

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

NO. 85.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

March 16, 1913, to May 1, 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.

Aconitum	35126	Cotoneaster	35128
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PLATE: *Persea americana*.

MATTER IN THIS BULLETIN IS NOT TO BE PUBLISHED WITHOUT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

ACONITUM SCAPOSUM. (Ranunculaceae.) 35126. Seeds of an ornamental aconite from the Royal Botanic Gardens, Glasnevin, Dublin, Ireland. Presented by Sir F. W. Moore, Director. "Var. pyramidalis. A strong-growing hardy herbaceous perennial with foliage typical of the genus and pyramidal spikes of dark blue flowers crowded on the upper two-thirds of a scape 2 to 2½ feet in height. The flowers consist of a long blue spur with little or no hood and the small petals are whitish tipped with green. It is a native of Central China." (Hortus Veitchii, p. 413.) For distribution later.

ACTINIDIA CHINENSIS. (Dilleniaceae.) 35133. Plants from London. Purchased from Messrs. James Veitch and Sons. These are cuttings from the female plant which ripened fruit in England in 1911, and are the first known female plants of this promising fruit producing species to be introduced into this country. The male flowers and the general appearance of this plant were illustrated in Bulletin No. 50 of this series. For distribution later.

AMYGDALUS FENZLIANA. (Amygdalaceae.) 35205. Seeds from the Botanic Gardens, Tiflis, Caucasus. Presented by the Director. "A shrubby ornamental almond, flowering in early spring, with white flowers; growing in semiarid sections in the eastern Caucasus. Suggested as a stock for almonds and other stone fruits in mild-wintered, semi-arid sections, also of value, possibly, in breeding a bushy drought-resistant strain of almonds for semiarid regions." (Meyer.) For distribution later.

AMYGDALUS NANA. (Amygdalaceae.) 35206. Seeds from the Tiflis Botanic Garden, Caucasus. Presented by the Director. "The flowers of this species are rose-colored and solitary, making their appearance in March. The flowers are of the same form as those of the almond, but are, however, much smaller. The leaves are oblong-linear and attenuated at the base, and are serrated and quite glabrous. This shrub reaches a height of only from 2 to 3 feet." (Nicholson, Dictionary of Gardening.) For distribution later.

ARALIA MANDSHURICA. (Araliaceae.) 35148. Seeds from the Museum of Natural History, Paris. Presented by the Director. "This species is perfectly hardy and will

thrive anywhere in England, producing large and elegant foliage, which however, falls at the first touch of frost. The stems which are prickly are quite hardy, and attain a height of ten feet or so. When once established this plant can be easily propagated by suckers which rise from the base. During the summer its appearance is considerably enhanced by the large trusses of flowers, which if not individually beautiful, give the plant a further subtropical appearance. As the leaves have a great spread when fully matured, abundance of room must be allotted to the plants when planted, a matter which might easily be overlooked, as when denuded of their foliage one can hardly imagine them to be the same plant." (The Garden, March 1, 1913.) For distribution later.

BUDDLEIA NIVEA. (Loganiaceae.) 35093. Seeds from La Mortola, Ventimiglia, Italy. Presented by the Director, Mr. Alwin Berger. "A new species from Central China and of doubtful promise. The flowers not so striking as some of the species recently introduced, but this defect is compensated for by the great beauty of the foliage, the whole under surface of which is, together with the young wood and leaves, covered with a dense white woolly tomentum. The flowers in tail-like panicles at the end of the branch are rose-purple in color, individually small, but in a mass conspicuous." (Hortus Veitchii.) For distribution later.

CACARA EROSA. (Fabaceae.) 35135. Seeds of the yam bean from San Jose, Costa Rica. Presented by Mr. Rafael Arias C., through Mr. J. E. van der Laat, director of the Department of Agriculture. This is a Salvadorian form of the yam bean so highly recommended by Mr. William Harris, Superintendent of Hope Gardens, Jamaica, as a garden vegetable. For distribution later.

CARICA CANDAMARCENSIS. (Papayaceae.) 35142-143. Seeds of a papaya from Nice, Alpes Maritimes, France. Presented by Dr. A. Robertson-Proschowsky, Chemin des Grottes, St. Helene. "A small semi-herbaceous tree with a crown of large coarse palmate leaves, native of Colombia and Ecuador, similar to the papaya of the low-country, but with fruit only about $\frac{1}{2}$ or one sixth the size of that of the latter. The ovoid angular fruit is in season all the year around; though too acid to be used for dessert, it is very agreeable when stewed, and it can also be made into jam and preserves. When ripe the fruit has a pleasant

apple-like odor." (Macmillan, Handbook of Tropical gardening.) Introduced in order to give plant breeders the opportunity of trying hybridization experiments between this species and the ordinary *Carica papaya*, in the hope of increasing the acidity in the fruit of the hybrids, bringing out new flavors, and increasing the area over which the papaya may be cultivated. For distribution later.

CLEMATIS HERACLEAEFOLIA. (Ranunculaceae.) 35127. Seeds of a clematis from the Royal Botanic Gardens, Glasnevin, Dublin, Ireland. Presented by Sir F. W. Moore, Director. "This is a distinct and curious species. The plant is sarmentose, but not climbing, its branches, $4\frac{1}{2}$ to 6 feet long hang from the rocks or creep over the soil. The leaves are large, 9 inches long and 8 inches broad, composed of five leaflets, the terminal being much larger than the others. They are dentate and of a deep green tint, somewhat shiny. The flowers are very numerous, borne in large panicles, rather small, of the same form and size of those of *C. vitalba*, but of a light blue color. They seed rarely but the species may be easily increased by grafting. The profusion of the little bluish flowers in immense racemes from August to November makes the plant a very decorative one. It grows in shady or sunny positions and in any good soil." (Gardeners' Chronicle.) For distribution later.

COTONEASTER SIMONSI. (Malaceae.) 35128. Seeds of a cotoneaster from the Royal Botanic Gardens, Glasnevin, Dublin. Presented by Sir F. W. Moore, Director. "This Himalayan shrub is certainly a fine one and should encourage lovers of trees and shrubs to plant the species more frequently in positions where the individual character of the tree will be seen to advantage when it attains something like its full growth. When trained against a wall the branches of this species often reach heights of from 10 to 12 feet. It is sometimes used, however, as an edging to garden paths where it gets neither support nor shelter. *C. simonsi*, though not exactly erect, is self supporting and when so grown is about six feet high and four feet through. It fruits freely, but unfortunately it is not perfectly evergreen, although it withstands the milder winters. It is sometimes so thickly covered with bright red berries that it becomes scarcely possible to place one's finger between them." (Gardeners' Chronicle.) For distribution later.

COTONEASTER SPP. (Malaceae.) 35179-183. Seeds of Cotoneasters from Paris. Presented by Mr. Maurice L. de Vilmorin. A collection of five species from the private fruticetum of Mr. Vilmorin, No. 35179 being grown from seed No. 1133 collected by Mr. E. H. Wilson in Central China, and the others from the collections of Mr. H. M. Vilmorin. For distribution later.

LONICERA THIBETICA. (Caprifoliaceae.) 35188. Plants of a honeysuckle from the private fruticetum of Mr. Maurice L. de Vilmorin, Les Barres, Nogent sur Vernisson, Loiret, France. "A shrub from one half to one and a half meters in height, with slender spreading and recurving, often recumbent branches forming a dense intricate bush much broader than high; young branchlets villose-puberulose or tomentulose; older branches clothed with greyish-brown shredding bark. Flowers appear in May and June and sparingly during the whole summer and autumn. Fruit ripens in August and September. This Lonicera in the Arnold Arboretum proved hardy with slight protection during the winter and seems well suited for planting on rocky slopes and banks. The flowers are very fragrant, and the bright color of the berries makes the shrub ornamental in Autumn." (C.S.Sargent.) For distribution later.

LONICERA SPP. (Caprifoliaceae.) 35189-190. Plants of honeysuckles, from Mr. Maurice L. de Vilmorin, Les Barres, Nogent sur Vernisson, Loiret, France. Two promising species as yet undetermined from Mr. Vilmorin's private fruticetum, which is probably the greatest collection of ornamental shrubs ever brought together. For distribution later.

LYCOPERSICON SPP. (Solanaceae.) 35151-154. Seeds of tomatoes from the Museum of Natural History, Paris. Presented by the Director. Introduced for the use of breeders in the attempt to bring together all recorded species of this valuable fruit. For distribution later.

MISCANTHUS JAPONICUS. (Poaceae.) 35227. Seeds from Naples. Purchased from Messrs. Dammann and Company. "This grass has been found in our experimental work to produce a light bulky paper in many respects similar to that made from esparto. The yield of fibre is up to the average of esparto, and there may be areas where the plants can be grown especially for paper making. It thrives on the poorer soils in this region and has been grown with some success even in Maine; the excessive winter killing there, however, would prevent its becoming a successful crop plant." (Charles J. Brand.) For distribution.

PERSEA AMERICANA. (Lauraceae.) 35121. Seeds of an avocado from Caracas, Venezuela. Presented by Mr. H. Pittier of this Bureau. "This aguacate is called Veranero, on account of the crop coming at the end of the dry season, while the high time for the other varieties growing about Caracas is August. It is smaller than the common varieties coming from the Tierra caliente which can also be obtained now in the market. Besides its outer color is characteristically yellow, and it has a special very fine flavor. As it grows here up to above 1400 meters, it should do well in Southern California and in other parts of the South where the rain is somewhat scarce." (Pittier.) For distribution later. See halftone.

RUBUS BIFLORUS QUINQUEFLORUS. (Rosaceae.) 35197. Plant of a Chinese bramble from the private fruticetum of Mr. Maurice L. Vilmorin, Les Barres, Nogent sur Vernisson, Loiret, France. "This is the most striking of all the brambles introduced by Mr. Wilson. He collected seeds in West Szech'uan, southeast of Tachien-lu, at an altitude of 5000 feet to 6000 feet. The growths are particularly strong, being 12 feet in height, and the stems $4\frac{1}{2}$ inches in circumference at the base. The waxy-white bloom on the stems is a particularly striking feature. They are armed with large, stiff spines, $\frac{1}{2}$ inch in length. The leaves are pinnate, about a foot in length, and generally consist of five leaflets, which are white beneath and green above. The flowers are white, $\frac{3}{4}$ inch in diameter, being borne in terminal and axillary panicles of about five flowers. The fruit is a rich, golden-yellow color, equal in size to those of most of our cultivated raspberries, and of a good flavor. This species, so far as I am able to judge, is likely to prove the most useful of the Chinese raspberries to the hybridist for raising new fruits." (Gardener's Chronicle, March 9, 1912.) For distribution later.

SICANA ODORIFERA. (Cucurbitaceae.) 35136. Seeds of a "calabaza" melon from Tampico, Mexico. Presented by Mr. Clarence A. Miller, American consul. Seeds of a remarkably fragrant maroon skinned, yellow-fleshed cucurbit, the pulp of which makes excellent preserves. For distribution later.

NOTES FROM CORRESPONDENTS ABROAD.

CHINA. Kutien. Mr. T. H. Coole, Wiley General Hospital, writes March 14, 1913: "Regarding the ripening of the persimmon it is as follows: An earthenware jar

about 2 feet in height is packed tight with persimmons while they are still green, just turning. The mouth of the jar is filled with rice straw. They think rice straw better than wheat straw. The jar is then turned upside down in pans with some water in so that a water seal is made. In about thirty days they are ripe and good to eat."

MEXICO. Contreras. Mr. William Brockway writes April 2, 1913: "I have been on the frontier and in Mexico since 1882, some 15 years ago I established an experimental garden and orchard for a plantation company on the Isthmus of Tehuantepec, and know the country from one end to the other and know of many good things worthy of introduction and cultivation, and only wish I were so fixed that I could give time and attention to it.

"Referring to the corn mentioned in your letter of March 12th. The name is Quarenteña (40 days). I have eaten this corn boiled in places along the lower Balsas River as early as February 14th. I trust you will pardon me for taking up your time but I am very much interested in these matters.

"In the Guerrero country we also have the Ajoujoli (sesame) which is grown there extensively as a crop. The seeds are sold in large quantities to mills that grind and press out the oil which is used in the finest native dishes (mole de guacalote, etc.) cooked. The oil is much superior to olive oil and is used also by watchmakers and for fine machine oiling.

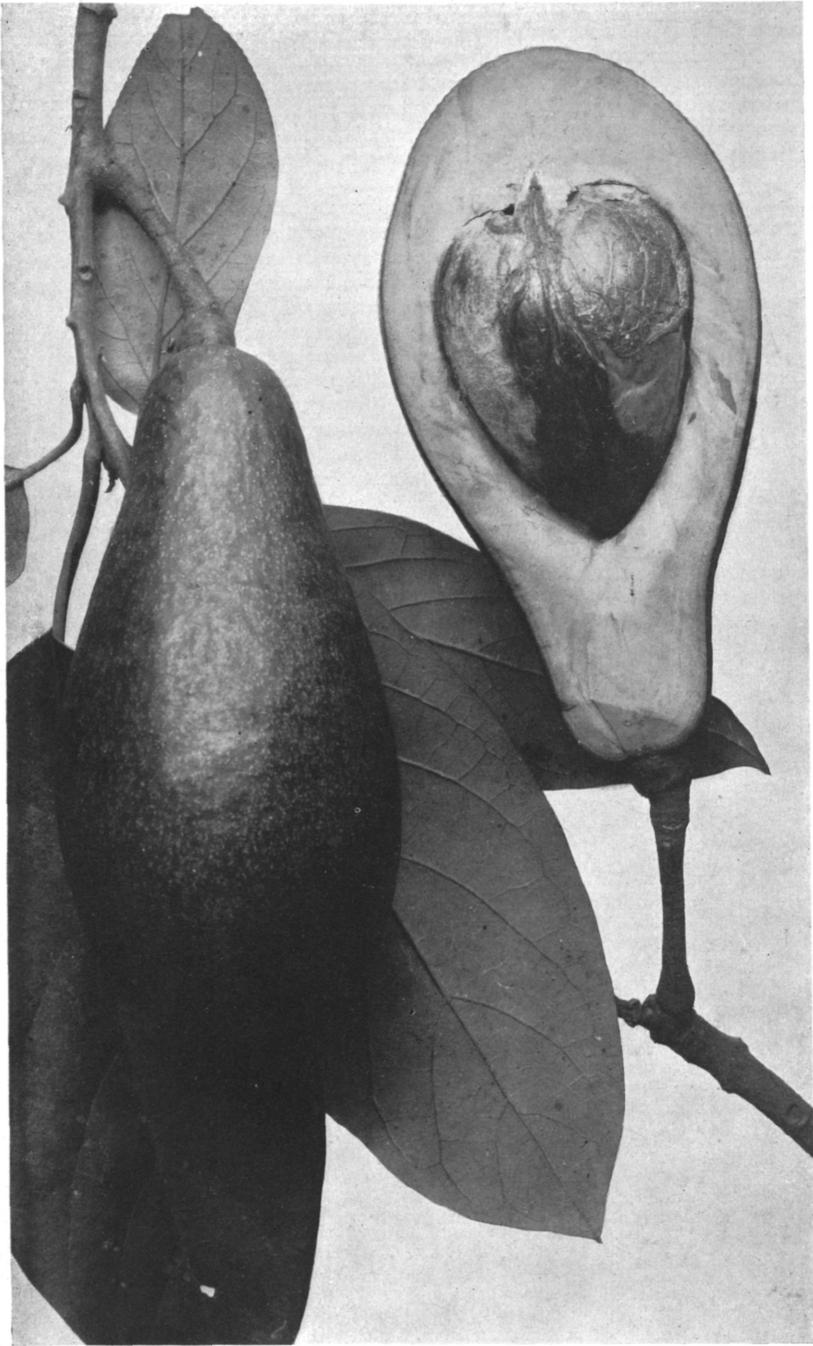
"Cascalote is a bean growing on a tree much resembling the mesquite. This tree is protected by law of government, and is one of the best tanning materials ever used. The bean of the species we have here would almost revolutionize the tanning industry if better known. It will tan a cow hide in eight days, goat skins in three days. This could be grown all along the Rio Grande River country, California, etc.

"Cherimoya - I know of a fruit of this order growing in that country much superior to any I have ever seen. The pink-fleshed pulp resembles a watermelon, a flavor of pineapple, apricot, and strawberry. Fruit grows as large as a sugar bowl. Weight about 2 lbs.

"Guava - I know of a tree of this variety, Isthmus of Tehuantepec, growing 30 to 40 feet high. Fruit as large as a lemon and same color. The most acid fruit I have ever met with. We cooked it with four times its weight of sugar and then could barely eat it.

"Ten years ago I found a hybrid blackberry raspberry growing wild. A wild cherry as large as any cultivated cherry. Made them into pies and they were splendid. Wild grape vines 60 feet long. Also an annual grape that dies down every year, and produces large bunches of wild grapes (wine color). This is a very valuable vine for all grape growing countries. I also know of several very valuable varieties of the spineless cactus, growing so naturally."

VENEZUELA. Caracas. Mr. H. Pittier writes April 5-13, as follows: "I have gotten information yesterday on a fruit they call Chirimo-riñon and which is said to be a cross between *Annona cherimolia* and *A. squamosa*. The prospects were certainly not good here at first. Fortunately President Gomez is a man of good sense and good will and I found also in several of his Secretaries and in Dr. Jahn a very strong help, so that to-day it looks as if things were coming my way. At my suggestion, they have abandoned the idea of spending half a million in erecting in the wilderness of Maracay, buildings for a problematic school. The farm there will be used for an Experimental breeding Station and at my suggestion they have asked the Bureau of Animal Industry to send a good cattle man, not a baby Veterinary surgeon, but an experienced breeder, to take charge of it. The position is a fine one for the right man. On the other hand, instead of a school, they will establish here in Caracas, a real agricultural station, taking as a start the existing embryonic Estacion agronómica. They will also have nurseries and a distributive center that will do more good than all the theoretical teaching in the world. I have had lectures started on agriculture, horticulture and gardening at both the Escuelas de Artes y Oficios for men and women and in the latter they are giving the first steps towards the establishment of a big garden which the girls will cultivate themselves under the direction of Mr. Miesse, the present chief of the Agronomic Station. The same thing will be done at the normal school for girls and I am expected to start a course of lectures there in a few days. Last but not least, I am going to give a lecture next Tuesday, to the farmers, on some important points in coffee cultivation. You see, then, that since my last letter, there has been something doing, and that I have borne high the flag of the Agriculture Department."



PERSEA AMERICANA.

Avocado.

The Veranero from Caracas, Venezuela. A fine flavored variety with a characteristically yellow skin ripening at the end of the dry season (March), whereas the ordinary varieties there ripen in August. It grows at an altitude of 4500 feet and may prove adapted to Southern California. From photograph by Mr. H. Pittier, who sent in the seeds for propagation, March, 1913. S.P.I. No. 35121.