

UNITED STATES DEPARTMENT OF AGRICULTURE,  
BUREAU OF PLANT INDUSTRY,  
OFFICE OF FOREIGN SEED AND PLANT INTRODUCTION.

NO. 83.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

December 1, 1912, to January 15, 1913.

NEW PLANT IMMIGRANTS.

(NOTE: Applications for material listed in this bulletin may be made at any time to this Office. As they are received they are filed, and when the material is ready for the use of experimenters it is sent to those on the list of applicants who can show that they are prepared to care for it, as well as to others selected because of their special fitness to experiment with the particular plants imported.)

One of the main objects of the Office of Foreign Seed and Plant Introduction is to secure material for plant experimenters, and it will undertake as far as possible to fill any specific requests for foreign seeds or plants from plant breeders and others interested.)

GENERA REPRESENTED IN THIS NUMBER.

Acacia	34837-838	Ilex	34836
Alicastrum	34876	Kennedya	34842
Aristoclesia	34878	Lagunaria	34843
Boronia	34839	Nicotiana	34820
Carica	34903	Persea	34855-856
Cassia	34809		34904
Chenopodium	34823	Phaseolus	34888-900
Cydonia	34864	Solanum	34866
Dioscorea	34861	Sterculia	34873
Gnaphalium	34819	Stevia	34883
Grevillea	34872	Vigna	34859

PLATE: The Simmonds Papaya.

MATTER IN THIS BULLETIN IS NOT TO BE PUBLISHED WITHOUT  
SPECIAL PERMISSION.

ACACIA ELATA. (Mimosaceae.) 34837. Seeds of cedar wattle from Australia. Presented by Lt.-Col. J. W. B. Field, Castlemaine, Victoria. A New South Wales tree of very local distribution, furnishing small quantities of lower grade gum arabic. It is an evergreen tree with pale yellow flowers growing to a height of 60 to 80 feet. For distribution later.

ACACIA SPECTABILIS. (Mimosaceae.) 34838. Seeds of the mudgee wattle from Australia. Presented by Lt.-Col. J. W. B. Field, Castlemaine, Victoria. A yellow-flowered evergreen shrub eight to twelve feet in height. For distribution later.

ALICASTRUM SP. (Moraceae.) 34876. Seeds of the "ramon" from Merida, Mexico. Presented by Mr. G. N. Collins, of this Bureau. "A small tree common in northern Yucatan, the branches of which are the principal fodder during the dry season. All kinds of animals seem to eat the leaves freely. The plant is strictly tropical, and I do not know that it could be grown anywhere in the United States, but it was so extensively used and seemed to afford such excellent forage in the dry regions of Merida that it might be worth while to give it a trial." (Collins.) For distribution later.

ARISTOCLESIA ESCULENTA. (Clusiaceae.) 34878. Seeds of the pacuri from Villaria, Paraguay. Presented by Sr. Carlos Mahaux. "A very large beautiful tree with hard wood. The leaves are coriaceous, and elegantly marked with numerous parallel veins; the flowers are large, of a light red color, solitary at the ends of the small branches. The fruit called pacoury-uva in Brazil, is said to be very sweet and delicious, whilst the seeds have the flavor of almonds." (Lindley, Treasury of botany.) For distribution later.

BORONIA PINNATA. (Rutaceae.) 34839. Seeds from Australia. Presented by Lt.-Col. J. W. B. Field, Castlemaine, Victoria. A pink-flowered evergreen shrub 4 to 10 feet high. For distribution later.

CARICA PAPAYA. (Papayaceae.) 34903. Seeds of papaya from Merida, Mexico. Presented by Mr. G. N. Collins, of

this Bureau, who procured them through Sr. Arturo Zavala from the Chinese gardens. "Seeds from a very large and fine flavored fruit. The trees produce when small and are very prolific, many trees not over 7 feet in height bearing from 15 to 10 enormous fruits and of course, numerous smaller ones. The Chinese gardens about Merida are securing remarkable results with this fruit." (Collins.) For distribution later.

CASSIA OBOVATA. (Caesalpiaceae.) 34809. Seeds from South Africa. Presented by Prof. J. Burt-Davy, Government Agrostologist and Botanist, Pretoria, Transvaal. "Seed from the southwestern Transvaal and Bechuanaland. The root is supposed to possess medicinal virtues and the leaves are said to be used in tropical Africa as a substitute for and adulterant of, commercial senna; I have no personal experience of its merits. The plant prefers a sandy soil and grows in a region of summer rain with a 15 to 20 inch rainfall." (Burt-Davy.) For distribution later.

CHENOPODIUM QUINOA. (Chenopodiaceae.) 34823. Seeds of quinoa from Puno, Peru. Presented by Mr. C. Bues. "Seed of a Peruvian grain. It is exceedingly nourishing and might interest breakfast food manufacturers. Grows on semi-arid land, is sown in rows and gives big crops. Adaptable strains might be selected. Grows at 10000-11000 feet altitude and even higher. Sown near the beginning of the rainy season. The plant resembles a weed very common in the states, and should not be pulled as a weed." (Bues.) For distribution later.

CYDONIA JAPONICA. (Malaceae.) 34864. Plants of the Japanese quince from Nancy, France. Purchased from Messrs. Lemoine & Sons. "Variety Incendie. Flowers very beautiful, double and perfect; petals round, perfectly imbricated, live fiery scarlet in color." (Lemoine.) For distribution later.

DIOSCOREA SP. (Dioscoreaceae.) 34861. The root of a yam from Manila, Philippine Islands. Presented by Mr. O. W. Barrett, Chief, Division of Horticulture, Bureau of Agriculture. "A superior sort of yam. I think we have never sent you this variety before; it has a very distinct habit, as to the rhizomes, from other yams, somewhat resembling the old West Indian 'yampee' in that respect." (Barrett.) For distribution later.

GNAPHALIUM ORIENTALE. (Asteraceae.) 34819. Plants of immortelle from Toulon, France. Presented by Mr. F. M. Mansfield, consular agent. "In growing immortelles the choice of soil is very important. Rocky or sandy soils, with southern exposure, are best adapted for this purpose. In rich, deep, cold soils, the immortelle is killed by the first frosts. After the soil has been broken and well prepared, the ground is laid out in rows 16 to 20 inches apart; in these rows the young plants are set out at a distance of 12 to 14 inches from each other. Care should be taken to heap up the soil about the roots. These early plants should be watered by means of a sprinkler. If it should rain after the planting, sprinkling would be unnecessary. It would be advisable during the first four or five days to protect these young plants from the hot rays of the sun. When they have begun to grow, they should be exposed to the full rays of the sun, and during the winter protected from the cold, for the immortelle is very sensitive to frost. It is for this reason that the immortelle is cultivated at Ollioules and Bandol only in soils well exposed to the sun and upon the southern slopes. Cultivation of the immortelle is exceedingly simple. It consists in spading lightly the ground about the plant and applying a suitable fertilizer. The ground should be spaded whenever weeds spring up around the plants. As for fertilizer, it consists of oil-cakes and stable manure, which is placed about the roots of the young plants when they have attained a certain development. The fertilizer should be renewed in this region every year in October or November. The immortelle commences to yield after the second year, and continues to bloom even more than twenty years. In this region the flower is gathered in June or July. At the moment the flowers commence to open and show a small red point in the center and are of a beautiful golden yellow, they should be gathered. When the flowers have arrived at this degree of maturity, they should be immediately gathered, for they open very rapidly and lose their commercial value. After flowers have been gathered, they are exposed to the sun for drying. When dry, they are made into bouquets and hung up in dry rooms, out of reach of mice." (Mansfield.) For distribution later.

GREVILLEA BANKSII. (Proteaceae.) 34872. Seeds from Australia. Presented by Mr. James Pink, Wellington Point, near Brisbane, Queensland. "One of the most beautiful shrubs of Australia, evergreen, with red flowers and reaching a height of from 12 to 20 feet." (Pink.) For distribution later.

**ILEX CORALLINA.** (Aquifoliaceae.) 34836. Cuttings of a holly from Orleans, France. Presented by Messrs. Barbier & Company at the request of Messrs. Vilmorin-Andrieux & Co., Paris. "Among the new hollies recently introduced from China, *Ilex corallina* is one of the most remarkable; it is entirely different from all other hollies existing in our collections in its peculiar habit. According to Franchet it reaches a height of from 3 to 4 meters. It is a bushy shrub, smooth in all parts, with lenticular bark and glutinous buds. Its branches, long and slender, bend gracefully without being pendant; being very flexible, they are waved by the slightest breeze. Its leaves are very long, from 4 to 5 inches, and from  $1\frac{1}{4}$  to  $1\frac{1}{2}$  in width, are thin and rapidly become coriaceous; they are ovate-lanceolate, finely denticulate, brilliant deep green above and pale green beneath. The fruits are numerous, small, coral red, whence comes the specific name. This shrub, which is so graceful, has none of the rigidity of our hollies; it grows rapidly and does not seem dependent on the nature of the soil. It has stood our winters without injury, even as young seedlings; perhaps it is rash to present it as hardy for the north of France, but I am sure that for the climate of central France it will be an open air shrub. It will be very decorative for the cliffs of wild gardens, in large rockeries, just as it will have its place in massed effects with other species. We have grown this interesting novelty from seeds sent by Mr. E. H. Wilson, which were collected in the thickets near Mupin, central China, at altitudes of from 1500 to 1800 meters. He had already met this species the preceding year in the ravines around Ichang." (Léon Chenault, *Revue Horticole.*) For distribution later.

**KENNEDYA RUBICUNDA.** (Fabaceae.) 34842. Seeds from Australia. Presented by Lt.-Col. J. W. B. Field, Castlemaine, Victoria. A twining evergreen with dark red flowers. For distribution later.

**LAGUNARIA PATERSONII.** (Malvaceae.) 34843. Seeds from Australia. Presented by Lt.-Col. J. W. B. Field, Castlemaine, Victoria. "An Australian tree with white close-grained, easily worked wood used for building, which grows to a height of 40 to 60 feet and to a diameter of from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  feet. The bark furnishes a very beautiful fiber on maceration." (Maiden, *Useful native plants of Australia.*) For distribution later.

NICOTIANA RUSTICA. (Solanaceae.) 34820. Seeds of tobacco from St. Petersburg, Russia. Presented by the Director of Agriculture. Seeds of several strains of this species have been secured for the use of various tobacco growers interested in producing the best nicotine-yielding strains for the manufacture of commercial nicotine. For distribution later.

PERSEA AMERICANA. (Lauraceae.) 34855-856, 34904. Cuttings of avocados from Merida, Mexico. Presented by Mr. G. N. Collins, of this Bureau. From trees reported to be of unusual quality. For distribution later.

PHASEOLUS SPP. (Fabaceae.) 34888-900. Seeds of beans from Merida, Mexico. Presented by Mr. G. N. Collins of this Bureau who procured them in the Merida markets. Thirteen species and varieties of native beans. For distribution later.

SOLANUM SP. (Solanaceae.) 34866. Tubers of potato from near Guatrache, Argentina. Presented by Mr. W. F. Wight, of this Bureau. "These tubers came from near Guatrache, Argentina, where there has been practically no rain since last May. It is said the Indians eat them raw and while the taste is agreeable enough at first I can't say the taste later is particularly good." (Wight.) For distribution later.

STERCULIA QUADRIFIDA. (Sterculiaceae.) 34873. Seeds from Australia. Presented by Mr. James Pink, Wellington Point, near Brisbane, Queensland. "An umbrageous tree producing its seeds in large pods which when ripe are a brilliant crimson color containing black seeds which are sometimes eaten by children. When ripe the pods burst open and their bright crimson color contrasting with the black seeds gives the tree a very handsome and striking appearance." (Pink.) For distribution later.

STEVIA REBAUDIANA. (Asteraceae.) 34883. Seeds from Villarica, Paraguay. Presented by Sr. Carlos Mahaux. "This Paraguayan herb is of peculiar interest because of the very large saccharin content in the leaves. A tiny fragment placed on the tongue seems as sweet as a lump of sugar of similar size. Several years ago the discovery that this plant, then called Eupatorium contained a substance many times sweeter than sugar, was heralded by the press and excited the keen interest of sugar planters all over the world. The substance turned out to be a glycerine

and the anxiety of sugar interests subsided." (Fairchild.) For distribution later.

VIGNA SINENSIS. (Fabaceae.) 34859. Seeds of a black bean from San Salvador, Salvador. Presented by Mr. Thomas Hinckley, American consul-general, who procured them through the Sociedad Nacional de Agricultura, at the suggestion of Mr. R. T. Ruiz. "A black pole bean so prolific as to defy comparison. It is found in its best state in the Department of Chalatenango. The best trait of this bean beside its splendid flavor is the fact that it is sown in the same hill with Indian corn at the same time the latter is being sown, and it matures with the corn, the stalk of the latter being its natural support." (Ruiz.) For distribution later.

#### NOTES FROM CORRESPONDENTS ABROAD.

PARAGUAY. Asuncion. Mr. C. F. Mead writes that "Plant prospects will be better in the future as within a month I shall be at work on the new constructions, one northeast from Borja to Iguazu Falls, and the other directly south from Paraguari through the Misiones. There's no telling what can be found there."

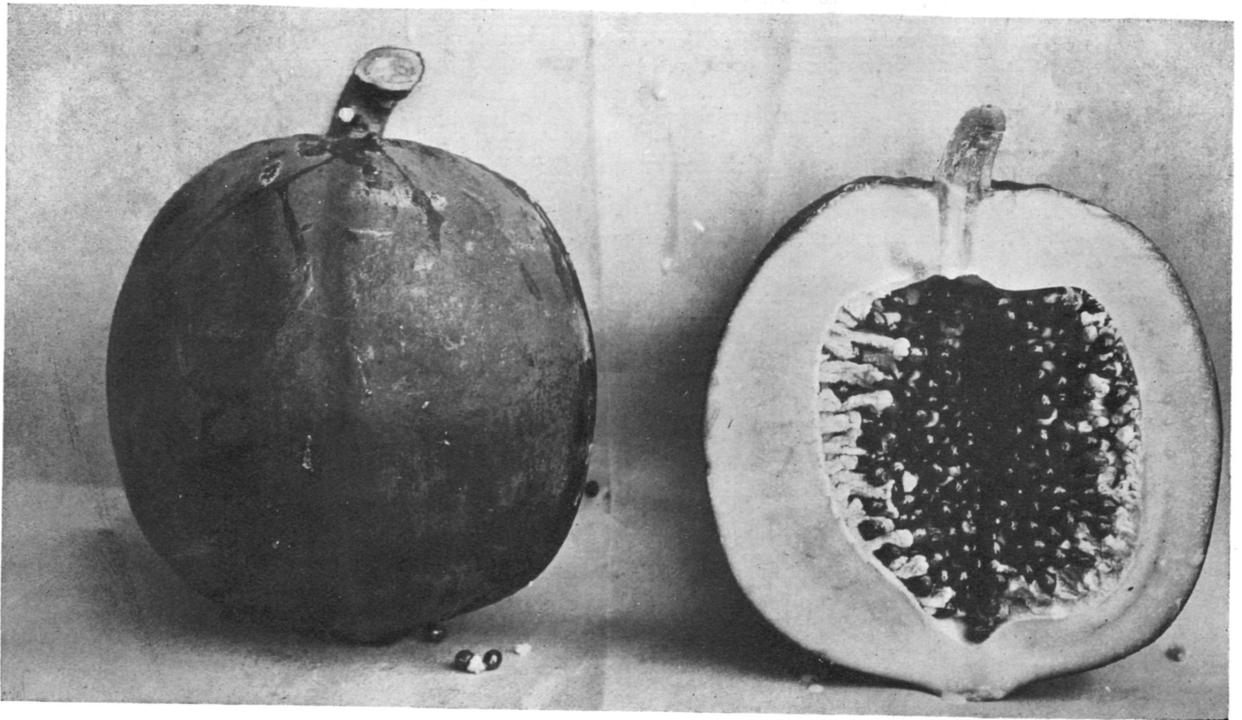
INDIA. Coimbatore. Dr. C. A. Barber, sugar cane expert, writes that he has been unexceptedly successful in raising seedling canes in India, his present crop being probably some 10,000.

SIBERIA. Tomsk. Mr. Frank N. Meyer, Agricultural Explorer writes Feb. 1 that he is visiting the University there to see botanists and collectors there, after which he expected "to leave for Krassnoyarsk where a Government nursery exists where fruit trees are being cultivated. Then on to Irkutsk, then Chita and after that either to Nertchensk known for its wild crab-apples, or straight on to Harbin, from where I am only a few days distance from Peking."

CHILE. Santiago. Mr. W. F. Wight writes January 13 that he will probably be in Chile for at least two months and a half carrying on his investigations on patotoes.

MESOPOTAMIA. Tigris River. Mr. Paul B. Popenoe writes on Dec. 30, from the Steamer Julnar, that he has been delayed for five weeks in Bushire in the hands of the

American missionaries, "toying with typhoid fever," but that he is in fine shape now. "With my brother Wilson's help I was able to work up the Bushire date varieties pretty thoroughly. As you state, commercialism has kept the growers pretty well confined to a few kinds. I discovered only 30 or 35, half of them insignificant. Khadrawi appeals to me most strongly, in view of its performances in the United States, but I am importing ten or a dozen kinds, some of which will be certain to interest you. I do not know if your importation of Berki was successful, but I am getting 100 offshoots (they are scarce) for both Wilson and I agree with you that it is the best date of the region, and we think that as far as flavor alone is concerned there are few better in the world. Mr. Chalk puts 'Aweydi' ahead of it, and probably there is not much to choose, except that offshoots of the latter variety cost \$2 up apiece. You may have seen this date, although you do not mention it. It is very similar to Hwezi (Hevezi). I fancy some of my Oman discoveries will interest you as much as anything, I have five varieties for instance that mature before June 15, and a new Fard that ripens one month sooner than the regular article but otherwise can not be distinguished from it. Through a friend at Bahrein I was able to get 1000 Khlasa offshoots and unless something unforeseen occurs, I believe it will be a memorable day for California date culture when they are unloaded at Indio. Wilson and I think that as a commercial date this is fully equal to the Deglet Noor (although perhaps not as a simple confectionery) and that its lighter color and attractive appearance will make it compete successfully with that date when the two are placed side by side in the open market."



THE SIMMONDS PAPAYA. S.P.I. No. 28536.

This is a seedling from a fruit which was borne by a tree grown from seed sent in by Mr. W. G. Ross of the Panama Canal Zone in 1910 (S.P.I. No. 28536). It is the best seedling out of sixty which were grown from seed of the same identical fruit. Its globular shape, medium size and thick flesh ought to make it a good shipper and the mild flavor makes it peculiarly acceptable to those who have never eaten a papaya and learned to appreciate a more pronounced papaya flavor. Grafts from this tree will be made in accordance with the method outlined in a forthcoming Circular of the Bureau of Plant Industry and the grafted plants distributed for trial. It is named after Mr. Edward Simmonds, gardener in charge of the Field Station at Miami, Florida, in recognition of his successful work in the grafting of the papaya.