

NO. 53.

## BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

December 1 to 15, 1910.

## NEW PLANT IMMIGRANTS.

- CITRUS SP.** (Rutaceae.) 29160. Seedling plant of Etonia or flowering citrange. "This is a hybrid between the common orange and the trifoliolate, having the same parents as the Colman, Morton and other standard citranges. So far it has borne almost no fruit. On the other hand, it flowers profusely in early spring, and the flowers are very large in size, larger than those of either parent. They appear with the leaves and are often so abundant as almost to hide the foliage. This variety is being distributed on a small scale for trial in cities for door-yard planting, where an ornamental rather than a fruit tree is desired." (Swingle.) For distribution later.
- CORDEAUXIA EDULIS.** (Caesalpinaceae.) 29122. Yeheb nuts from the Royal Botanical Gardens, Kew, England. Presented by Dr. David Frain, Director. "The Yeheb plant grows on poor sandy soil in the dry regions of Somaliland; the underground soil is said to be somewhat moist and at certain seasons of the year there are regular and plentiful rains in the localities where the plant grows. The Yeheb is an evergreen bush from 4 feet high up, and the stewed or boiled seeds are an important article of food among the Somalis. At Kew seedlings have been raised without difficulty under moist tropical conditions but it is hoped that it may be possible to establish the plant in dry regions where the soil is poor and the conditions are similar to those of its native country." (Kew bulletin, 1908, No. 1, p. 36-44, No. 3, p. 141.) For distribution later. See photograph.
- CRATAEGUS SP.** (Malaceae.) 29150. Cuttings of hawthorns from near Kan-shugan, Chinese Turkestan. "A hawthorn of dense growth reaching the size of a small tree. Leaves large and densely lobed, berries pale yellow. Found on stony places along water-courses at elevations of 7,000 and 8,000 feet above sea. Of value as an ornamental park and garden tree in the northern sections of the United States." (Meyer's introduction.) For distribution later.
- CRATAEGUS PINNATIFIDA.** (Malaceae.) 29103. Seeds of Chinese haw. Presented by Mr. T. M. Wilkinson, Foochow, China. "San cha. In habit this fruit tree is very much like the American thorn-apple or hawthorn, but the fruit is much larger, being an inch to one and a quarter inches in diameter. It is semi-tart and makes delicious sauce and preserves." (Wilkinson.) For distribution later. See photograph.

**DIOSPYROS SP.** (Ebenaceae.) 29102. Seeds of persimmon. Presented by Mr. T. M. Wilkinson, Foochow, China. "I am told that this grows as far north as Shanghai. The fruits are large, many of them being 2 inches in diameter, skin and pulp red. Sweet and fine flavored. Grows from valley to mountainside." (Wilkinson.) For distribution later.

**DIOSPYROS SPP.** (Ebenaceae.) 29111-29114. Seeds of Diospyros from Peradeniya, Ceylon. Presented by Mr. John C. Willis, Director, Royal Botanic Gardens. Four native Ceylonese species introduced for the work of the Office in breeding improved varieties of Diospyros. For distribution later.

**DIOSPYROS SP.** (Ebenaceae.) 29116. Seeds of usually seedless persimmon. Presented by Mr. E. T. Williams, Division of Far Eastern Affairs, State Department, through Dr. R. H. True. "Some years since, when Mr. Frank Meyer was in China, he asked me to obtain for him if possible some seeds of the Chinese persimmon which are for the most part seedless. I mentioned it at the time to a friend, who is now in Nanking and who has sent me these seeds just found in a persimmon. If he had sent a quantity an interesting experiment might have been made, since all Chinese persimmons are propagated by grafting upon the wild stock." (Williams.) For distribution later.

**LONICERA SP.** (Caprifoliaceae.) 29146. Cuttings from Chinese Turkestan, near Irkestan. "A shrubby honeysuckle, inhabiting remarkably dry stony and windswept places at altitudes of often over 9000 feet above sea, and having small somewhat downy leaves and bearing yellow berries. Recommended as an ornamental garden shrub and possible hedgeplant in the dry cold sections of the United States." (Meyer's introduction.) For distribution later.

**MEDICAGO FALCATA.** (Fabaceae.) 29139. Seed of alfalfa, from Lahul, in the heart of the Himalayas, near Kashmir. Presented by Gen. F. Booth Tucker, The Salvation Army, Simla, India. "Lahul is a valley 10,000 to 11,000 feet above the sea, surrounded by glaciers and snowy mountains and covered with snow during the winter months." (Tucker.) For distribution later.

**MEDICAGO HISPIDA DENTICULATA.** (Fabaceae.) 29138. Seed of bur clover from the Panjab Agricultural College. Presented by Gen. F. Booth Tucker, Salvation Army, Simla, India. "This is known here as Maina. The Director of Agriculture tells me that this is an excellent fodder for cattle, and especially for milch cows, but that it is not suitable for horses." (Tucker.) For distribution later.

**MELINIS MINUTIFLORA.** (Poaceae.) 29100. Seed from Brazil. Presented by Dr. Orville A. Derby, Servico Geologico e Mineralogico do Brazil. "The species of grass named *Panicum melinis* (*Melinis minutiflora*) occurs in at least two distinct varieties: *capim catingueiro roxo* and *catingueiro claro*. The *Melinis minutiflora* is certainly but a synonym of the *Panicum melinis* and no distinct species. A variety has been found at Petropolis, but as I had no opportunity to see this variety I think it is an adaptation to the different conditions of humidity in the mountains." (Alberto Lofgren, Director, Botanical garden, Sao Paulo, Brazil.) For distribution later.

**NICOTIANA TABACUM.** (Solanaceae.) 29163. Tobacco seed, from the District of Mascota, Jalisco, Mexico. Presented by Dr. Pehr Olsson-Seffer, Mexico City. "This seed is of a form which supplies the cigar leaf of the locally well-known Mascota cigars, and is considered one of the best in this country." (Olsson-Seffer.) For distribution later.

**PERSEA GRATISSIMA.** (Lauraceae.) 29161. Seeds of avocado, from Barbados, British West Indies. Presented by Mr. A. S. Archer, Antigua. "The fruits from which I obtained these seeds were purple and weighed each from 2 pounds 10 ounces up to 3 pounds 2 ounces and nothing better could have been desired. The seed cavity was small." (Archer.) For distribution later.

**PHYTOLACCA ACINOSA.** (Phytolaccaceae.) 29133. Seed from Japan. Purchased from the Yokohama Nursery Company, Yokohama. "Variety *esculenta*. This is a perennial found wild only in moist mountain forest undergrowth. The leaves are eaten boiled in Miso soup by rural people; root is somewhat poisonous, used as a drug by herb medical school and berries are not edible." (Yokohama Nursery Company.) For distribution later.

**POPULUS SP.** (Salicaceae.) 29148. Cuttings of poplar from Chinese Turkestan, near Irkestan. "A poplar found here and there in clumps on sandy flats and on alkaline places. Leaves round, elliptical, color of trunk and twigs gray-white. The trees do not grow apparently to very large sizes. Of value as shade trees and as wind-breaks around gardens in alkaline sections in the northern parts of the United States." (Meyer's introduction.) For distribution later.

**POPULUS TREMULA.** (Salicaceae.) 29098. Cuttings from Tiflis, Caucasus, Russia. Presented by the Tiflis Botanical Garden. "The wood of this tree is used almost exclusively in the match-industry of Sweden. Undoubtedly the other species of *Populus*, i.e., *P. alba* and *P. canescens* could be used to advantage for the same purpose but for the fact that the latter are not so

abundant as *P. tremula*. *P. tremula* does not appear to have been noticed by botanists in America although it is frequently found planted in our parks. It is readily recognized by its large, 1 cm. long and one half as wide, dark-brown buds. These are rather blunt and not pointed as in the case of the Lombardy and Carolina poplars. *Populus tremula* was in all probability introduced into Maryland by the early settlers, as it and other species are frequently found about the old mansions." (Mr. I. Tidestrom, in letter suggesting the cultivation of the aspen for match wood production.) For distribution later.

**RAJANIA PLEIONEURA.** (?) (Dioscoreaceae.) 29129. Tuber of "Waw-waw". Presented by Mr. Robert M. Grey, Superintendent, Harvard Botanical Experiment Station, Cienfuegos, Cuba. "A large tuber that was brought in by one of the Guajiros from the hills under the name of 'Guagua name', but I did not see the stem or foliage so am not sure that it is *Rajania pleioneura*, which is also known here under the name of 'Alambrillo'." (Grey.) For distribution later.

**REAUMUREA SP.** (?) (Tamaricaceae.) 29147. Cuttings from Chinese Turkestan, near Irkestan. "A tamarix-like shrub found on very sandy and alkaline flats; of sand-binding qualities. Recommended for these last properties in sandy sections in the northern parts of the United States. Found at elevations of 8,000 feet and less." (Meyer's introduction.) For distribution later.

**RIBES NIGRUM.** (Grossulariaceae.) 29142. Cuttings from near Terek-Daran, Russian Turkestan. "A black currant found growing in a cold, stony canon at an elevation of over 9,000 feet above sea. A very palatable preserve can be made from the ripe berries, as the Russians do who live here and there in the mountains. This shrub may be of value as a garden fruit in the most northern sections of the United States." (Meyer's introduction.) For distribution later.

**RIBES RUBRUM.** (Grossulariaceae.) 29141. Cuttings from near Guldscha, Russian Turkestan. "Red currant found growing on a dry mountain side at an elevation of about 6,000 feet. Of vigorous growth, the tallest stems being 8 feet long. Of value in hybridization experiments and, when somewhat improved as a hardy garden fruit, for the northern sections of the United States." (Meyer's introduction.) For distribution later.

**SACCHARUM OFFICINARUM.** (Poaceae.) 29106-109. Cuttings of Japanese sugar cane. Purchased from the Yokohama Nursery Co., Yokohama. No. 29106. "Chikusho. Early variety." No. 29107. "Earliest variety from Kagawa Ken." No. 29108. "Kikaigashima. Early

variety from Kagoshima Ken." No. 29109. "Oshima. Early variety from Kagoshima Ken." All introduced like No. 28193 for forage crops in the Southern States. For distribution later.

**SALIX SP.** (Salicaceae.) 29143. Cuttings from Guldscha, Russian Turkestan. "A willow found on sandy alkaline flats, having long, very narrow leaves and reddish twigs. The trunks, when getting old, assume a black color, and are often turned and gnarled. The wood is of harder quality than any other willow I ever saw. The trees grow only to moderate sizes and may be of value as ornamental garden and park trees and as wind-breaks in alkaline sections of the United States. The young twigs are very pliable and may be employed as a tying material." (Meyer's introduction.) For distribution later.

**SALIX SP.** (Salicaceae.) 29144. Cuttings from Chinese Turkestan, near Irkestan. "A shrubby willow with reddish twigs and very lanceolate leaves, found growing on very sandy and on alkaline places. Has sand-binding qualities, while the young twigs are fit for tying purposes and for basket material. Of value in sandy and alkaline sections of the United States, as a hedge-plant and an arrester of moving sands." (Meyer's introduction.) For distribution later.

**SALIX SP.** (Salicaceae.) 29145. Cuttings from Chinese Turkestan, near Irkestan. "A tall, shrubby willow having reddish young twigs while the stems get quite white when older. Growing on alkaline flats on windswept places. Of value as a wind-break and hedge material in alkaline sections in the northern parts of the United States." (Meyer's introduction.) For distribution later.

**TAMARIX SP.** (Tamaricaceae.) 29149. Cuttings from near Ulukshat, Chinese Turkestan. "A tamarix of low-growing habit found on sandy and alkaline level places. Arrests blowing sands quite well; found at elevations 7,000 and 8,000 feet above sea. Recommended for sand-binding purposes in the colder sections of the United States." (Meyer's introduction.) For distribution later.

#### NOTES FROM FOREIGN CORRESPONDENTS.

**CHINA, Canton.** Mr. G. Weidman Groff writes without date that he is off to attend the Nanking Exposition, the first national exposition held in China. He expects to spend all his time there in a study of the agricultural products from all the provinces of the empire. He hopes to be able to make us a complete report on the agricultural exhibits. He is sending by a friend who is coming to America, *Zizania latifolia* (woo kau or kau sun) and *sagittaria* tubers (fu tau).

CHINA, Kiating. Rev. John P. Davies of the American Baptist Mission writes October 24 that the seeds of the lan muh tree (*Machilus nanmu* ?) or nanmu would not be ripe till May or June, but that he would attempt to get them for us then. Meanwhile he is sending a number of cuttings to Mr. MacGregor, Superintendent of Parks and Open Spaces at Shanghai, to be sent us when opportunity offers. He says the trees will probably not stand the frost, so should be planted in the south.

CHINA, Ngu-cheng, via Foochow. Mr. Harry R. Caldwell writes October 29 that he would like to see introduced into this country "a certain kind of berry which seems full of promise were it given a favorable chance under cultivation. As the berry grows wild it is exceedingly delicious, and would certainly be marketable. The berry grows upon a shrubby tree from one to three feet in height; is about the size of the egg of the English sparrow, and is of a deep purple color with a very decided frosted appearance."

CHINA, Tientsin. Mrs. Dr. Yamei Kin writes November 6 that she has obtained a furlough and will visit America. She calls attention to a seedless variety of the Chinese jujube, superior to the ordinary varieties. She says the persimmons having the constriction are ripened there, not by acetic vapor, but by steaming or dipping in hot water for a few moments, a day or two previously to being used. She regrets that the calabash gourds sent her, while growing very nicely, were harvested by her women one day and served in a stew with meat when the gourds were four or five inches long. She says, "Really, gourds are not bad as a vegetable, though I had never seen them so used, and perhaps did us all as much good as if we had been able to make pipes".

INDIA, Kashmir. Leh. Mr. Rassul Galwan writes October 30 that in about two weeks he hopes to send seed of the wild alfalfa (*Medicago falcata*) of the same heavy seeding strain sent by him some time ago. He has just returned from a long journey from Leh to Gilget, Kashgar and Yarkand, taking from April 13 to October 22.

INDIA, Simla. Mr. F. Booth Tucker writes November 14 that he has arranged with the Superintendent of the Government Agri-Horticultural Gardens at Lahore to send us sample seeds of oranges, pomelos, limes and lemons from North India which are able to stand a moderate frost. He is also arranging to get some seed from their next crop in the Kulu Valley. The Salvation Army has there an orange orchard consisting of Maltese and Calabrian varieties which have been doing exceptionally well. The elevation is about 4,000 feet, surrounded by mountains, ranging from

7,000 to 9,000 feet. There is a good deal of frost in the valley, but no snow. He will send orange and lemon seeds in January.

**INDIA**, Zafarwal. Mr. H. S. Nesbitt writes from the American Mission November 16 that he thinks "without doubt the Medicago is identical with our spring fodder plant very common here and called in the local parlance 'Sinjhi', about as you would say 'seenjee' in America. The seed as well as the blossom has a fragrant odor. The crop will be planted soon and be cut in March or April. It grows very rank on good soil and is much used for milch cows. The Sinjhi here has a yellow blossom. I have some of the seed to send you soon, and also plant specimens when ready."

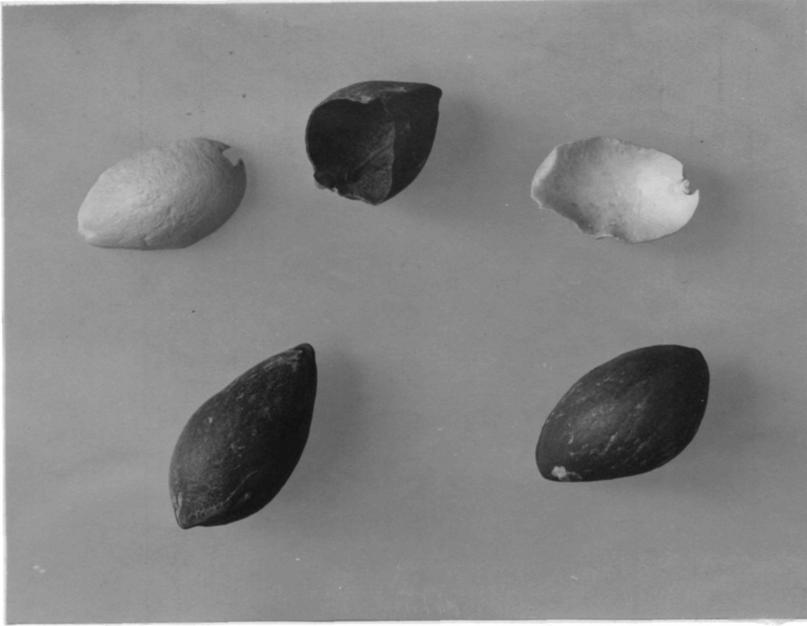
**ITALY**, Ventimiglia, La Mortola. Mr. Alwin Berger writes November 15 that he will send us the asparagus seed requested in January, when the many hundreds of thousands of packets, collected in the Botanic Garden, have been cleaned.

**JAVA**, Buitenzorg. The Secretary to the Direction of Agriculture writes November 15 that they will send directly from the Botanic Gardens, seeds of Bouea gandaria which is best propagated from seeds. Also some shoots of the Mandaloeng pineapple from the Tjiomas plantations.

**MAURITIUS**, Port Louis. Mr. Gabriel Regnard writes November 10 that he has taken the necessary steps to obtain Ancna grandiflora from the Government forests if indeed it still exists there. He is bearing in mind the Diospyros Tesselaria, the trees of which are in fruit now, and he will send seeds as soon as they are ripe, along with other species.

#### SPECIAL NOTE.

**Mr. C. V. Piper**, in charge of the forage crops investigations of this Department, is going to make an investigation for the War Department of the forage crop conditions in the Philippines. He left here on December 31, and sails from San Francisco on January 7. If he finishes his work as soon as he expects, he will leave Manila about June 1, under an authorization from this Office to make an investigation of the forage crops of British India. It is expected that he will make brief stops, on his way to Calcutta, at Hongkong, Canton, Singapore and possibly Java. Any of the offices of this Bureau and others desiring him to make special studies or to collect special material for them in any of the regions visited should inform this Office as promptly as possible in order that the most convenient memoranda and shipping material can be prepared and can reach Mr. Piper before he leaves Manila.



*CORDEAUXIA EDULIS*. YEHEB NUTS.

The Yeheb is a tree or shrub which has recently been discovered in Italian Somaliland, East Africa. Its seeds, called nuts, have a high food value, containing 21 per cent of cane sugar, 2 per cent of reducing sugars, 13 per cent of proteids, and 37 per cent of carbohydrates. They form an article of commerce and are brought to the coast by caravans and are eaten by the native Dolbahanta Somalis in preference to rice and dates. Though the climate of Somaliland is not well known, the indications are that where this plant grows, long periods of drouth occur, but rains are abundant and regular at certain seasons of the year. Winter temperatures do not probably go below freezing. The plant quickly forms a long tap root, bears when only 4 feet high, has evergreen leaves which if crushed, stain the fingers a magenta color, and grows into a large tree. From the investigations which have been made by the Kew Botanic Gardens the indications are that this plant is worthy of a thorough trial in the arid southwest, at first in the practically frostless areas, and a special effort is being made to get a large enough quantity of the seeds for an extensive experiment. Photograph of seeds received from Kew, December 2, 1910; S.P.I. No. 29122. (See Kew Bulletin 1908, p. 36-44; 141.)



CRATAEGUS PINNATIFIDA. CHINESE LARGE-FRUITED HAW.

Photograph of an orchard of the large-fruited haw, which is grown in extensive orchards near Tai an fu, Shantung, whence the largest and best haw fruit is shipped to all parts of China. These trees are all grafted on the wild *Crataegus pinnatifida*, are entirely thornless, and are carefully cultivated. The trees are slow in growth and withstand extreme drought, heat and cold. They are also remarkably ornamental, having large, glossy, dark-green leaves, which persist till late in the autumn, becoming gorgeously red and yellow. The trees are naturally rounded, are rarely more than 30 feet in height, and some varieties branch close to the ground as may be seen from the photograph. In fall they are loaded with bright red, firm fruits. The fruits of the best varieties are only slightly acid, and are as large as good-sized crab-apples. These are in such demand in China for preserves, jellies and sweetmeats, that the supply is less than the demand. Certain forms are also sliced and dried for winter use in compotes, etc. These facts undoubtedly will commend these trees for extensive trials in many sections of the United States, which no doubt will result in proving them to be of considerable value in the sections where they succeed. (Meyer's photograph, Tai an fu, Shantung, September 14, 1907.)