobes. The yellow flower heads are half an inch across.

105936 to 105943—Continued.

105940. PHYMASPERMUM PARVIFOLIUM (DC.) Benth. and Hook. Asteraceae.

A rigid, much-branched shrub, 1 to 2 feet high, with thinly silky tufted linear leaves up to an inch long and chrysanthemumlike flowers having reddish or yellow disk flowers and white rays. It is said to be a valuable pasture plant for sheep.

For previous introduction see 93291.

105941. SALSOLA GLABRESCENS Burtt-Davy. Chenopodiaceae.

A dwarf shrub 1 to 3 feet high, with very small ovate or triangular, spirally arranged leaves and inconspicuous flowers.

105942. TETRAGONIA ARBUSCULA Fenzl. Aizoaceae.

A much-branched, semishrubby perennial with fleshy leaves less than 1 inch long, varying from linear to ovate-oblong. The small inconspicuous flowers are borne in leafy racemes and are followed by 3- to 4-winged nutlike fruits.

For previous introduction see 91238.

105943. TRIPTERIS PACHYPTERIS Harv. Asteraceae.

A bushy shrub 1 to 3 feet high, with alternate linear leaves, entire or 3-toothed, and numerous small flower heads.

105944. SACCHARUM OFFICINARUM L. Poaceae. Sugarcane.

From the Dominican Republic. Cuttings presented by James C. Scarffe, San Pedro de Macoris. Received July 14, 1934.

Porvenir-30. An erect vigorous variety which becomes 7 to 9 feet high. It matures in 5 months, is fairly drought resistant, and has never been seen with mosaic.

Introduced for the use of Department specialists working with sugarcane.

105945 to 105949. IPOMOEA BATATAS (L.) Lam. Convolvulaceae. Sweetpotato.

¹ 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 Plant Exploration and 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.

105945 to 105949—Continued.

From the Union of Soviet Socialist Republics. Tubers presented by V. P. Alekseev, Chief, Foreign Plant Introduction, Leningrad. Received July 19 and 23, 1934.

A collection of tubers grown at the Institute of Applied Botany, Sukhum; introduced for the use of Department specialists.

105945. N-85. A creamy white, yellow-fleshed variety with moist flesh of excellent quality. The large tubers are short, smooth, of very good and regular shape.

105946. N-172.

105947. N-82. A heavy-yielding yellow-skinned, orange-fleshed variety of exceedingly high quality with a honey sweetness and aroma.

105948. N-67. **105949.** N-25.

105950 to 105954. NICOTIANA TABACUM L. Solanaceae. Common tobacco.

From Colombia. Seeds presented by the Director, Ministerio de Agricultura y Comercio, Bogotá. Received July 9, 1934.

A collection of native tobacco types introduced for the use of Department specialists.

105950. [No data.]

105951.

105952.

105953. *Burley* variety.

105954. No. 12.

105955. INODES CAUSIARUM O. F. Cook. Phoenicaceae.

From Puerto Rico. Seeds presented by T. B. McClelland, Director, Agricultural Experiment Station, Mayaguez. Received July 6, 1934.

A palm which becomes 50 feet high, with a white trunk 2 feet in diameter and palmately divided leaves about 12 feet wide. Most of the palm-leaf hats made in Puerto Rico are from the leaves of this palm. This species of palm has proved hardy in Florida and deserves a wide distribution because of its striking beauty when young as well as when old.

For previous introduction see 96489.

105956. NICOTIANA TABACUM L. Solanaceae. Common tobacco.

From Peru. Seeds presented by Ing. J. A. Ocampo, Director, Granja Escuela del Cuzco, Kcaira. Received July 10, 1934.

A native tobacco with pink flowers, found at 10,000 feet altitude in the vicinity of Cuzco.

105957 to 105959. CITRUS spp. Rutaceae.

From Palestine. Budsticks presented by S. H. Holzman, Rehovoth. Received July 16, 1934.

105957. *CITRUS MEDICA L.* Citron.

Yemen citron. Apart from its importance for religious purposes, this citron is sweet and has a very pleasant flavor.

105958. *CITRUS SINENSIS (L.) Osbeck.* Orange.

Avana.

105959. *CITRUS SINENSIS (L.) Osbeck.* Orange.

Avana blood.

105960 and 105961. NICOTIANA TABACUM L. Solanaceae. Common tobacco.

From Brazil. Seeds presented by the Ministerio da Agricultura, Industria e Comercio, Campo de Sementes Bragantina, Tracuateua. Received July 6, 1934.

Locally grown strains introduced for the use of Department specialists.

105960. *NICOTIANA TABACUM L.*

Americano tracueteua.

105961. *NICOTIANA TABACUM L.*

S. Gauçolo.

105962. RUDBECKIA HIRTA L. Asteraceae. Black-eyed-susan.

From Texas. Seeds purchased from C. F. Wagner, Houston. Received July 2, 1934. Introduced for genetical studies.

105963 to 106016. HIBISCUS ROSA-SINENSIS L. Malvaceae. Chinese hibiscus.

From Puerto Rico. Cuttings presented by H. Atherton Lee, Director, Agricultural Experiment Station, Mayaguez. Received July 20, 1934.

105963. *A g n e s* **105987.** *Wilhelmina Tenny.*
Gault No. 1.

105964. *A g n e s* **105988.** *Yellow.*
Gault No. 2.

105965. *Cristine.* **105989.** 729.

105966. *Common* **105990.** 1142.
P. R.

105967. *Dr. Britton.* **105991.** 1234.

105968. *Flame.* **105992.** 1422.

105969. *Florence* **105993.** 1423.
McClelland.

105970. *Frances* **105994.** 1431.
Horne.

105971. *H. No. 11.* **105995.** 1435.

105972. *H. 233. 1.* **105996.** 1443.

105973. *H. 205. 2.* **105997.** 1447.

105974. *Heylman.* **105998.** 1537.

105975. *J e a n* **105999.** 1645.
Whitemore.

105976. *Katherine* **106000.** 1735.
Garrett.

105977. *Lily.* **106001.** 1845.

105978. *Lily* × **106002.** 1929.
M. M.

105979. *Marvin.* **106003.** 1946.

105980. *Mary Mc-* **106004.** 2029.
Clelland.

105981. *Minnie* **106005.** 2030.
Troutman.

105982. *P. 1.* **106006.** 2108.

105983. *P. 2.* **106007.** 2130.

105984. *P. 11.* **106008.** 2228.

105985. *Pink Wolf's* **106009.** 2230.
Lair.

105986. *St. Thom-* **106010.** 2232.
as Yellow.

106011. 2413.

106012. 2631.

106013. 2673.

106014. 2968.

106015. 2971.

106016. 3160.

106017. IPOMOEA BATATAS (L.) Lam. Convolvulaceae. Sweetpotato.

From Australia. Roots presented by H. Wenholtz, Director of Plant Breeding, Department of Agriculture, Sydney New South Wales. Received July 21, 1934.

Hawaii. From the Grafton Experiment Farm.

106018. ICHTHYOMETHIA PISCIPULA (L.)
Hitchc. Fabaceae.

From the Virgin Islands. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received July 18, 1934.

An attractive leguminous shade tree which becomes 50 feet high, with a spreading habit and large pinnate leaves. The large racemes of pale-pink flowers appear before the leaves and somewhat resemble those of the black locust.

For previous introduction see 99336.

106019. PRUNUS SARGENTII Rehder.
Amygdalaceae. Sargent cherry.

From Jamaica Plain, Mass. Seeds presented by the Arnold Arboretum. Received July 23, 1934.

A tall handsome tree, native to northern Japan, up to 75 feet high, with smooth, dark-brown bark and ovate or ovate-lanceolate sharply serrate leaves from 1 to 5 inches long. The single pink flowers, up to 1½ inches wide, are in few-flowered clusters, and the black fruits are about the size of peas.

For previous introduction see 93847.

106020. BRACHYPODIUM PINNATUM (L.)
Beauv. Poaceae. Grass.

From Italy. Seeds presented by Dr. Mario Calvino, San Remo. Received July 18, 1934.

A perennial grass which is used for grazing and for hay in Italy.

For previous introduction see 89820.

106021 to 106024. IRIS spp. Iridaceae.

From Turkey. Roots presented by Harold T. Pence, American Mission, Gaziantep. Received July 25, 1934.

106021. IRIS HISTRIOIDES Foster.

A bulbous iris of the Xiphium section, native to Asia Minor, with one or two leaves that appear with or after the flowers. The flowers, over 4 inches across, are vivid blue except for the triangular white patch on the upper part of the falls.

106022. IRIS SUSIANA L.

An Oncocycclus iris, with narrowly sword-shaped leaves 6 to 9 inches long and one or two flowers veined and dotted with brown black on a brownish-white ground. Native to Asia Minor and Iran.

106023. IRIS PERSICA L.

A short-stemmed iris of the section Juno, native to the mountainous regions of Asia Minor. The four to five linear-complicate leaves are barely 2 to 3 inches long at flowering time, becoming a foot long ultimately. The flowers are pale lilac with a dark-purple blotch at the top of the falls, an orange keel, and purple lines and spots.

106024. IRIS LUPINA Foster.

An Oncocycclus iris with a fleshy, creeping rhizome and about six erect narrow leaves 9 inches or more high. The stem, 6 inches high, bears a single flower with falls and standards greenish yellow marked with brownish-red veins. Native to Asia Minor.

106025. (Undetermined.)

From Burma. Seeds presented by Winfield H. Scott, American consul, Rangoon. Received July 23, 1935.

Received as *Cycas siamensis*, but the seeds appear to be of some leguminous plant allied to Dalbergia.

106026 to 106053. TRITICUM AESTIVUM
L. Poaceae. Common wheat.

From Australia. Seeds presented by H. Wenholz, Director of Plant Breeding, Department of Agriculture, Sydney, New South Wales. Received July 27, 1934.

A collection of wheat crosses, grown at the Experiment Farms Cowra and Wagga, New South Wales, and introduced for the use of Department specialists.

106026. Bowmen × Federation. C. 8738.
From Cowra.

106027. Canberra × Hard Federation seln × Clarendon. C. 4329. From Wagga.

106028. Canberra × Hard Federation seln × Clarendon. C. 5902. From Wagga.

106029. Federation × Dart's Imperial. C. 5503. From Cowra.

106030. Federation × Dart's Imperial. C. 5831. From Wagga.

106031. Federation × Galgalos. C. 5699.
From Cowra.

106032. Federation × Hope × Federation. C. 9736. From Cowra.

106033. Federation × Hope × Federation. C. 9737. From Cowra.

106034. Federation × Khaphi. C. 4919.
From Wagga.

106035. (Federation × Nabawa) 6. C. 9366. From Cowra.

106036. (Galgalos × Bena × Federation). C. 9802. From Cowra.

106037. (Galgalos × Federation × Aus- sia) 5. C. 10-1-2.

106038. (Galgalos × Federation × Aus- sia). C. 10-1-1.

106039. (Galgalos × Federation × Aus- sia). C. 10-7-1.

106040. (Galgalos × Federation × Aus- sia). C. 10-7-2.

106041. (Galgalos × Federation × Fed- eration). C. 9745. From Cowra.

106042. Hard Federation × Mudgee Mill- ing Co. C. 5891. From Wagga.

106043. Hard Federation × Mudgee Mill- ing Co. × Sands. C. 5839. From Wagga.

106044. Hard Federation seln × Claren- don. C. 9079. From Wagga.

106045. Hard Federation seln × Claren- don. C. 9084. From Wagga.

106046. Hard Federation × Wandilla. C. 9790. From Cowra.

106047. Nabawa × Federation. C. 9863.
From Cowra.

106048. (Nabawa × Federation × Mar- tin × Sonora × Sonora) 5. From Cowra.

106049. (Riverina × Federation) 5. From Cowra.

106050. Wandilla × Hard Federation. C. 4377. From Cowra.

106051. Wandilla × Hard Federation. C. 4377. From Wagga.

106052. Wandilla × Hard Federation. C. 5903. From Wagga.

106053. Wandilla × Hard Federation. C. 5903. From Cowra.

106054. ALLIUM SP. Liliaceae.

From Spain. Seeds presented by Miguel Echeagaray, agricultural attaché, Spanish legation, Washington, D. C. Received July 25, 1934.

Bambosa. A very early maturing Spanish onion.

106055 to 106072.

From the Union of South Africa. Trees purchased from H. E. V. Pickstone & Bro., Simondium, Cape of Good Hope. Received July 30, 1934.

106055 to 106063. AMYGDALUS PERSICA L. Amygdalaceae. Peach.

106055. *Constantia.*

106056. *Rimer.*

106057. *Schoongezicht.*

106058. *White Parvie.*

106059. *Briggs Red May.*

106060. *Van Rensburg.*

106061. *Brook.*

106062. *Killiekrankie.*

106063. *Shackelford.*

106064. AMYGDALUS PERSICA NECTARINA Ait. Amygdalaceae. Nectarine.

Albert.

106065 and 106066. MALUS SYLVESTRIS Mill. Malaceae. Apple.

106065. *Granny Smith.*

106066. *Versfeld's.*

106067 and 106068. PRUNUS ARMENIACA L. Amygdalaceae. Apricot.

106067. *Early Cape.*

106068. *Old Cape.*

106069 to 106072. PYRUS COMMUNIS L. Malaceae. Common pear.

106069. *Sweet Safraan.*

106070. *December.*

106071. *Tongres.*

106072. *Winter Safraan.*

106073 to 106100.

From the Union of South Africa. Seeds presented by the McGregor Museum, Kimberley. Received July 18, 1934.

106073 to 106075. ALOE spp. Liliaceae.

106073. ALOE PRETORIENSIS Pole Evans.

An aloe with dense rosettes of tapering leaves, usually withered at the red tips, and a stoutish stem 4 to 5 inches in diameter. The dark-brown to black stem is extremely rough and clothed throughout its entire length by the remains of withered leafstalks. The most distinctive feature of the plant is its tall branched inflorescence with dense racemes of bright-scarlet flowers.

For previous introduction see 103101.

106074. ALOE sp.

106075. ALOE sp.

106076. ARCTOTIS STOCHADIFOLIA Berzius. Asteraceae.

A bushy composite from the Cape of Good Hope, which has long hairy branches with whitish hairy leaves and large showy orange-colored flower heads.

For previous introduction see 64169.

106073 to 106100—Continued.

106077. STAPELIA sp. Asclepiadaceae.

106078. CELTIS RHAMNIFOLIA Presl. Ulmaceae.

A tree about 20 feet high, with smooth, gray bark, ovate, abruptly acuminate leathery leaves, and inconspicuous flowers. Native to South Africa.

106079. CERATOTHECA TRILOBA E. Mey. Pedaliaceae.

An erect annual plant up to 6 feet high. The obtusely quadrangular stems are hairy, and the coarsely crenate leaves, 1 to 6 inches long, vary from broadly cordate and 3-lobed near the base to lanceolate and sparingly crenate at the top of the plant. The solitary axillary flowers, 2 to 3 inches long, are lilac streaked with purple, and the loosely pubescent capsules, an inch long, have two horns at the tip.

For previous introduction see 103104.

106080 to 106082. CLEMATIS spp. Ranunculaceae.

106080. CLEMATIS BRACHIATA Thunb.

A climbing vine, native to southern Africa, with bipinnately- or tripinnately-parted leaves having ovate-toothed leaflets. The fragrant white flowers, 1 to 2 inches across, are borne in elongated panicles and are followed by orbicular margined fruits with long feathery tails.

For previous introduction see 94239.

106081. CLEMATIS sp.

106082. CLEMATIS sp.

106083. CUCUMIS sp. Cucurbitaceae.

106084. DIGITARIA sp. Poaceae.

106085. PAPPOPHORUM CENCHROIDES Licht. Poaceae. Grass.

A hairy, tufted, perennial grass, with stems 1 to 3 feet tall and narrow acuminate leaves 3 to 8 inches long. Native to the Union of South Africa. Received as *Enneapogon mollis*, now considered a synonym of this species.

106086 to 106090. ERAGROSTIS spp. Poaceae. Grass.

106086. ERAGROSTIS BRIZANTHA Nees.

An annual grass, native to sandy foothills in South Africa, with numerous stems and slender, flat, rigid leaves 1 to 2 inches long.

106087. ERAGROSTIS OBTUSA Munro.

A densely caespitose perennial grass, native to South Africa, with wiry stems 6 to 18 inches high and linear, long-pointed leaves 2 to 5 inches long.

106088. ERAGROSTIS POROSA Nees.

A grass native to South Africa.

106089. ERAGROSTIS SUPERBA Peyr.

An excellent native pasture grass, about 3 feet tall, with broad compressed spikelets.

For previous introduction see 60454.

106090. ERAGROSTIS sp.

106091. GAZANIA LONGISCAPA DC. Astera-ceae.

A nearly stemless perennial, native to the Cape of Good Hope. The white-woolly leaves are lanceolate and entire or pinnatisect with linear-lanceolate lobes

106073 to 106100—Continued.

and are 4 to 5 inches long. The showy yellow flower heads are borne on stems a foot long.

106092. *GREWIA CANA* Sond. Tilliaceae.

Rozijnfjes bos (raisin bush). A branching shrub up to 5 feet high, with yellow flowers and black fruits, found up to 4,000 feet altitude in South Africa. The small sweet fruits, each containing a large stone, are eaten by the natives.

For previous introduction see 27519.

106093. *HEURNIOPSIS DECIPiens* N. E. Brown. Asclepiadaceae.

A low succulent plant with 4-angled procumbent branches up to 3 inches long and half as thick and bell-shaped purple flowers 1 inch across, in small cymes. Native to South Africa.

106094. *HYPARRHENIA HIRTA* (L.) Stapf. Poaceae.

A perennial grass about 3 feet high, native to tropical and northern Africa.

For previous introduction see 89832.

106095. *RHIGOZEM BREVISPINOSUM* Kuntze. Bignoniaceae.

An erect shiny shrub 4 to 10 feet high. The oblong to oblanceolate leaves, 1 to 2 inches long, are tomentose and clustered at the tips of the branchlets, and the campanulate-funnel-shaped yellow or white flowers are less than an inch long and are axillary or fascicled in the leaf clusters.

For previous introduction see 103105.

106096. *RHUS* sp. Anacardiaceae.

106097. *SESAMUM CAPENSE* Burm. f. Pedalaceae.

An erect simple or branched herbaceous plant up to 6 feet high. The leaves are palmately divided into three to five ovate to linear leaflets 1 to 3 inches long, and the tubular violet flowers are 1 inch long with spreading lobes about an inch across. The plant can thrive in very dry situations where the annual rainfall is only 4 inches.

For previous introduction see 103106.

106098. *SOLANUM* sp. Solanaceae.

A plant with yellow, rather dry fruits, 1 inch in diameter.

106099. *VENIDIUM FASTUOSUM* (Jacq.) Stapf. Asteraceae.

A showy annual a foot or more high, with lanceolate or obovate irregularly lobed leaves 1 to 2 inches long and terminal solitary bright-orange flower heads up to 4 inches across. Native to South Africa.

106100. *VERNONIA* sp. Asteraceae.

106101 and 106102.

From the Philippine Islands. Seeds presented by Arthur F. Fischer, Director, Bureau of Forestry, Manila. Received July 26, 1934.

106101. *EUPHORIA DIDYMA* Blanco. Sapindaceae.

Alpay or *alupag*. A small attractive tree up to 50 feet high, with compound leaves made up of prominently veined leathery lanceolate leaflets and compact terminal clusters of small flowers followed by green warty fruits an inch in

106101 and 106102—Continued.

diameter having a shell-like rind and juicy sweet translucent pulp enclosing a large seed. Native to the Philippine Islands.

For previous introduction see 100648.

106102. *NEPHELIUM MUTABILE* Blume. Sapindaceae. **Pulassan.**

A small Malayan tree 30 feet high, with compound leaves composed of two to four pairs of oblong to elliptic, acuminate leaflets 5 to 10 inches long. The red fruit, commonly borne in small clusters, is about the size of a walnut, the pericarp is thick and covered with short blunt stout fleshy spines. The flesh (properly the aril) is translucent, whitish, and juicy and of sweet, slightly acidulous flavor. It contains a single large oblong seed.

For previous introduction see 60171.

106103. *DIOSCOREA* sp. Dioscoreaceae.

From Japan. Tubers intercepted at New York by inspectors of the Bureau of Plant Quarantine. Received August 6, 1934.

A small kidney-shaped white yam weighing about 8¼ ounces. To be grown for identification and to test its value as a food plant.

106104. *PHOENIX RECLINATA* Jacq. Phoenixaceae. **Senegal date palm.**

From Africa. Seeds collected by Prof. N. J. G. Smith, near Grahamstown, South Africa, and presented by John S. L. Gilmour, Royal Botanic Gardens, Kew. Received July 26, 1934.

A date palm 20 to 30 feet high, native to tropical and subtropical parts of Africa. The reclinate pinnate leaves are 6 to 9 feet long and have rigid green leaflets. The yellowish fruits with sweet edible pulp are half an inch long.

For previous introduction see 104217.

106105. *NIEREMBERGIA FRUTESCENS* Durien. Solanaceae. **Tall cupflower.**

From China. Seeds presented by the Director, Botanical Garden, Dr. Sun Yat-Sen's Memorial Park, Nanking. Received February 17, 1933. Numbered in July 1934.

A half-hardy perennial, usually self sowing, with slender flaxlike habit and masses of 2-inch, lavender-tinted white salver-shaped flowers produced freely from midsummer until frost. Native to Chile.

106106. *ACACIA GRAEFFAE* Willd. Mimosaceae.

From the Union of South Africa. Seeds presented by the McGregor Museum, Kimberley. Received July 25, 1934.

The *Kameel-doorn* of the Transvaal is a valuable tree for arid regions in the warm Temperate Zone. The ripe pods are eaten greedily by stock. The tree thrives in sandy soil, attains a large size, and the dark reddish-brown wood is used by the natives in making spoons, knife handles, etc.

For previous introduction see 94235.

106107 to 106109.

From Cuba. Seeds presented by Robert M. Grey, Superintendent, Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos. Received July 25, 1934.

106107 to 106109—Continued.

106107. *CELTIS SWARTZII* Planch.

An unarmed tree 25 to 45 feet high, native to the West Indies, with ovate-lanceolate, acuminate, serrate leaves 1 to 3 inches long and purple fruits one-third of an inch in diameter.

106108. *DILLENIA BURBIDGEI* (Hook. f.) Gilg. Dilleniaceae.

A small ornamental tree from Borneo with large leaves and very showy bright-yellow flowers 2 inches across.

For previous introduction see 66213.

106109. *DIOSPYROS HALESIODES* Griseb. Diospyraceae.

A Cuban tree with elliptic acute leaves about 1 inch long, hairy on both surfaces, and depressed-globose fruits 1 inch in diameter.

106110. *GARCINIA MANGOSTANA* L. Clusiaceae. **Mangosteen.**

From the Canal Zone. Seeds presented by J. E. Higgins, Director, Canal Zone Experiment Gardens, Summit. Received August 8, 1934.

106111. *BORASSUS FLABELLIFER* L. Phoenicaceae. **Palmyra palm.**

From Brazil. Seeds presented by Dr. Thomas Barbour, Harvard University, through Dr. Afranio Amaral, Butantan, São Paulo. Received August 8, 1934.

A large handsome palm, 60 to 70 feet high, with an unarmed ringed trunk and fan-shaped leaves 8 to 10 feet long. It is native to the dry coastal regions of Ceylon, thrives well in alkaline soil, and is said to be useful as a sand binder.

For previous introduction see 98487.

106112 to 106119.

From the Territories of Ruanda-Urundi, Belgian Congo. Seeds presented by J. B. Lejeune, Director, Station Experimentale de Kisozi. Received August 3, 1934.

106112. *ACACIA* sp. Mimosaceae.106113. *CASSIA* sp. Caesalpinaceae.

A small climbing shrub collected at 4,500 feet altitude in Urundi Territory.

106114 to 106116. *CROTALARIA* spp. Fabaceae.106114. *CROTALARIA* sp.106115. *CROTALARIA* sp.106116. *CROTALARIA* sp.106117. *ERIOSEMA MONTANUM* Baker. Fabaceae.

An erect perennial with trifoliolate leaves having ovate leaflets 1 to 2 inches long and axillary racemes of yellow flowers. Collected at 6,500 feet altitude in Urundi Territory. It is native to Ethiopia.

106118. *INDIGOFERA* sp. Fabaceae.

Collected at 6,500 feet altitude in Urundi Territory.

106119. *MEIBOMIA* sp. Fabaceae.

A semiwoody legume collected at 3,500 feet altitude in Urundi Territory.

106120 to 106141. *TRITICUM AESTIVUM* L. Poaceae. **Common wheat.**

From Australia. Seeds presented by Lindley Walker Wheat Co., Ltd., Sydney, New South Wales. Received August 7, 1934.

Samples of a collection of wheats exhibited at the Royal Agricultural Show, Sydney, in 1934.

106120. *Robin*. From Cowra, New South Wales. Weak flour.106121 to 106123. *Comeback* variety.

106121. From Carnamah, Western Australia. Strong white wheat.

106122. From Merridin, Western Australia. Best bushel, strong white wheat.

106123. From Grenfell, New South Wales. Best strong white wheat.

106124. *Commonwealth Champion* variety. From Cudal, New South Wales.106125 to 106127. *Dundee* variety.

106125. From West Wyalong, New South Wales. Medium strong flour wheat.

106126. From Grenfell, New South Wales.

106127. From Cudal, New South Wales. Best bushel of wheat.

106128. *Commonwealth Champion* variety. From Cudal, New South Wales. Medium strong white wheat.106129 to 106131. *Ford* variety.

106129. From Cudal, New South Wales. Medium strong white wheat.

106130. From Grenfell, New South Wales. Medium strong flour wheat.

106131. From Cootamundra, New South Wales. Best medium strong white wheat.

106132 to 106135. *Nabawa* variety.

106132. From Euchareena, New South Wales. Best weak flour wheat.

106133. From Euchareena, New South Wales. Best bushel of wheat.

106134. From Euchareena, New South Wales. White wheat other than strong or medium strong.

106135. From Goolgowi, New South Wales. Best bushel of wheat.

106136. *Petats Surprise* variety. From Barmedman, New South Wales. Soft white wheat.106137. *Ranes* variety. From Mungerbar, New South Wales. Soft white wheat.106138 to 106141. *Waratah* variety.

106138. From Cowra, New South Wales. Best bushel of weak flour wheat.

106139. From Euchareena, New South Wales. Weak flour wheat.

106140. From Euchareena, New South Wales. Best bushel of white wheat other than strong or medium strong.

106141. From Euchareena, New South Wales. Weak flour wheat.

106142 to 106145.

From the Philippine Islands. Seeds presented by Arthur F. Fischer, Director, Bureau of Forestry, Manila. Received August 7, 1934.

106142 to 106145—Continued.

106142. *ADONIDIA MERRILLII* Beccari. Palm. Phoenicaceae.

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 103976.

106143. *CARYOTA CUMINGII* Lodd. Palm. Phoenicaceae.

A palm, native to the Philippine Islands, with a tall stout spineless ringed trunk about 20 feet high crowned by a few spreading bipinnate leaves. The small globular fruits are purple.

For previous introduction see 103734.

106144. *LITCHI PHILIPPINENSIS* Radlk. Sapindaceae.

A Philippine relative of the lychee (*Litchi 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 leathery-like shell encloses a scant edible pulp in which is embedded a relatively large seed. This seed is roasted and eaten.

For previous introduction see 94064.

106145. *SAGUERUS PINNATUS* Wurm. Phoenicaceae. Sugar palm.

A handsome palm 20 to 40 feet high, with about 25 immense pinnate leaves and enormous bunches of fruit, the individual fruits being the size of an apple. A rich-flavored palm sugar is made from the sap which flows from the bruised fruitstalk.

For previous introduction see 99632.

106146 to 106180. *TRITICUM AESTIVUM* L. Poaceae. Common wheat.

From Australia. Seeds presented by H. Wenzholz, Director of Plant Breeding, New South Wales Department of Agriculture, Sydney. Received August 17, 1934.

A collection of common wheats, chiefly red-grained segregates of crosses of American and Australian varieties; introduced for the use of Department specialists.

106146. *Barwang* × (*Pentad* × *Marquis*). G-100-0.

106147. *Clarendon* × (*H.44* × *Marquis*). G-13-0.

106148. *Dan* × (*H.44* × *Marquis*). G-4-0.

106149. *Dan* × (*Pentad* × *Marquis*). G-10-0.

106150 to 106152. *Dundee* × (*H.44* × *Marquis*).

106150. G-10-0.

106151. G-59-0.

106152. G-69-0.

106153. (*Euston* × *Hope*) × *Federation*. C-3-G-5-4-0.

106154. *Florence* × (*H.44* × *Marquis*). G-100-0.

106155. *Ford* × (*Pentad* × *Marquis*). G-12-0.

106156. *Ford* × (*Pentad* × *Marquis*). G-61-0.

106146 to 106180—Continued.

106157. (*Gearyling* × *Cleveland*) × *Hope*. G-88-8-0.

106158. (*Gearyling* × *Cleveland*) × *Hope*. G-88-10-0.

106159. *H.44* × *Marquis* × *Nabawa*. G-401-0.

106160 to 106162. *Hope* × *Currawa*.

106160. G-147-4-0.

106161. G-240-44-0.

106162. G-240-45-0.

106163 to 106166. *Hope* × (*Currawa* × *Dundee*).

106163. G-1-6-0.

106164. G-52-6-0.

106165. G-59-3-0.

106166. G-232-6-0.

106167 to 106169. *Hope* × *Waratah*.

106167. c5-G-3-0-0.

106168. c5-G-7-0-0.

106169. c2-G-9-13-0.

106170. *Hope* × *Yandilla King*. c2-G-1-2-0.

106171. *Hope* × *Yandilla King*. c2-G-1-8-0.

106172. *Kenya* × *Reward*. F₃. Unselected.

106173. *Lawson* × (*H.44* × *Marquis*). G-18-0.

106174. *Nabawa* × (*H.44* × *Marquis*). G-7-0.

106175. *Pentad* × *Marquis* × *Dundee*. G-90-0.

106176. *Pentad* × *Marquis* × *Hard Federation*. G-17-0.

106177. *Pusa 4* × (*H.44* × *Marquis*). G-1-0.

106178. *Pusa 4* × *Pentad* × *Marquis*. G-0-0.

106179. *Waratah* × *Hope*. G-32-7-0.

106180. *Waratah* × *Hope*. G-63-1-0.

106181 and 106182.

From the Union of South Africa. Seeds presented by the McGregor Museum, Kimberley. Received August 11, 1934.

106181. *ACACIA STOLONIFERA* Burchell. Mimosaceae.

A spiny shrub said to have underground stoloniferous stems. The bipinnate leaves have 3 to 7 pairs of pinnae, each bearing 7 to 15 pairs of oblong-lanceolate leaflets. The stipular spines, in pairs, are spreading and are white with recurved brown tips. The heads of fragrant whitish flowers are followed by straight yellow obliquely striate pods. It is native to southern Africa.

For previous introduction see 94237.

106182. *OTHONNOPSIS* sp. Asteraceae.

A shrubby composite with yellow flowers.

106183 to 106185. *TRITICUM AESTIVUM* L. Poaceae. Common wheat.

From Australia. Seeds presented by H. Wenzholz, Director of Plant Breeding, New

PLANT MATERIAL INTRODUCED

106183 to 106188—Continued.

South Wales Department of Agriculture, Sydney. Received August 17, 1934.

A collection of common wheats, chiefly red-grained segregates of crosses of American and Australian varieties; introduced for the use of Department specialists.

106183. *Currawa* × (*Dundee* × *Marquillo*). G-12-0.

106184 to 106186. (*Dundee* × *H.44*) × *Marquis*.

106184. G-46-0.

106185. G-71-0.

106186. G-400-0.

106187. *Hope* × (*Currawa* × *Dundee*). G-55-7-0.

106188. *Hope* × (*Currawa* × *Dundee*). G-319-33-0.

106189. *TRIFOLIUM SUBTERRANEUM* L. Fabaceae. Subterranean clover.

From Australia. Seeds presented by F. H. Brunning Pty. Ltd., Melbourne, Victoria. Received August 17, 1934.

Early Strain.

106190. *AVENA SATIVA* L. Poaceae. Oats.

From the West Indies. Seeds purchased on the island of Martinique by W. A. Archer, Bureau of Plant Industry. Received July 26, 1934.

No. 2231. A variety said to have been introduced from France.

106191. *TRICHILIA EMETICA* Vahl. Meliaceae.

From Africa. Seeds presented by Dr. Guidotti, head of the Department of Agriculture of Eritrea, through Dr. Leon Croizat, New York. Received August 16, 1934.

A tree, native to tropical Africa, with pinnately compound leaves of 7 to 11 leaflets, 3 to 6 inches long, clusters of greenish flowers, and globose fruits an inch in diameter. An oil used in cooking and for soap making is obtained from the seeds.

For previous introduction see 77216.

106192 to 106229. *TRITICUM AESTIVUM* L. Poaceae. Common wheat.

From Australia. Seeds presented by H. Wenzholz, Director of Plant Breeding, New South Wales Department of Agriculture, Sydney. Received August 18, 1934.

A collection of common wheats, chiefly red-grained segregates of crosses from American and Australian varieties; introduced for the use of Department specialists.

106192 to 106197. *Clarendon* × *Hope*.

106192. G-11-0-2.

106193. G-11-0-3.

106194. G-37-0-1.

106195. G-37-0-2.

106196. G-295-0-0.

106197. G-316-0-0.

106198 to 106200. *Ford* × *Minturki*.

106198. G-0.

106199. G-1-0.

106192 to 106229—Continued.

106200. G-8-0.

106201 to 106203. *Geeralying* × *Cleveland* × *Hope*.

106201. G-88-0-4.

106202. G-124-15-0.

106203. G-223-7-0.

106204. *H.44* × *Marquis* × *Nabawa*. F₃.

106205. *H.44* × *Reward* × *Baringa*. F₃. Unselected.

106206. *H.44* × *Reward* × *Minflor*. F₃. Unselected.

106207. *Hope* × *Clarendon*. G-94-45-3.

106208 to 106213. *Hope* × *Currawa*.

106208. G-240-85-0.

106209. G-271-1-1.

106210. G-271-1-2.

106211. G-302-4-0.

106212. G-436-0-1.

106213. G-436-0-2.

106214. *Hope* × *Currawa* × *Dundee*. G-59-10-0.

106215. *Hope* × *Currawa* × *Dundee*. G-236-6-0.

106216. *Hope* × *Waratah*. G-29-14-0.

106217. *Kenya* × *Dundee* × *Florence*. F₃.

106218. *Kenya* × *Florence*. F₃. Selected.

106219. *Kenya* × *Florence* × *Dundee*. F₃.

106220. *Kenya* × *Ford*. F₃. Unselected.

106221. *Kenya* × *Pusa 4*. F₃. Unselected.

106222. *Nabawa* × *H.44* × *Marquis*. G-6-0.

106223. *Nabawa* × *H.44* × *Marquis*. G-32-0.

106224. *Pentad* × *Marquis* × *Hard Federation*. G-90-0.

106225 to 106229. *Waratah* × *Hope*.

106225. G-81-1-(L).

106226. G-85-5-(L).

106227. G-85-5-2.

106228. G-91-2-1.

106229. G-91-2-3.

106230 to 106248.

From New Zealand. Plants presented by H. R. Wright, Avondale, Auckland. Received August 21, 1934.

106230. *AMYGDALUS PERSICA* L. Amygdalaceae. Peach.

Gray seedling. An early, white-fleshed seedling of Elberta.

106231. *AMYGDALUS PERSICA NECTARINA* Ait. Amygdalaceae. Nectarine.

Riverhale. A white-fleshed cling, a cross between the *J. H. Hale* and the *John Rivers* nectarines.

106232. *AMYGDALUS PERSICA NECTARINA* Ait. Amygdalaceae. Nectarine.

Wright's orange nectarine. A second-generation seedling of *Paragon* peach × *Goldmine* nectarine.

106233 to 106236. *CITRUS LIMONIA* Osbeck. Rutaceae. Lemon.

106230 to 106248—Continued.

106233. *Doncaster*. A heavy-bearing Australian seedling.

106234. *Meyer cross*. A thornless cross between the *Lisbon* and the *Meyer* lemons.

106235. *Meyer thornless*. A thornless sport of the *Meyer* lemon.

106236. *Utility*. A sport of the *Sicily* lemon.

106237. DIOSPYROS sp. Diospyraceae.

Persimmon Charming. A persimmon of good quality.

106238. FRAGARIA sp. Rosaceae.
Strawberry.

Raspberry strawberry. Fruit of excellent quality.

106239. MALUS sp. Malaceae.

Biedisloe. A deep crimson crab apple, a cross between the *Delicious* apple and *Gorgeous* crab.

106240. MALUS SYLVESTRIS Mill. Malaceae.
Apple.

A *Delicious* seedling of excellent quality.

106241. MALUS sp. Malaceae.

Robert Nairn crab. Fruits small, orange yellow.

106242 to 106246. PRUNUS spp. Amygdalaceae.

106242. PRUNUS CERASIFERA Ehrh.

Beats Early. A very yellow cherry plum which can be cooked green.

106243. PRUNUS SALICINA × PISSARDI.

Haleardi. A heavy-bearing cross between the *Hale*, *Japanese* plum, and *Prunus cerasifera pissardi*.

106244. PRUNUS SALICINA Lindl.
Japanese plum.

Omega. A late-ripening, red-fleshed *Japanese* plum; the fruit keeps and ships well.

106245. PRUNUS SALICINA × CERASIFERA.

Lippiatt's Early. *Japanese* and *cherry-plum* cross.

106246. PRUNUS sp.

De Montford plum. A variety that bears well.

106247. PYRUS COMMUNIS L. Malaceae.
Common pear.

Beurre de Lindauer. Fruits large.

106248. PYRUS COMMUNIS L. Malaceae.
Common pear.

Lawton's Superb. A cross between the *Bartlett* and *Beurre s*.

106249 to 106251.

From British Guiana. Seeds presented by the Botanic Garden at Georgetown, through W. A. Archer, Bureau of Plant Industry. Received August 14, 1934.

106249. GUSTAVIA AUGUSTA L. Lecythidaceae.

No. 2348. A small evergreen tree, native to tropical America, which bears flowers 4 inches across, cream-white tinged with rose inside, and externally rose colored. The stamens form a circle in the

106249 to 106251—Continued.

center of the flower and are white at the base, with rosy filaments and yellow anthers.

For previous introduction see 98553.

106250. GUSTAVIA sp.

No. 2408. A small ornamental tree with showy yellow flowers.

106251. TALLISIA sp. Sapindaceae.

No. 2378. *Maurabali*. A tropical American tree with pinnate leaves and panicles of small flowers.

106252 and 106253. QUERCUS spp. Fagaceae.

From the Arboretum de Trang Bom, Cochinchina. Seeds collected by M. Poilane, Institut des Recherches Agronomiques de L'Indochine, Division de Botanique. Received August 21, 1934.

106252. QUERCUS sp.

106253. QUERCUS sp.

106254 to 106268.

From Palestine. Bulbs purchased from the American Colony Stores, Jerusalem. Received August 28, 1934.

106254 to 106267. IRIS spp. Iridaceae.

106254. IRIS AURANTICA Dinsm.

An iris of the section *Oncocyclus*, from the sandy regions in Palestine, with six nearly erect leaves 6 to 8 inches long and a bronze-yellow flower about 3 inches long, closely dotted with reddish brown.

106255. IRIS BASALTICA Dinsm.

A stout iris nearly 2 feet high, of the section *Oncocyclus*, with erect closely sheathing leaves a foot or more long and a flower with rounded falls and standards, closely veined and dotted with dark blue on a whitish ground. This has a taller stem and larger flowers than any other of the Palestine irises.

106256. IRIS BIGGERI Dinsm. **Bigger's iris.**

An *Oncocyclus* iris, about a foot high, with closely sheathing leaves 9 inches long. The large flower, 4 to 5 inches long, has reddish falls and whitish standards closely covered with purple veins. Native to rocky places in Palestine.

106257. IRIS GRANT-DUFFII Baker.

An iris of the section *Apogon*, found in swampy situations in Palestine. The stem is 6 inches high, while the narrow linear leaves are twice that height. The flower has greenish-yellow falls; the claw is veined with lilac on a yellowish-white ground.

106258. IRIS HAURANENSIS Dinsm.

An *Oncocyclus* iris with a compact rhizome and a stem 12 to 16 inches high. The erect narrow leaves, closely sheathing to the top, are about 5 inches long. The flower is white, so closely veined and dotted with dark purple that the ground color is almost entirely hidden. Native to Palestine.

106259. IRIS HELENÆ Barbey.

A slender-stemmed iris of the section *Oncocyclus*, with falcate leaves 3 to 4 inches long and a pale-lilac flower with fine red-brown veins. Native to the desert regions between Palestine and Egypt.

106254 to 106268—Continued.

106260. IRIS HERMONA Dinsm.

An iris, section *Oncocyclus*, with eight partly evergreen leaves a foot long that appear very early. The large flower, often 6 inches across, has falls veined with lilac and spotted pink on a creamy ground and standards thickly lined with faint purple on a white ground. Native to rocky places in Palestine.

106261. IRIS KASRUWANA Dinsm.

An iris of the section *Oncocyclus*, a foot or more high, with about eight acute leaves 6 to 8 inches long. The falls are dotted and veined with embossed dark-purple spots on a whitish ground, and the standards are minutely dotted and lined with purple on a white ground. Native to the mountains of Palestine.

106262. IRIS MELANOSTICTA Bornm.

An Apogon iris, native to Syria, with a caespitose-branching rhizome, leaves up to 32 inches long, and 1-flowered stems 6 inches high. The yellow falls are veined and spotted with black violet, and the standards are pale yellow. This iris resembles *Iris grant-duffii*, but it grows in drier soil and the flowers are spotted and appear much later.

106263. IRIS NAZARENA Dinsm.

An *Oncocyclus* iris from Palestine with a short rhizome, very long stolons, and a stout stem 12 to 20 inches high. The eight spreading, fanlike leaves are 9 to 16 inches long, and the large flower is often 6 inches wide. The falls are covered with embossed red-brown spots on a creamy ground, and the standards are heavily marked with blue veins and purple dots on a white ground.

106264. IRIS PALAESTINA (Baker) Bolss.

A winter-flowering Juno iris closely related to *Iris caucasica*, with falcate leaves 3 to 9 inches long and a very short stem bearing one to three flowers. These are pale yellow tinged with lilac, the outer segments are oblong with auriculate claws, and the narrowly lanceolate inner segments are very minute. Native to Palestine.

For previous introduction see 80869.

106265. IRIS SAMARIAE Dinsm. **Samaria iris.**

An *Oncocyclus* iris from rocky hillsides in Palestine with a stout stem 12 to 16 inches high, leafy throughout. The 8 to 13 nearly erect, fan-shaped leaves are 8 to 16 inches long. The flower, about 5 inches in diameter, is purple lined and dotted on a creamy ground.

106266. IRIS VARTANII Foster.

The two slender leaves of this iris, of the section *Xiphium*, are 8 to 9 inches long, and the stem is very short. The solitary flower has slaty-lilac outer segments, while the inner ones, erect and narrow, are pale lilac. Native to Palestine.

106267. IRIS WESTII Dinsm.

A short-stemmed *Oncocyclus* iris, often with two stems and six gray-green, slightly falcate leaves 6 to 8 inches long. The large flower, resembling that of *Iris hermona*, has creamy-white falls covered closely with purple dots and pale-lilac standards covered with lilac-blue veins. Native to Palestine.

106254 to 106268—Continued.

106268. STERNBERGIA CLUSIANA Ker-Gawl. **Amaryllidaceae.**

A low-growing plant, native to Asia Minor, with short, 1-flowered stems. The pale-yellow, funnel-shaped flowers, about an inch long, are produced in the fall, and the narrow linear leaves, 3 to 4 inches long, appear in the spring.

106269 to 106273.

From China. Seeds collected at Patung, Western Hupeh, and presented by H. H. Chung, National Wu-Han University, Wuchang, Hupeh. Received August 22, 1934.

106269. BETULA sp. **Betulaceae. Birch.**106270. ELAEAGNUS sp. **Elaeagnaceae.**106271. OSMANTHUS sp. **Oleaceae.**106272. PRUNUS sp. **Amygdalaceae.**106273. SALIX sp. **Salicaceae. Willow.**106274. ELEOCHARIS TUBEROSA (Roxb.) Schult. **Cyperaceae. Waternut.**

From China. Tubers presented by G. Weidman Groff, Lingnan University, Canton. Received August 31, 1934.

Variety *Ma Tai*. A Chinese vegetable which grows very much in the same manner as wet-land rice. The corms or tuberous rhizomes are mostly eaten raw, but are also sliced or shredded in soups and in meat and rice dishes. The plants, which are grown on muck or clay soil, need a hot summer to mature.

For previous introduction see 102620.

106275 to 106294. SACCHARUM OFFICINARUM L. **Poaceae. Sugarcane.**

From Hawaii. Cuttings presented by the experiment station, Hawaiian Sugar Planters' Association, Honolulu. Received August 27, 1934.

Introduced for the use of Department specialists.

106275. *Akoki*. Station No. 22.106276. *Iliopua*. Station No. 29.106277. *Kea*. Station No. 31.106278. *Maiakoiko*.106279. *Manahu*. Station No. 40.106280. *Moano*. Station No. 48.106281. *Ohia*. Station No. 1.106282. *Pakaweli*. Station No. 2.106283. *Piliimai*. Station No. 60.106284. *Uala*. Station No. 61.106285. *Ulukui*. Station No. 67.

106286. Station No. 6.

106287. Station No. 24.

106288. Station No. 26.

106289. Station No. 36.

106290. Station No. 38.

106291. Station No. 39.

106292. Station No. 41.

106293. Station No. 43.

106294. Station No. 71.

106295 to 106310. TRITICUM AESTIVUM
L. Poaceae. Common wheat.

From Australia. Seeds presented by H. Wenholz, Director of Plant Breeding, Department of Agriculture, Sydney, New South Wales. Received August 28, 1934.

A collection of wheat crosses from the Wagga Experiment Farm, which have Federation as one of the parents and which mature somewhat later than Federation.

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| 106295. <i>Aussie</i> . G-6659. | 106303. <i>Gresley</i> . C-6489. |
| 106296. <i>Bena</i> . C-6662. | 106304. <i>Major</i> . C-2579. |
| 106297. <i>Canberra</i> . C-6665. | 106305. <i>Nizam</i> . C-6680. |
| 106298. <i>Canimbla</i> . C-3199. | 106306. <i>Ranee</i> . C-6683. |
| 106299. <i>Duchess</i> . C-3569. | 106307. <i>Riverina</i> . C-6685. |
| 106300. <i>Dundee</i> . C-3949. | 106308. <i>Sepoy</i> . C-9146. |
| 106301. <i>Duri</i> . C-6485. | 106309. <i>Union</i> . C-6687. |
| 106302. <i>Ghurka</i> . C-9302. | 106310. <i>Wandilla</i> . C-6688. |

106311 to 106314. LONCHOCARPUS spp. Fabaceae.

From British Guiana. Cuttings collected in the Botanic Garden, Georgetown, by W. A. Archer, Bureau of Plant Industry. Received August 14, 1934.

106311. *LONCHOCARPUS* sp.
No. 2339. *Black Haiari*.
- 106312 and 106313. *LONCHOCARPUS NICOU* (Aubl.) DC.

A woody vine climbing to the tops of trees, with alternate compound leaves made up of about seven sharp-pointed leaflets and axillary spikes of pea-shaped purple flowers. It is native to the Guianas and Peru.

For previous introduction see 97923.

106312. No. 2415. *White Haiari*.
106313. No. 2416. *Black Haiari*.
106314. *LONCHOCARPUS* sp.
No. 2418. *White Haiari*.

106315 to 106326. TRITICUM AESTIVUM
L. Poaceae. Common wheat.

From Australia. Seeds grown at the Wagga Experiment Farm, Bomen, New South Wales, and presented by H. Wenholz, Director of Plant Breeding, Department of Agriculture, Sydney, New South Wales. Received August 30, 1934.

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| 106315. <i>Boomey</i> . C-9304. |
| 106316. <i>Bundar</i> . C-5835. |
| 106317. <i>Clarendon</i> . C-6667. |
| 106318. <i>Cookapoi</i> . C-3494. |
| 106319. <i>Dan</i> . C-3851. |
| 106320. <i>Gullen</i> . C-2895. |
| 106321. <i>Mallan</i> . C-4889. |
| 106322. <i>Morley</i> . C-5211. |
| 106323. <i>Stockman</i> . C-5854. |
| 106324. <i>Tuela</i> . C-4199. |

106315 to 106326—Continued.

106325. *Yetna*. C-3693.
106326. *Zealand*. C-190.

106327 to 106331.

From Australia. Seeds presented by C. A. Gardner, Government botanist, Department of Agriculture, Perth, Western Australia. Received August 25, 1934.

106327. CALOTHAMNUS GILESII F. Muell. Myrtaceae.

A graceful evergreen shrub with linear terete leaves and loose lateral clusters of reddish flowers. Native to Australia.

For previous introduction see 77277.

106328. CONOSPERMUM BRACTEOSUM Meisn. Proteaceae.

An undershrub with usually simple stems 1 to 2 feet high and petioled basal leaves having 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 bear small white or violet flowers densely covered with silky white hairs. It is native to Western Australia.

For previous introduction see 93835.

106329. HIBISCUS HUEGELII Endl. Malvaceae.

A tall shrub, native to Australia, with 3- to 5-lobed coarsely toothed leaves 1 to 3 inches long and large violet-purple flowers.

For previous introduction see 95327.

106330. LEPTOSPERMUM SPINESCENS Endl. Myrtaceae.

A low spiny evergreen shrub with very small lanceolate leaves one-fourth of an inch long and small solitary axillary white flowers. Native to southwestern Australia.

106331. PILEANTHUS PEDUNCULARIS Endl. Myrtaceae.

A low shrub with opposite fleshy semi-terete leaves crowded at the ends of the branches and small purplish flowers in the leaf axils.

106332 to 106343. EUCALYPTUS spp. Myrtaceae.

From Australia. Seeds presented by F. H. Baker, Richmond, Victoria. Received August 25, 1934.

106332. EUCALYPTUS AMYGDALINA Labill. *Almond eucalyptus*.

Peppermint gum. An Australian tree up to 300 feet high, with lanceolate leaves 4 inches long, crowded umbels of small flowers, and hemispheric fruits one-fourth of an inch broad. The leaves have a strong odor of peppermint and are rich in oil.

For previous introduction see 93228.

106333. EUCALYPTUS CALOPHYLLA Lindl.

Variety *Rosea*. A form with pink flowers.

106334. EUCALYPTUS CORYMBOSA J. E. Smith.

A medium-sized evergreen tree, native to Australia, with leathery lanceolate leaves and large corymbs of fragrant yellowish-white flowers.

106332 to 106343—Continued.

For previous introduction see 80066.

106335. EUCALYPTUS DIVERSICOLOR F. Muell. Karri gum.

A tall tree, up to 350 feet in height, native to Western Australia, straight in habit and a fairly rapid grower. The very dense and elastic wood is considered superior timber, being used by wheelwrights and for shipbuilding. The tree prefers a moist climate and is quite frost resistant, but it does not endure dry heat.

For previous introduction see 48988.

106336. EUCALYPTUS DIVES Schauer.

A small tree up to 12 feet in height, native to New South Wales. The large cordate leaves are opposite, but tend to become alternate toward the tips of the branches. The flowers are borne in dense axillary umbels.

For previous introduction see 75624.

106337. EUCALYPTUS ERYTHROCORYS F. Muell.

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, and the large flowers, in axillary clusters, have bright red fleshy caps over the buds and the long stamens are yellow. The ribbed, hemispherical fruits are 1 to 2 inches long. It is native to Western Australia.

For previous introduction see 93387.

106338. EUCALYPTUS GIGANTEA Hook. f.

A large tree often 300 feet high and 30 feet in diameter, with white bark and smooth glaucous branchlets. The ovate-lanceolate leaves are 4 to 6 inches long, and the small flowers, numerous in dense heads, are followed by spherical fruits. It is native to Australia.

For previous introduction see 90695.

106339. EUCALYPTUS LEHMANNI (Schauer) Preiss. Lehmann gum.

A large shrub or small tree, with rough reddish bark peeling off in irregular sheets. The greenish-yellow flowers open from July to September. Native to Western Australia.

For previous introduction see 104167.

106340. EUCALYPTUS MARGINATA J. E. Smith.

An Australian shrub or small tree, often clear of branches for two-thirds of its height. The hard durable wood is used for timber, piles, and railway ties. The tree will grow in a great variety of soils, but prefers moist, well-drained situations.

For previous introduction see 86402.

106341. EUCALYPTUS MICROCORYS F. Muell.

A tall tree with persistent wrinkled bark, thin broadly lanceolate leaves, and small white flowers. The yellowish timber is especially useful for ballroom floors because of its greasy nature. Native to Australia.

106342. EUCALYPTUS PREISSIANA Schau.

A shrubby eucalyptus about 8 feet high, with rigid branchlets, shining green, oblong-elliptic leaves nearly 4 inches long, and small yellowish flowers in axillary clusters. Native to southern Australia.

For previous introduction see 104171.

106332 to 106343—Continued.

106343. EUCALYPTUS PYRIFORMIS Turcz.

Red Mallet. A shrub or small tree, found in Western and southern Australia, where it attains a height of 8 to 10 feet. The very thick narrow leaves are rarely more than 3 inches long, and the large flowers are red when fresh. The yellowish-white timber is hard, heavy, and durable.

For previous introduction see 48997.

106344 to 106363.

From British Guiana. Material collected by W. A. Archer, Bureau of Plant Industry. Received August 27, 1934.

Unless otherwise mentioned, the following were introduced as seeds.

106344. ANACARDIUM GIGANTEUM Hance. Anacardiaceae.

No. 2324. A tropical tree with alternate, obovate, thick leaves about 5 inches long and small, kidney-shaped fruits. Native to Brazil.

106345. ANANAS SATIVUS Schult. f. Bromeliaceae. Pineapple.

No. 2353. Seedling of the *Montserrat* pineapple.

106346. CAOUCCIA COCCINEA Aubl. Combretaceae.

No. 2373. A woody climber that reaches the tops of the tallest trees in British Guiana. The rigid ovate alternate leaves are long-acuminate, and the showy red flowers are in long terminal spikes.

106347. CARAPA GUIANENSIS Aubl. Meliaceae. Crabwood tree.

No. 2406. *Andiroba*, meaning "bitter oil." A quick-growing tree which becomes 60 feet high, with compound leaves 18 inches long, small axillary flowers, and thick-shelled russet-brown fruits about 3 inches in diameter containing two to six chestnutlike seeds. The bitter oil expressed from the seeds is used by the natives, who rub it into their skin to protect themselves from noxious insects; it is also made into a varnish or lacquer for iron objects, protecting them from rust.

For previous introduction see 44711.

106348. CLEOME POLYGAMA L. Capparidaceae.

No. 2414. An annual about 2 feet high, with compound leaves composed of three lanceolate leaflets 1 to 4 inches long and white or pale-rose flowers an inch long. Native to the West Indies.

106349. COMBRETUM sp. Combretaceae.

No. 2404. The combretums are woody climbers with racemes or spikes of small flowers which are sometimes very showy.

106350 to 106352. TEPHROSIA TOXICARIA Pers. Fabaceae.

A leguminous shrub up to 7 feet high, with leaves made up of nine or more leaflets and racemes of white and pink flowers. It is used as a cover crop.

For previous introduction see 101188.

106350. No. 2315.

106351. No. 2423.

106352. No. 2409.

106344 to 106363—Continued.

106353. CRINUM sp. Amaryllidaceae.

No. 2372.

106354. GUSTAVIA AUGUSTA L. Lecythidaceae.

No. 2399.

For previous introduction and description see 106249

106355. HIPPEASTRUM sp. Amaryllidaceae.

No. 2410. Bulbs.

106356. IPOMOEA TILIACEA (Will.) Choisy. Convolvulaceae.

No. 2306. *Casire*. Tubers of a perennial vine 6 feet or more long, with thin ovate-cordate leaves 2 to 3 inches long and purple, pink, or nearly white flowers about 2 inches long. Native to tropical America.

106357. LONCHOCARPUS sp. Fabaceae.

No. 2420. *Ebecoro*. Cuttings.

106358. PAULLINIA PINNATA L. Sapindaceae.

No. 2350. A strong-growing vine that climbs 30 to 40 feet to the tops of trees. The bright red fruits, the size of cherries, are borne in racemes 6 inches or more in length.

For previous introduction see 99001.

106359. SECURIDACA CORIACEA Bonpl. Polygalaceae.

No. 2349. A woody vine with alternate ovate emarginate leaves and pinkish flowers in lax panicles. Native to British Guiana.

106360. BANISTERIOPSIS LEPTOCARPA (Benth.) R. O. Williams. Malpighiaceae.

No. 2396. A climbing shrub with ovate leaves 3 to 4 inches long and yellow flowers in dense panicles. Native to British Guiana.

106361. SERJANIA MEMBRANACEA Splitg. Sapindaceae.

No. 2319. A tropical woody vine with alternate compound leaves and small white or yellowish flowers in axillary racemes. Native to Surinam.

106362. TALISIA sp. Sapindaceae.

No. 2378. *Mauraballi*.

106363. (Undetermined.)

No. 2410. Small bulb.

106364. CITRUS AURANTIFOLIA (Christm.) Swingle. Rutaceae.

Lime.

From Brazil. Budwood obtained at Estação Pomicultura, Deodoro, and presented by Harold Compere, American consulate, Rio de Janeiro. Received September 4, 1934.

Locally known as *limão cravo*, *limão rosa*, and *limão francez*. When young it makes a vigorous growth, but it is a short-lived tree.

106365 to 106369.

From India. Seeds presented by Dr. Walter Koelz, University of Michigan, Ann Arbor, Mich. Received September 5, 1934.

106365. AQUILEGIA sp. Ranunculaceae.

From Guntung, Purog, Kashmir, July 1933. A columbine with large, exquisitely scented, pale-blue flowers.

106365 to 106369—Continued.

106366. CITRUS sp. Rutaceae.

From Singapore. A very sweet Mandarin orange, 2½ inches in diameter, with orange-red skin.

106367. CITRUS sp. Rutaceae.

From Ceylon. A green-skinned orange 3 inches in diameter, with a fair flavor, but the inner skin is very tough.

106368. CUCUMIS MELO L. Cucurbitaceae. Muskmelon.

Sharbat amar (sirup pomegranate). Purchased at Kamaloporam, between Bombay and Madras, March 1934. A melon the size of a grapefruit, with a very fine flavor.

106369. CUCUMIS MELO L. Cucurbitaceae. Muskmelon.

From Poona, India, March 1934. A large yellow melon.

106370 to 106377.

From British Guiana. Collected by W. A. Archer, Bureau of Plant Industry. Received September 14, 1934.

106370. CARYOCAR NUCIFERUM L. Caryocaraceae. Sawarri tree.

No. 2337. A lofty tree, eventually 100 feet high, with trifoliolate leaves and large purple flowers with very numerous white stamens. The large fruit, several inches in diameter, contains two to four flat kidney-shaped nuts with edible white almond-like meat. Native to British Guiana. (Seeds.)

106371. ANTONIA OVATA Pohl. Loganiaceae.

No. 2488. Plants of a tropical shrub, with thick leathery, oval-elliptic, dark-green leaves and small white flowers in large terminal cymes. It is native to Brazil.

106372. ASPIDOSPERMA EXCELSUM Benth. Apocynaceae.

No. 2483. *Garuru*. Plants of a handsome tree, with leathery elliptic leaves, shining green above and 4 to 6 inches long, and large yellow flowers. Native to sandy places in British Guiana.

106373. BAUHINIA sp. Caesalpinaceae.

No. 2476. Plants.

106374. JACARANDA COPAIA D. Don. Bignonaceae.

No. 2492. Seedlings of a large handsome tree 60 to 80 feet high, with opposite bipinnate leaves 1 to 2 feet long and sky-blue flowers in large terminal panicles. Native to British Guiana.

106375. CONOMORPHA MAGNOLIIFOLIA Mez. Myrsinaceae.

No. 2437. *Teterumaballi*. Seedlings collected near Mazaruni Station of a tropical shrub with leathery, elliptic leaves up to 8 inches long and lax racemes of inconspicuous flowers.

Native to Surinam and British Guiana.

106376 and 106377. SERJANIA PAUCIDENTATA DC. Sapindaceae.

Seedlings of *Abaho*. A woody vine with biternate leaves, the leaflets oval, attenuate, and coarsely dentate at the apex. Native to French Guiana.

106376. No. 2445. From Kawu Creek, near Mazaruni Forest Station, August 11, 1934.

106377. No. 2462. Near Mazaruni Forest Station September 15, 1934.

106378. LUPINUS sp. Fabaceae.

From France. Seeds presented by Dr. J. Dufrenoy, Station de Pathologie Vegetale, Pont de la Maye, Gironde. Received September 4, 1934.

A hardy perennial, grown in the Pyrenees, but originally from Liberia.

106379. BAUHINIA TOMENTOSA L. Caesalpiniaceae. St. Thomas tree.

From Cuba. Seeds presented by Robert M. Grey, Superintendent, Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos. Received September 5, 1934.

An erect shrub or small tree which has obtusely lobed leathery leaves, broader than long, and few-flowered clusters of pure yellow flowers. It is native to India.

For previous introduction see 98802.

106380. TARCHONANTHUS MINOR Less. Asteraceae.

From the Union of South Africa. Seeds presented by the McGregor Museum, Kimberley. Received September 10, 1934.

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

For previous introduction see 98012.

106381 to 106386.

From India. Seeds presented by the forest botanist, Forest Research Institute, Dehra Dun, United Provinces. Received September 11, 1934.

106381. ALBUCA VIRIDIFLORA Jacq. Liliaceae.

A South African bulbous plant with six to nine linear-subulate, channeled, hairy leaves a foot long and green yellow-margined flowers in a lax raceme on a scape as long as the leaves.

106382. LAGERSTROEMIA FLORIBUNDA Jack. Lythraceae.

A handsome tropical tree, native to Malaya, with ovate-oblong acute leaves and very numerous pale-rose flowers in much-branched terminal panicles. Larger in all parts than *Lagerstroemia indica*.

106383. LAGERSTROEMIA TOMENTOSA Presl. Lythraceae.

A tall tropical tree 70 to 100 feet high, with elliptic-lanceolate leaves 3 to 6 inches long, hairy beneath, and purple flowers in axillary and terminal panicles. Native to Burma. Much larger than *Lagerstroemia indica*, but with less showy flowers.

106384. MUSA ARNOLDIANA Wildem. Musaceae.

A tropical banana relative about 12 feet high, with leaves 7 feet long and fruits 4 inches long.

For previous introduction see 75282.

106385. URGINEA INDICA (Roxb.) Kunth. Liliaceae.

A bulbous perennial 12 to 18 inches high, native to India and tropical America. The flower scape, appearing before the linear leaves, bears a raceme 6 to 12 inches long of drooping campanulate flowers an inch long, greenish white with green nerves.

106381 to 106386—Continued.

For previous introduction see 103630.

106386. ZEPHYRANTHERS CITRINA Baker. Amaryllidaceae. Zephyrilly.

A bulbous plant, unknown except in cultivation, with linear bright-green leaves a foot long and bright-yellow, red, or white flowers over an inch long on scapes about 5 inches high.

For previous introduction see 68125.

106387 and 106388. TRITICUM AESTIVUM L. Poaceae. Common wheat.

From Argentina. Seeds presented by the Director, Chacra Experimental de Alto de Sierra, San Juan. Received August 20, 1934.

106387. Alto de Sierra, 01-4.

106388. Alto de Sierra, 01-10-d4.

106389. QUERCUS sp. Fagaceae.

From Nanking, China. Seeds collected in Kwangsi Province by A. N. Steward and H. C. Cheo, University of Nanking. Received April 28, 1934. Numbered in September 1934.

F. 84. *Li Shu*. Collected October 23, 1933, at 1,000 feet altitude at Ta Tseh Tsuen, Yung Hsien. A tree with ovate fruits an inch long and almost as wide.

106390 to 106414. SOLANUM TUBEROSUM L. Solanaceae. Potato.

From Peru. Tubers presented by the Estación Experimental Agrícola, La Molina, Lima. Received September 8, 1934.

A collection of potatoes introduced for the use of Department specialists.

106390. *Alalayso*. 106403. *Huacotto*.

106391. *Alemana*. 106404. *Isolde*.

106392. *Alemana*. 106405. *Largas*.

106393. *Amarilla*. 106406. *Lazapa*.

106394. *Apaluqui*. 106407. *Lloronas*.

106395. *Apparo*. 106408. *Paltacac*.

106396. *Ayqui*. 106409. *Redondal*.

106397. *Canahuiri*. 106410. *Rocas*.

106398. *C c a n c h a l l i*. 106411. *T a d a r d i l l o*.

106399. *Ccolla*. 106412. *Ucururi*.

106400. *C h a t a s N e g r a s*. 106413. *Y a n a C h i l c a*.

106401. *C o c h a m a (C h o q u e p i t o)*. 106414. [Without notes.]

106402. *Cuzqueña*.

106415. ZEA MAYS L. Poaceae. Corn.

From Sumatra. Seeds sent by Rev. Hagnar Alm, Tandjong, Balei, and intercepted by the plant quarantine office in New York. Received September 12, 1934.

106416 to 106444. Poaceae. Grass.

From Arizona. Seeds collected by R. E. Burton, Santa Cruz, Calif. Received September 5, 1934.

Collected for Department specialists.

106416. AGROPYRON PAUCIFLORUM (Schwein.) Hitchc.

Water Lily Canyon, July 30, 1934.

106416 to 106444—Continued.

106417. *AGROSTIS EXARATA* Trin.
Water Lily Canyon, July 1934.
106418. *AGROSTIS EXARATA* Trin.
Sego Canyon, July 1934.
106419. *AGROSTIS VERTICILLATA* Vill.
Water Lily Canyon, July 31, 1934.
106420. *AGROSTIS VERTICILLATA* Vill.
Water Lily Canyon, July 20, 1934.
106421. *BOUTELOUA CURTIPENDULA* (Michx.) Torr.
Water Lily Canyon, July 2, 1934.
106422. *BOUTELOUA GRACILIS* (H. B. K.) Lag.
Sego Canyon, July 10, 1934.
106423. *BROMUS LAEVIPES* Shear.
Water Lily Canyon, July 24, 1934.
- 106424 and 106425. *BROMUS MARGINATUS* Nees.
A perennial grass of some value for grazing, growing on alluvial soils under dry conditions.
For previous introduction see 24633.
106424. Water Lily Canyon.
106425. Sego Canyon between 6,800 and 7,500 feet altitude, July 10, 1934.
106426. *BROMUS MOLLIIS* L.
Water Lily Canyon, July 16, 1934.
106427. *BROMUS TECTORUM GLABRATUS* Spenner.
Water Lily Canyon, July 21, 1934.
106428. *ELYMUS SALINA* Jones.
From the top of Skeleton Mesa, July 10, 1934.
106429. *ELYMUS SALINA* Jones.
Sego Canyon, July 15, 1934.
106430. *FESTUCA OCTOFLORA* Walt.
Water Lily Canyon, June 25, 1934.
106431. *MUHLENBERGIA POLYCAULIS* Scribn.
Water Lily Canyon, June 23, 1934.
106432. *MUHLENBERGIA PUNGENS* Thurb.
106433. *MUHLENBERGIA* sp.
Sego Canyon, August 5, 1934.
- 106434 and 106435. *ORYZOPSIS HYMENOIDES* (Roem. and Schult.) Ricker.
A deep-rooted, drought-resistant perennial grass found on steep alluvial banks. It is a good grazing grass, and the Indians used the seed as food.
106434. Water Lily Canyon, July 20, 1934.
106435. Sego Canyon, July 5 and 6, 1934.
106436. *ORYZOPSIS MICRANTHA* (Trin. and Rupr.) Thurb.
Water Lily Canyon, July 1, 1934. A rare grass in this region, found growing in the shade of oak trees.
106437. *PANICUM BULBOSUM* H. B. K.
Sego Canyon, August 3, 1934. A bulbous-rooted cespitose Mexican grass, with erect stems 3 to 4 feet high and narrow long-pointed leaves.
For previous introduction see 59354.

106416 to 106444—Continued.

- 106438 and 106439. *PANICUM LONGILIGULATUM* Nash.
A perennial grass with a good root system; it tolerates some shade and is food for grazing.
106438. Water Lily Canyon, June 25, 1934.
106439. Sego Canyon between 6,500 and 8,000 feet altitude, July 5, 1934.
106440. *POLYPOGON MONSPELIENSIS* (L.) Desf.
Keet Seel, July 28, 1934. An annual grass found on the Pacific coast, with soft bristly, green or yellowish spikes up to 6 inches long.
For previous introduction see 53067.
106441. *SPHENOPHOLIS OBTUSATA* (Michx.) Scribn.
From the top of Skeleton Mesa at 8,000 feet altitude.
106442. *SPOROBOLUS CRYPTANDRUS* (Torr.) A. Gray.
Sego Canyon, July 25, 1934.
106443. *STIPA COMATA* Trin. and Rupr.
Sego Canyon, July 10, 1934, and Water Lily Canyon, July 13, 1934.
106444. *STIPA SPECIOSA* Trin. and Rupr.
Water Lily Canyon, July 18, 1934.
106445. *IRIARTEA* sp. Phoenicaceae.
Palm.
From British Guiana. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received August 27, 1934.
No. 2371. Bobo palm. The Iriarteas are tall spineless palms with cylindrical or swollen trunks rising from pyramids of exposed roots, and with rather few unequally pinnate leaves. Native to tropical South America.
106446. *STIFFTIA CHRYSANTHA* Mikan. Asteraceae.
From Cape Town, Union of South Africa. Seeds presented by Dr. Thomas Barbour, Harvard University. Received September 4, 1934.
A shrub or small tree with alternate, ovate-lanceolate, entire leaves 3 to 5 inches long and golden-yellow flower heads about 3 inches across. Native to Brazil.
106447. *PHOENIX ROBUSTA* Hook. f. Phoenicaceae. Palm.
From India. Seeds collected in the Godaveri district, Madras Presidency, and presented by the Royal Botanic Gardens, Kew, England. Received August 27, 1934.
A palm 15 to 20 feet high the trunk of which is clothed with the sheaths of the fallen leaves. The pinnate leaves, 3 feet long, have rigid fascicled leaflets. Native to Behar, British India.
106448. *PASSIFLORA MOLLISSIMA* (H. B. K.) Bailey. Passifloraceae.
From Colombia. Seeds presented by Eduardo Hernandez, Pijao, Department of Caldas. Received September 17, 1934.
A climbing plant which produces ovate pointed yellow acid fruits of excellent quality.
For previous introduction see 100701.

106449 to 106451.

From Colombia. Seeds presented by M. J. Rivero, Estación Agrícola Experimental, Palmira, Departamento del Valle del Cauca. Received September 13, 1934.

106449. *GUILIELMA* sp. Phoeniceaceae.
Palm.

A palm, native to the Valle del Cauca, which is more ornamental than *Guilielma utilis*.

106450. *JUGLANS HONOREI* Dode. Juglandaceae.

A wild walnut, native to the highlands of northern South America, which resembles closely the black walnut of the United States. The thick-shelled nut contains a kernel of mild pleasant flavor.

For previous introduction see 73394.

106451. *PASSIFLORA MANICATA* Pers. Passifloraceae.

An ornamental vine, native to Colombia, with red flowers which are followed by green fruits about 3 inches long. The seeds are smaller and the pulp is not so highly flavored as in some of the other varieties.

For previous introduction see 51567.

106452 to 106461.

From Ruanda-Urundi, Belgian Congo. Africa. Seeds presented by J. B. Lejeune, Director, Station Experimentale de Kisozi. Received September 15, 1934.

106452. *CASSIA* sp. Caesalpinaceae.

106453. *TEPHROSIA* sp. Fabaceae.

Collected in Urundi District.

106454. *TEPHROSIA* sp. Fabaceae.

Collected in Ruanda District.

106455. *CROTALARIA* sp. Fabaceae.

Collected in Urundi District.

106456. *CROTALARIA* sp. Fabaceae.

Collected in Urundi District.

106457. *ERIOSEMA* sp. Fabaceae.

Received under the name *Eriosema lejeunei*.

106458. *MEIBOMIA LASIOCARPA* (Beauv.) Kuntze. Fabaceae.

Collected in the Belgian Congo.

For previous introduction see 103618.

106459. *DESMODIUM SALICIFOLIUM* DC. Fabaceae.

A bushy shrub with lanceolate-oblong leaflets and flowers in terminal panicles. Native to the East Indies.

106460. *VIGNA* sp. Fabaceae.

Collected in Urundi District.

106461. (Undetermined.)

A perennial leguminous plant collected in Urundi District.

106462 to 106466.

From the Union of Soviet Socialist Republics. Bulbs presented by the Institute of Subtropical Cultures, Sukhum, Transcaucasia, through the Institute of Plant Industry, Leningrad. Received September 14, 1934.

106462. *ARUM ELONGATUM* Stev. Araceae.

An arum from Asia Minor, about a foot high, with brownish, broadly hastate-

106462 to 106466—Continued.

sagittate leaves. The spathe tube is oblong ovoid, white within, with the limb intense black purple.

106463. *COLCHICUM UMBROSUM* Stev. Melanthiaceae. Autumn crocus.

A low bulbous plant, native to the Caucasus, with about five narrow leaves and small clusters of lilac flowers.

For previous introduction see 67014.

106464. *CROCUS SCHAROJANI* Rupr. Iridaceae.

A crocus with a very small globose bulb. In the Caucasus region, where it is native, the leaves appear in the spring and remain until the bright-yellow flowers appear the latter part of July and August. The throat of the corolla is yellowish white, the anthers are pale yellow, and the style branches are orange red.

For previous introduction see 90616.

106465. *ORNITHOGALUM BALANSAE* Boiss. Liliaceae.

A low bulbous plant with two or three linear leaves 3 to 4 inches long and small white flowers in a small dense raceme, on a scape about as long as the leaves. Native to Armenia.

106466. *SCILLA WINOGRADOWII* Sosn. Liliaceae.

A squill from the Caucasus with one to three pale-blue suberect flowers more than three-fifths of an inch long. The leaves are oblong-linear or linear lanceolate.

106467 to 106482.

From central Australia. Seeds collected by Dr. T. G. Strehlow, University of Adelaide, Adelaide. Received September 14, 1934.

A collection of native Australian plants.

106467. *BRACHIARIA GILESII* (Benth.) Chase. Poaceae. Grass.

Naijara. Collected in the MacDonnell Ranges. A perennial grass with long leafy stolons and short firm leaves. The flowering culms, erect or ascending, are 6 to 18 inches high, and the edible seeds are eaten by the natives.

106468. *CHLORIS VIRGATA* Swartz. Poaceae. Feather fingergrass.

Collected at Alice Springs. A fine grazing grass.

106469. *DACTYLOCTENIUM AEGYPTIUM* (L.) Richter (*Eleusine aegyptiaca* Desf.). Poaceae.

Collected at Alice Springs. A tropical prostrate annual grass which forms mats by rooting at the nodes.

For previous introduction see 73115.

106470. *ERAGROSTIS* sp. Poaceae.

Collected at Alice Springs. A very nutritious fodder.

106471. *ERYTHRINA* sp. Fabaceae.

Collected north of Alice Springs, in the northern part of central Australia. *Intita*, or bean tree. The red seeds of this tree are used as ornaments by the natives, and the wood is used in the manufacture of shields and putchis (vessels) of all kinds. The beanwood is very light, one of the few soft woods found in central Australia.

106467 to 106482—Continued.

106472. *HIBISCUS* sp. Malvaceae.
Rose. From the river banks near Alice Springs.

106473. *MIDA ACUMINATA* (R. Br.) Kuntze. Santalaceae. **Quandong.**

Pambala, a native tree from the sand-hill country southwest of Alice Springs. An evergreen tree up to 30 feet high, with long narrow leaves which are eaten by sheep and cattle in times of drought. The inconspicuous flowers are in terminal clusters and are followed by red fruits 1 to 2 inches in diameter. The fleshy part of the fruit is used for jelly, and the kernel of the nut, besides being edible, contains an oil which may be burned for illumination.

For previous introduction see 77021.

106474. *NAGEIA* sp. Taxaceae.

Arayguia. A native "plum" collected in the MacDonnell Ranges.

106475. *PANICUM* sp. Poaceae. **Grass.**

Ntenbera. A grass with edible seeds, collected in the MacDonnell Ranges.

106476. *PAPPOPHORUM AVENACEUM* Lindl. Poaceae. **Grass.**

An erect tufted perennial grass with whitish spikelike panicles.

106477. *PORTULACA* sp. Portulacaceae.

Manjerico. Collected in the MacDonnell Ranges. An herb with edible leaves which are used as a salad.

106478. *SPOROBOLUS PALLIDUS* Lindl. Poaceae. **Grass.**

Collected in the MacDonnell Range. A caespitose grass with narrow leaves 6 to 12 inches high and a very loose panicle 3 to 5 inches long and broad.

106479. *STURTIA GOSSYPIOIDES* R. Br. Malvaceae.

Mountain Rose. Collected in the Krichauff Ranges. A large shrub closely related to cotton (*Gossypium* spp.), with broadly oval, stiff leaves up to 2 inches long and large purple flowers.

For previous introduction see 90739.

106480. *XANTHORRHOEA* sp. Liliaceae.

Collected in the sand hills west of Hermansburg.

106481. (Undetermined.)

Uratnaya. Collected on the alluvial flats near Alice Springs.

106482. (Undetermined.)

Mbultjisa. A native "orange" from the MacDonnell Ranges.

106483 to 106498.

From British Guiana. Material collected by W. A. Archer, Bureau of Plant Industry. Received September 10, 1934.

Unless otherwise mentioned, the following were introduced as seeds.

106483. *ANANAS SATIVUS* Schult. f. Bromeliaceae. **Pineapple.**

No. 2451. Cuttings.

106484. *BAUHINIA* sp. Caesalpiniaceae.

No. 2443. Cuttings.

106483 to 106498—Continued.

106485. *BYRSONIMA ALTISSIMA* (Aubl.) DC. Malpighiaceae.

Arakadako. No. 2467. A tree 60 to 80 feet high, with ovate-oblong leaves, rough hairy beneath, and racemes of white flowers. Native to British Guiana.

106486. *BYRSONIMA RUGOSA* Benth. Malpighiaceae.

Canoaballi. No. 2440. A scandent shrub with obovate rugose leaves 5 to 7 inches long and yellow flowers in racemes 6 inches long. Native to British Guiana.

106487. *CASSIA ALATA* L. Caesalpiniaceae.

No. 2424. An erect shrub 5 to 10 feet high, with pinnate leaves up to 2 feet long and showy yellow flowers. Native to tropical America.

For previous introduction see 88426.

106488. *CLATHROTROPIS BRACHYPETALA* (Tul.) Kleinh. Fabaceae.

No. 2452. *Arumatta.* A shrub or small tree with unequally pinnate leaves, the leaflets leathery, broadly elliptic oblong, 5 to 7 inches long, and small flowers in spreading racemes. Native to Surinam.

106489. *HIPPEASTRUM SOLANDRIFFLORUM* Herb. Amaryllidaceae.

No. 2448. Mazaruni Station, August 12, 1934. Bulbs of a plant 1½ feet high, with strap-shaped leaves 1 inch broad and an umbel of two to four flowers; these are 7 to 10 inches long, white with pink stripes. Native to northern South America.

106490. *EUPHORBIA COTINOIDES* Miq. Euphorbiaceae.

No. 2446. Cuttings of a cultivated shrub with red leaves.

106491. *LONCHOCARPUS RARIFLORUS* Mart. Fabaceae.

No. 2444. Cuttings of a woody plant, native to northern Brazil, with leathery ovate leaflets and rosy purple flowers about one-half inch long, in elongated racemes often over a foot long.

106492. *PITHECOLLOBIUM TRAPEZIFOLIUM* Benth. Mimosaceae.

No. 2466. *Huruoasa.* A tropical tree, native to French Guiana, with compound leaves made up of two to four pairs of leaflets, each with five to nine pinnules. The flower heads are solitary in the axils.

106493 to 106495. *SERJANIA PAUCIDENTATA* DC. Sapindaceae.

106493. No. 2430. *Abaho.*

106494. No. 2445. Cuttings.

106495. No. 2462. *White Abaho.*

106496. *SOLANUM LEUCOCARPON* Dun. Solanaceae.

No. 2470. A twiggy shrub with small paired leaves, one orbicular and the other one-third as large and lanceolate. The large white flowers are in cymes, and the round berries are shining white. Native to northern South America.

106497 and 106498. *CONOMORPHA MAGNOLIFOLIA* Mez. Myrsinaceae.

For previous introduction and description see 106375.

106497. No. 2437. Near Mazaruni Forest Station, August 10, 1934.

106498. [No Archer number.]

106499. CARICA PAPAYA L. Papayaceae. Papaya.

From California. Seeds presented by James Stewart, La Habra Heights. Received September 20, 1934.

A fine-flavored South African papaya, polinized by a plant from the Sandwich Islands.

106500. LICANIA RIGIDA Benth. Rosaceae.

From Ceará, Brazil. Seeds collected by H. A. Gardner and presented by the Institute of Paint and Varnish Research, Washington, D. C., through the Bureau of Chemistry and Soils. Received September 26, 1934.

A large tropical tree of the Brazilian forests, with rigid leathery oblong leaves 3 to 5 inches long and shining green above. The greenish, ovoid-cylindrical fruits, about 2 inches long, yield an oil known as *Oiticica* oil, that is used in the paint and varnish industry.

106501. CARICA CANDAMARCENSIS Hook. f. Papayaceae.

From Chile. Seeds purchased through Arthur W. Burrows, American consular agent, Coquimbo. Received October 10, 1934.

A small papaya $3\frac{1}{2}$ by $4\frac{1}{4}$ inches, with very thin flesh which is highly acid and is used only in making preserves and sirups. The fruit is yellow when ripe with a spicy aromatic flavor and fragrance, but is never eaten fresh.

106502 to 106505.

From Brazil. Seeds presented by J. I. Case Co., through Reginald S. Castleman, American consul, Porto Alegre. Received September 20, 1934.

106502. ORYZA SATIVA L. Poaceae. Rice.

Santa Maria. A new type of rice developed near Rio Pardo, State of Rio Grande do Sul, which develops abnormally large ears and is a heavy yielder.

106503 to 106505. TRITICUM AESTIVUM L. Poaceae. Common wheat.

Rust-immune wheat developed in Rio Grande do Sul.

106503. *Fronteira.*

106504. *Fronoso.*

106505. *Surpreza.*

106506. CARAPA GUIANENSIS Aubl. Meliaceae.

From Brazil. Seeds collected in the Jardim Botânico, Rio de Janeiro, by H. A. Gardner and presented by G. S. Jamieson, Bureau of Chemistry and Soils. Received September 27, 1934.

For previous introduction and description see 106347.

106507. KIGELIA PINNATA (Jacq.) DC. Bignoniaceae.

From East Africa. Seeds collected by Mrs. Thomas Barbour on the road between Ressano Garcia and Lourenço Marques, Mozambique. Received September 24, 1934.

The "sausage tree" of eastern tropical Africa becomes 30 to 50 feet high, with

106507—Continued.

rough ternate leaves made up of seven to nine elliptic-oblong leaflets; the large claret-colored flowers are in long spikes, and the blunt sausalike fruits are 12 to 18 inches long.

106508 and 106509. TRIFOLIUM SUBTERRANEUM L. Fabaceae.

Subterranean clover.

From Australia. Seeds presented by F. H. Brunning Pty. Ltd., Melbourne. Received September 28, 1934.

106508. *Dwalganup.* An extra early strain.

106509. *Wenigup.* A late clover.

106510 to 106519.

From British Guiana. Material collected by W. A. Archer, Bureau of Plant Industry. Received September 13, 1934.

Unless otherwise mentioned the following were introduced as seeds.

106510. ANTONIA OVATA Pohl. Loganiaceae.

No. 2488. A tropical shrub with thick leathery oval-elliptic dark-green leaves and small white flowers in large terminal cymes. It is native to Brazil.

For the introduction of plants see 106371.

106511. ASPIDOSPERMA EXCELSUM Benth. Apocynaceae.

No. 2483. *Garuru.* A handsome tree with leathery elliptic leaves shining green above and 4 to 6 inches long and large yellow flowers. Native to sandy places in British Guiana.

For the introduction of plants see 106372.

106512. CAPSICUM ANNUM L. Solanaceae. Common redpepper.

No. 2493. A cultivated variety.

106513. CARYOCAR GLABRUM Pers. Caryocaraceae.

No. 2490. Cuttings of a large tropical tree with opposite digitately 3- to 5-foliate leathery leaves, large greenish flowers, and hard-shelled nuts with white edible kernels. Native to northern South America.

106514. CASSIA BACILLARIS L. f. Caesalpinaceae.

No. 2478. Cuttings from a small tree of rather straggly habit with golden-yellow flowers in loose racemes.

For previous introduction see 97567.

106515. CITRULLUS VULGARIS Schrad. Cucurbitaceae.

No. 2491. A cultivated watermelon collected at Bartica, on the Essequiba River.

106516. CRINUM sp. Amaryllidaceae.

No. 2449. Bulbs of cultivated plants collected at Mazaruni Station.

106517. CRINUM sp. Amaryllidaceae.

No. 2450. Bulbs of cultivated plants.

106518. MAXIMILIANEA sp. Cochlospermaeae.

No. 2480. *Kanakudiballi.*

106510 to 106519—Continued.

106519. *CONOMORPHA MAGNOLIFOLIA* Mez. Myrsinaceae.

No. 2437. Cuttings. Near Mazaruni Forest Station August 10, 1934.

For previous introduction of seeds and a description see 106375.

106520 to 106535.

From Europe. Material collected by Edgar Anderson, Arnold Arboretum Balkan Expedition. Received September 18, 1934.

Unless otherwise mentioned, the following were introduced as seeds. All were collected in situations unusually far north for the particular species.

106520. *ACTAEA SPICATA* L. Ranunculaceae. Black baneberry.

No. 33. August 13, 1934. Rila Monastery, Bulgaria, at 4,500 feet altitude in gravelly loam. A herbaceous perennial 1 to 2 feet high, with racemes of deep-blue fruits in autumn.

For previous introduction see 81947.

106521. *CORONILLA VARIA* L. Fabaceae. Crownvetch.

No. 28. August 13, 1934. Rila Monastery, Bulgaria, at 4,200 feet altitude in stony soil. A prostrate or ascending perennial up to 4 feet high, with a thick rootstock, compound leaves, and pinkish flowers in dense umbels. It is native to central Europe.

For previous introduction see 104933.

106522. *CROCUS BANATICUS* Heuff. Iridaceae.

No. 63. Bulbs collected in Turda, Rumania. A Hungarian crocus with two or three linear-lanceolate leaves and short-stalked flowers, dark purple with several heart-shaped darker spots near the tips of the segments. The anthers are orange, a little longer than the white filaments, and the short orange-yellow style branches are somewhat fringed at the tips.

106523. *DIGITALIS AMBIGUA* Murr. Scrophulariaceae.

No. 51. August 13, 1934. Gabrovo Monastery, Bulgaria, at 3,000 feet altitude on a steep sunny slope in gravelly loam. A perennial or biennial 2 to 3 feet high, with sessile or clasping, ovate-lanceolate leaves and large flowers, yellowish marked with brown and 2 inches long. An unusually fine-flowered form. Native to Europe.

106524. *DIGITALIS VIRIDIFLORA* Lindl. Scrophulariaceae.

No. 27. August 13, 1934. Rila Monastery, Bulgaria, at 4,200 feet altitude, on a gentle slope in stony soil. An alpine, native to Greece, with hairy oblong dentate basal leaves, narrower above, and small yellowish-green flowers.

106525. *GERANIUM MACRORRHIZUM* L. Geraniaceae.

No. 32. August 13, 1934. Rila Monastery, Bulgaria, at 4,500 feet altitude. A large-rooted herbaceous perennial with a woody base and stems up to 2 feet high. The 3- to 5-lobed leaves are often colored red, and the blood-red flowers are in bunches at the end of the stems. Native to southern Europe.

For previous introduction see 91427.

106520 to 106535—Continued.

106526. *LUNARIA REDIVIVA* L. Brassicaceae.

No. 39. August 14, 1934. Bank of the Rila River, near the Rila Monastery, Bulgaria, at 4,200 feet altitude, in deep shade. A herbaceous perennial with large broadly cordate leaves, terminal racemes of gray-purple flowers, and large flat disk-shaped translucent fruits. Native to southern Europe.

106527. *PRIMULA VERIS SUAVEOLENS* Reichb. Primulaceae. Primrose.

No. 29. August 13, 1934. Rila Monastery, Bulgaria, at 4,200 feet altitude. A variety of the cowslip primrose with the calyx campanulate and the corolla almost flat. The cordate leaves are densely white tomentose beneath.

106528. *RHEUM RHAPONTICUM* L. Polygonaceae. Rhubarb.

No. 31. August 13, 1934. Ilenyi, Vrch-Rila, Bulgaria, at 6,000 feet altitude. Cultivated from wild plants by a monk at St. Luke's Shrine.

106529. *SAXIFRAGA ROTUNDFOLIA* L. Saxifragaceae.

No. 40. August 14, 1934. Banks of the Iliia River, near the Rila Monastery, Bulgaria, at 4,200 feet altitude, in deep shade. A herbaceous perennial 8 to 12 inches high, erect from a thickened rhizome, with thick, more or less hairy, roundish leaves and white flowers, spotted red or purple, in a branched panicle. Native to Europe.

106530. *SEMPERVIVUM BLANDUM* Schott. Crassulaceae.

From Turda, Rumania. Plants of an Austrian sempervivum with obovate, spatulate, pale gray-green leaves up to 2 inches long. The pink flowers, marked with a central stripe of bright carmine, are borne on a stem 7 to 10 inches high.

106531. *SOLDANELLA MONTANA* Willd. Primulaceae.

No. 30. August 13, 1934. Rila Monastery, Bulgaria, at 4,500 feet altitude. An alpine perennial up to 14 inches high with long-stemmed, roundish leaves, and violet flowers on slender scapes. Native to southeastern Europe.

106532. *THYMUS MOESIACUS* Velen. Menthaceae.

No. 41. August 13, 1934. Rila Monastery, Bulgaria, at 4,200 feet altitude. A Bulgarian thyme resembling *Thymus chamaedrys* in habit and size, with simple prostrate creeping stems and obovate-spatulate leaves.

106533. *THYMUS* sp. Menthaceae.

No. 12. August 9, 1934. Sofia, Bulgaria, at 2,000 feet altitude. A shrub found on a stony gravelly slope in the full sun.

106534. *VERBASCUM LYCHNITIS* L. Scrophulariaceae.

No. 25. August 13, 1934. Rila Monastery, Bulgaria, at 4,200 feet altitude. A tomentose biennial found in turf in full sun, with oblong-elliptic crenate leaves and panicles of small yellow flowers. Native to Europe and the Caucasus.

106535. *VERONICA URTICIFOLIA* Jacq. Scrophulariaceae.

No. 44. August 14, 1934. Found in gravelly loam in deep shade on the banks

106520 to 106535—Continued.

of the Iliiia River, near the Rila Monastery, Bulgaria. A herbaceous perennial over a foot high, with narrowly ovate serrate rugose leaves and small pale-pink flowers in terminal racemes. Native to central Europe.

106536 to 106544.

From British Guiana. Seeds collected by W. A. Archer, Bureau of Plant Industry. Received September 30, 1934.

106536. *CENTROSEMA PLUMIERI* (Turp.) Benth. Fabaceae.

No. 2499. From Georgetown. A tropical ornamental vine, native to Brazil, with white and red flowers. It is of value as a green manure.

For previous introduction see 99807.

106537. *CLEOME SPECIOSISSIMA* Deppe. Capparidaceae.

No. 2497. From Georgetown. A showy annual, native to Jalapa, Mexico, with digitately 5- to 7-foliate leaves, and deep-pink flowers in a terminal raceme.

106538 and **106539.** *CLIBADIUM SURINAMENSE* L. Asteraceae.

Collected in the Northwest district. A large bushy perennial 8 to 10 feet high, with broadly ovate leaves and small white flower heads in dense clusters.

106538. No. 2405. **106539.** No. 2407.

106540. *DIOCLEA MACRANTHA* Huber. Fabaceae.

No. 2495. Mazaruni Forest Station, August 23, 1934. A perennial, somewhat woody, tropical climber with trifoliate leaves, the leaflets broadly ovate and about 2 inches long. The small flowers are in axillary racemes. Native to northern Brazil.

106541. *FICUS* sp. Moraceae.

No. 2485. Macouri Creek, August 21, 1934. *Kumakaballi*. A semi-climbing shrub with milky sap. Birds eat the small fruits.

106542. *GUETTARDA ACREANA* K. Krause. Rubiaceae.

No. 2496. Kamira Falls, Cyuuni River, August 1934. A shrub or small tree with ovate or oblong leaves 3 to 6 inches long, crowded toward the ends of the branches, and small greenish-yellow axillary flowers one-third of an inch long.

106543. *SERJANIA PYRAMIDATA* Radlt. Sapindaceae.

No. 2498. Mabaruma, Northwest district, August 24, 1934. A woody climber, native to northwestern South America, with bifernate leaves having ovate-elliptic leaflets 4 inches long. The winged fruits are more than 1 inch long.

106544. (Undetermined.)

No. 2500. Georgetown Botanic Garden, August 6, 1934.

106545 to 106558.

From Africa. Seeds presented by Dr. Thomas Barbour, Harvard University, Cambridge, Mass. Received September 24, 1934.

106545. *ACACIA* sp. Mimosaceae.

An acacia with handsome flowers, from the low veldt in eastern Transvaal.

106545 to 106558—Continued.

106546. *ACACIA* sp. Mimosaceae.

From Skukusa, Kriega Park, eastern Transvaal.

106547. *ALBIZZIA* sp. Mimosaceae.

From the eastern Transvaal.

106548. *ARISTOLOCHIA GLAZIOVII* M a s t. Aristolochiaceae.

An attractive perennial climber, native to the state of Rio de Janeiro, Brazil. The glabrous leaves, about 4 inches long and 1½ to 2 inches in width, are pandurate and deeply cordate lobed at the base, with the obtuse-subquadrate lobes parallel, and the petiole about 1 inch long. The strongly scented, solitary, axillary flowers are unequally ventricose below, while above the purple-spotted limb is about 2 inches long.

106549. *BARYXYLUM AFRICANUM* (Sond.) Pierre. Caesalpinaceae.

From Letaba, eastern Transvaal. A handsome yellow-flowered tree with a habit like a mimosa, native to tropical and subtropical Africa. It becomes 20 to 30 feet high.

For previous introduction see 93578.

106550. *COMBRETUM* sp. Combretaceae.

From the Oliphant River, eastern Transvaal. A climbing shrub with red flowers.

106551. *COPAIVA MOPANE* (Kirk) Kuntze. Caesalpinaceae.

From Letaba, Krupel Park, eastern Transvaal. Native names: *Mopani*, *itipani*, *mu vanga*, and *mu wani*. A large forest tree from tropical Africa that grows in a semiarid country where water may stand over the soil after heavy rains. The stiff compound leaves, 2 to 3 inches long, are deep shiny green, and the roundish flat pods look very much like the leaflets. The dark heavy wood is very durable and resists the attacks of termites.

For previous introduction see 61644.

106552. *ENCEPHALARTOS* sp. Cycadaceae.

From the Botanic Garden, Lourenço Marques, Mozambique. Tall palmlike plants with a terminal tuft of thick, spiny, pinnate leaves.

106553. *LONCHOCARPUS* sp. Fabaceae.

From Letaba, Krupel Park, eastern Transvaal. A fine shade tree.

106554. (Undetermined.)

From Grand Lac, near Majunga, Madagascar.

106555. (Undetermined.)

From Letaba, eastern Transvaal.

106556 to **106558.** *HYPHAENE* spp. Phoenicaceae.

106556. *HYPHAENE* sp.

From Majunga, Madagascar. A tall silver-gray palm.

106557. *HYPHAENE* sp.

From Majunga, Madagascar. A tall silver-gray palm.

106558. *HYPHAENE* sp.

A wild palm collected at Grand Lac, near Majunga, Madagascar.

106559 and 106560.

From Alaska. Seeds presented by Thomas Berryman, Kotzebue, through Dr. Ales Hrdlička, Smithsonian Institution, Washington, D. C. Received September 27, 1934.

106559. IRIS SETOSA Pall. Iridaceae.
Arctic iris.

This was originally described as an Asiatic plant, but forms that cannot be separated from it are found in North America. At least half a dozen forms

106559 and 106560—Continued.

come true from seed. The peculiarity of this iris is that the standards are reduced to small points about one-half inch long. The color is usually bluish purple or lavender, but some shades are so light as to be almost gray.

For previous introduction see 91030.

106560. NYMPHAEA sp. Nymphaeaceae.

Arctic lily.

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