

NO. 22

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

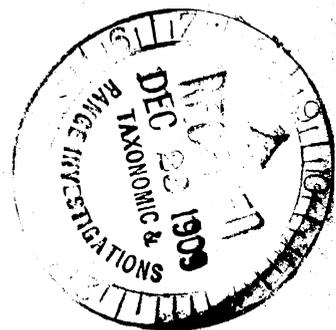
Oct. 2 to November 1, 1909.

NEW PLANT IMMIGRANTS.

ALEURITES TRISPERMA. 26050. Seed from Philippine Islands. Presented by Mr. Elmer D. Merrill, Bureau of Science, Manila. Received Oct. 2. "As there are probably no live specimens of this species in America to-day, these seeds were procured to grow plants for trial in the tropical possessions of the United States. This species, which yields a valuable drying oil, is found in the Philippines; it is so far as known restricted to these islands and is comparatively rare but quite generally distributed. It is much confused with the true lumbang (*A. moluccana*), especially when information in regard to it is sought. It belongs to the same section of Aleuriets as the Chinese and Japanese species. The seeds are somewhat larger, however, than those of the China wood oil tree, besides being thicker shelled and of a distinct brick red color". (Fischer.) Not available for distribution until later.

ANROPOGON SORGHUM. 26145-146. Two varieties of durra from Igatpuri, India. Presented by Mrs. Effie Pyle Fisher. Received August 31. No. 26145 is apparently very similar to No. 9856, Dagdi durra, which we are selecting for grain production and which now gives considerable promise of value for the southwest. 26146 is a white durra with black hulls, probably a late sort. For later distribution.

APIUM GRAVEOLENS. 26068. Presented by Mrs. E. M. Sheridan, 2300 G St., N. W., Washington, D. C. Received Oct. 5. Improved Paris Celeri-rave. "The taste of this is similar to the meat of the large artichoke and only requires boiling and a dressing of drawn butter gravy after it is cut in slices or small chunks." (Sheridan.) "A variety obtained by Mr. Falaise and distinguished from the common celeri-rave by a much greater development of the root. Foliage high with slender petioles, dark green, strongly



J. G. Farshill

tinted with red. The leaves themselves are large, of a dark and shining green, especially on the upper part of the stalk. It is the race most liked by the Parisian market gardeners." (Vilmorin-Andrieux & Co.)
For later distribution.

AVENA. 26036-044, 26107. Ten varieties of oats grown on the Department's Co-operative Grain Investigation Farms at Modesto and Davis, California. Received Sept. 27 and Oct. 6, 1909. These are carefully selected. Available for immediate distribution.

BETA VULGARIS. 26067. From Sicily. Presented by Dr. Carl Sprenger, Naples-Vomero, Italy. Received Oct. 5. "Seed collected in a wild state." For immediate distribution.

CICER ARIETINUM. 26193-194. Two varieties of chickpea from Mexico. Procured by Mr. David Griffiths. Received Nov. 5. One small and one large variety. For immediate distribution. Both as a vegetable and for the production of meal useful in making cakes the chickpea is worthy of the most serious consideration in our arid regions. In Palestine it is one of the most profitable crops according to Mr. Aaronsohn.

CITRULLUS VULGARIS. 26156-158. From Foochow, China. Presented by Mr. Samuel L. Gracey. Received Oct. 25.
26156. White or Shanghai melon; very popular in this district. 26157. Yellow. 26158. Red. For later distribution.

CITRUS. 26147. Orange from Mount Gravatt, Brisbane, Australia. Presented by Mr. John Williams. Received Oct. 28. Usher's Favorite. It ripens in October here and is a splendid keeper. Quality, flavor and all things considered, I believe it to be really first class. (Williams.) For distribution later.

CRATAEGUS AZAROLUS. 26116. From Zichron Jacob, near Haifa, Palestine. Presented by Miss Rifka Aaronsohn. Received Oct. 4. "Arabian name za'arur. This species is very abundant throughout the Orient, where a great many varieties and forms of it are found. It grows wild on the slopes of dry, arid hills, preferably amongst calcareous rocks. It is a shrub with spiny branches from 1.5 to 4 or 5 meters

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in height, with a diameter of from 10 to 30 centimeters. It is rather a slow grower. In the spring it bears dense corymbs of white flowers which are pleasantly fragrant. The size of the fruits varies in different varieties. Some have fruits as large as an inch in diameter. The acid flesh has a delicate flavor, but there is not enough of it to give the fruits a commercial value. Fruits are occasionally found, however, that are practically without seeds and it might be possible to fix this character by selection. As it is, the fruit is often sold in the Oriental markets. I particularly recommend this *Crataegus* as a stock for pears. It is good for dry localities at any altitude. It is found as low as 200 meters below the level of the Mediterranean in the Valley of the Jordan and as high as 1800 meters above sea-level in the desert near Petra. It ought, therefore, to thrive in southern California as well as on the plateaus of Colorado. My personal experience has shown that a top graft 6 inches or a foot above the ground is the best for this stock. It is best suited for the early varieties of pears. I recommend this as a stock, therefore, in high, arid situations where water is scarce or costly. It is an ideal stock for dwarf early pears. At Indio, California, for instance, it ought to yield prime fruit with very little irrigation. I speak of pears because I have had personal experience with this fruit. But I can see no reason why it would not do as well as a stock for dwarf early apples." (A. Aaronsohn.) For distribution later.

DANTHONIA SEMI-ANNULARIS. 26119. From Wellington, New Zealand. Presented by Mr. T. W. Kirk, Department of Agriculture. Received October 18. Wallaby grass. A grass which does well on any of the poorer classes of gum land, also on heavy clay soils. It stands drought with impunity and as it throws up a good quantity of feed is eaten by all classes of stock. For immediate distribution.

DIOSPYROS DISCOLOR. 26112. Persimmon from Philippine Islands. Presented by Mr. Wm. S. Lyon, Manila. Received Oct. 11.

"A small tree, native of the Philippine Islands, introduced into India and cultivated in gardens. The fruit is like a large quince and in some places is called mangosteen; its proper name should be the Mabola fruit. It is agreeable and has a pink colored, fleshy rind." (Lyon.) For distribution later.

FEIJOA SELLOWIANA. 26120-121. Two varieties from Los Angeles, California. Presented by Mr. H. Hehre. "Feijoa sellowiana is worthy to be mentioned under promising new fruits and deserves the widest distribution. The plant stands more cold than the guava, is beautiful in bloom, evergreen, and otherwise hardy. The fruit is green and when ripe gets a tinge of yellow. As it blooms for a period of about two months the fruit ripens successively for 2 months. Therefore there are all sizes of fruit on the plant at the same time, which grow at the axil of the leaf on the wood." (Hehre.) For distribution later. Its flavor is decidedly aromatic and is said to be keenly relished by many people.

GARCINIA MANGOSTANA. 26047. Seeds from Port of Spain, Trinidad. Presented by Mr. F. Evans. Mangosteen. This delicious fruit is about the size of a mandarin orange, round and slightly flattened at each end with a smooth, thick rind, rich red-purple in color, with here and there a bright, hardened drop of the yellow juice which marks some injury to the rind when it was young. As these mangosteens are sold in the Dutch East Indies :- heaped up on fruit baskets or made up into long, regular bunches with thin strips of braided bamboo, they are as strikingly handsome as anything of the kind could well be, but it is only when the fruit is opened that its real beauty is seen. The rind is thick and tough and in order to get at the pulp inside it requires a circular cut with a sharp knife to lift the top half off like a cap, exposing the white segments, five, six or seven in number lying loose in the cup. The cut surface of the rind is of a most delicate pink color and is studded with small, yellow points formed by the drops of exuding juice. As you lift out of this cup, one by one the delicate segments which are the size and shape of those of a mandarin

orange, the light pink sides of the cup and the veins of white and yellow embedded in it are visible. The separate segments are between snow white and ivory in color and are covered with a delicate network of fibers and the side of each segment where it presses against its neighbor is translucent and slightly tinged with pale green. As one poises the dainty bit of snowy fruit on his fork and looks at the empty pink cup from which it has been taken, he hardly knows whether the delicate flavor or the beautiful coloring of the fruit pleases him the more, and he invariably stops to admire the rapidly deepening color of the cut rind as it changes on exposure to the air from light pink to deep brown. The texture of the mangosteen pulp much resembles that of a well ripened plum, only it is so delicate that it melts in your mouth like a bit of ice cream. The flavor is quite indescribably delicious and resembles nothing you know of and yet reminds you, with a long after taste, of all sorts of creams and ices. There is nothing to mar the perfection of this fruit unless it be that the juice from the rind makes an indelible stain on a white napkin. Even the seeds are partly or wholly lacking and when present are so thin and small that they are really no trouble to get rid of. Where cheap and abundant as in Java one eats these fruits by the half peck and is never tired of them; they produce no feeling of satiety as the banana and mango do, for there is little substance to the delicate pulp. It promises to be a good shipper as fruits retain their flavor for 26 days from the time of picking. (Fairchild.)
For distribution later.

GLADIOLUS SP. 26142. From Pretoria, Transvaal. South Africa. Presented by Mr. F. T. Nicholson. Received Oct. 25.
For distribution later.

GLYCINE HISPIDA. 26051-054. Four varieties of soybeans from Nanking, China. Presented by Dr. F. B. Whitmore. Received September 13. For distribution later.

GOSSYPIUM. 26136. From Nyasaland Protectorate, British Central Africa. Presented by Mr. J. Stewart McCall. Received Oct. 23. Seed of Egyptian cotton. "Our Egyptian is not nearly so good as our Upland." (McCall.) For immediate distribution.

HORDEUM. 26030-035, 26103-106. Ten varieties of barley grown on the Department's Co-operative Grain Investigation Farms at Modesto and Davis, California. Received Sept. 27 and Oct. 6, 1909. These are carefully selected. For immediate distribution.

MACROLAENA STIPOIDES. 26118. From Wellington, New Zealand. Presented by Mr. T. W. Kirk, Department of Agriculture. Received Oct. 18. New Zealand rice grass. A native grass much relished by all kinds of stock; the herbage is of a rich green color and is produced in great abundance. For immediate distribution.

MEDICAGO SATIVA. 26130. From Talas, Ceasarea, Turkey. Presented by Dr. Wm. S. Dodd, through Mr. Chas. J. Brand. Received Oct. 19. "In his letter transmitting this seed Dr. Dodd states: 'I am not sure whether the lucerne for which you ask is the plant that we cultivate here for horse feed or not, but I send some of that. Yonja is the Turkish name.' Only a small package of this seed was received and it should be reserved for experiments in the Southwest." (Brand.) For distribution later.

MEDICAGO SATIVA. 26161. Alfalfa from different oases in the region of Ourlana and Toucourt, Algeria. Purchased from Colombo Pere, Biskra, Algeria at the request of Mr. W. T. Swingle. Received October 29. For immediate distribution.

MEDICAGO SATIVA. 26181. Safsafa or Susfa alfalfa. From Tripoli-in-Barbary, North Africa. Received Oct. 28 and Nov. 1. Sometimes they get 8 crops of this in the 8 months of the year it grows. I have seen at least five, and I think six crops harvested from fields just back of my house. They irrigate about every four days. (Coffin.) For distribution later.

MUSA TEXTILIS. 26062-26065. From Davao, Mindanao, Philippine Islands. Presented by Mr. M. M. Saleeby, in charge of fiber plants, Manila. Received Oct. 4. Four varieties of Manila hemp. "Mr. Saleeby who is making a careful study of abaca (Manila hemp) writes that, although seedlings are

often found in fields in well shaded moist places, he has never found good plants growing directly from the seeds. He suggests trying to grow plants from root cuttings or suckers from the seedlings that we may secure. He also states that he finds seedlings only in soil well drained yet constantly moist and constantly shaded. I would suggest that these seeds be grown with a view to sending the young plants to Porto Rico. (Dewey.) For distribution later.

PENNISETUM AMERICANUM. 26180. From Tripoli-in-Barbary, North Africa. Presented by Mr. Wm. Coffin. Received Oct. 28. and Nov. 1. "The Arabs think very highly of this grain as a food and use the grass as fodder for their stock." (Coffin.) For immediate distribution.

PHYSALIS. 26195. From Mexico. Procured by Mr. David Griffiths. Received Nov. 5. "This big blue husk tomato is often four centimeters in diameter, as found upon the markets of Oaxaca and Mexico City especially." (Griffiths.) For distribution later.

PRUNUS ARMENIACA. 26048. PRUNUS DOMESTICA. 26049. From the Himalayas. Presented by Mr. E. Shearer, Assistant Inspector General of Agriculture in India. Received Oct. 2.
 26048. Seed of "Shari" apricot. A nursery of Shari plants is prepared in January each year. The soil is first dug properly, cleaned and manured; ditches are then made about four inches deep and the seeds are put in and covered with earth. These seeds germinate in the following March. The plants are then transplanted where desired in January next: i.e. after one year. They are planted into pits dug deep enough and are watered every second or third day until they take root. Shari plants when grafted on Aru (peach) give a better variety of Shari fruit." (Shearer.)
 26049. "Aloocha" plum. The season and process of sowing this seed is the same as that of Shari apricot (26048). Jamun (wild cherry), and Aru (peach) when grafted on Aloocha plants produce fine varieties of Jamun and Aru." (Shearer.) For distribution later.

RIBES SPP. 26138-140. Three varieties from Little Siler, New Jersey. Presented by Dr. W. Van Fleet. Received Oct. 22. "These hybrids are final selections from hundreds of seedlings representing 12 years of arduous work. Under the circumstances they must be considered precious." (Van Fleet.) For distribution later.

RUBUS SPP. 26197-198. From Enfield, England. Purchased from Messrs. Stuart, Low and Co. at the request of Mr. Walter T. Swingle. Received Nov. 4. 26197. Lowberry. This is said to be as large as the Loganberry and to be as strong a grower and to be altogether the most valuable novelty in the fruit way produced for some years." (Swingle.) 26198. Low's Phenomenal. A raspberry-Loganberry hybrid, possessing all the flavor of the raspberry and combining the free fruiting qualities of this now famous berry." (Swingle.) For distribution later.

SACCHARUM OFFICINARUM. 26055-061. Sugar cane seed presented by Mr. Edward W. Knox, General Manager Colonial Sugar Refining Co., Sydney, N.S.W. Received Oct. 4. 26055. Striped Singapore. Standard variety, medium thickness, medium quality, very similar to Rose Bamboo but striped amber and red. 26056. Rose Bamboe. Standard variety, medium tonnage and sweetness, medium thickness, straw rose color. These are at present most grown in the drier districts of Fiji, being of fair weight and sweetness. The obvious difference between Rose Bamboo and Yellow Singapore is that the latter is somewhat thicker in the stalk and arrows very freely while the former rarely flowers. 26057. Badila. Best variety in Fiji and Queensland, very heavy and very sweet; thick, purple. 26058. Mohona. Early maturing, successful variety in New South Wales, but dies off early in the season in tropical Queensland and Fiji; rather thin, purple; white bloom. The two latter varieties came from New Guinea. No. 26057 is a dark purple cane of stout build giving heavy and sweet crops under favorable conditions but being a slow grower at the start. Mohona is of a lighter purple color, of medium size and yield, attaining high sweetness when comparatively young, readily going back in quality

in the tropics, but much more enduring in semi-tropical districts. It supplies very fertile seeds. 26059 and 26060 are seedlings raised at Hambleton, Queensland from Mohona seed, are both sweet and have given fair crops when tried, so far on small areas only; both are rather thin. 26061. Couve 87. This is a thick, purple, Mauritius seedling giving a heavy crop, which is somewhat discounted by shortcomings as regards quality. Seed from this variety is more fertile than that from any other known to us." (Knox.) For distribution later.

SACCHARUM OFFICINARUM. 26196. Sugar cane from Honolulu. Presented by Mr. Harold L. Lyon, Experiment Station of the Hawaiian Sugar Planters' Association. Received Nov. 2. Lahina. "This cane has proved itself to be the best money maker that Hawaii ever saw. Under irrigation it is a splendid cane if conditions are suitable. Unfortunately it is a cane that is very subject to disease. In those parts of Hawaii where it can be used, namely those parts where the sky is nearly cloudless the year around and the rainfall very slight, it still does better than any other cane. If any attempt to introduce this cane to other places from Hawaii is made, great care should be exercised to secure cuttings free from disease." (N. A. Cobb.) For distribution later.

SECALE. 26045-046. 26100-102. Five varieties of rye grown on the Department's Co-operative grain investigation farms at Modesto and Davis, California. Received Sept. 27 and Oct. 6, 1909. For immediate distribution.

SOLANUM. 26122. From Castle Kennedy, Scotland. Presented by Rev. J. Aikman Paton, Souleseat. Received Oct. 19. "Tubers of *Solanum etuberosum* (so-called; I think it is a wild hybrid of *S. tuberosum* simply) which I used as the parent of my 'Immune' strain. A certain proportion of 'selfed' seedlings of it and its hybrids are immune to *Phytophthora infestans* even here." (Paton.) For distribution later.

SOLANUM TUBEROSUM. 26126-129. Four varieties of potato from Bogota, Colombia. Presented by Mr. Eugene Betts. Received Oct. 18. All from high altitudes. For distribution later.

TRIFOLIUM SUAVEOLENS. 26135. From Tashkent, Turkestan. Purchased from Dr. Richard Schroder, Director Chief Agricultural Experiment Station, at the suggestion of Prof. N. E. Hansen. Received Oct. 23. "In Persia the schabdar seed usually is sown in the fall, not too late. It endures the winter quite well. By sowing in the fall it develops in the spring so quickly that the first cutting is ready before the first cutting of alfalfa. According to information obtained in Persia the schabdar endures several years. This lot is of a new variety which endures from five to seven years. The fact that this plant is perennial conflicts with botanical statements that it is an annual. In Persia the fresh shoots of the schabdar are also used for salad. The flowers are visited by bees." (Schroder.) For immediate distribution.

TRITICUM. 25968-26029, 26079-097. Eighty-one varieties of wheat grown on the Department's Co-operative Grain Investigation Farms at Modesto and Davis, California. Received September 27 and Oct. 6, 1909. In addition to these numbers there are *Triticum spelta* (spelt), No. 26098, and TRITICUM DICOCCUM (Emmer), No. 26099. These are all carefully selected grains. For immediate distribution.

ZIZYPHUS SATIVA. 26109. Chinese dates from Chekiang province, China. Presented by Mr. J. H. Judson, Hangchow, China. "I cannot say whether these plants are of a named variety or not. The Chinese have three kinds in the market which they call red, black and honey dates." (Judson.) For distribution later.

NOTES FROM OUR AGRICULTURAL EXPLORER, MR. MEYER.

Mr. Meyer, who has started on an exploring tour through Central Asia, but who was directed to visit the French nurseries to study crown gall on paradise stocks, writes from Angers, France, regarding several interesting things he has found while making the investigation. In the Arboretum of Mr. Philippe L. de Vilmorin at Verrieres le Buisson there is a single specimen of a fastigiata mulberry (*Morus alba* var. *fastigiata*) which is quite rare and may be of value in our southern states as a pyramidal tree. Here also is *Pinus armandii*, a new, rather dwarfed pine from Western

China, a seedling of *Berberis stenophylla* which is a hybrid between *B. darwinii* and *B. empetrifolia*. This plant illustrates the fact that even if the immediate result of a hybridization is not what is wanted the seedlings of such a plant may be. The evergreen *Lonicera pileata* seen in Veitch's nurseries at Comby Wood, Surrey, England, is a good plant for rockeries and at the ends of beds of shrubbery. It is of caespitose habit like the *Cotoneaster horizontalis*. In the Arboretum of Mr. Maurice L. de Vilmorin, Les Barres, Nogent sur Vernisson, is found the new *Berberis dictyophylla*, which has white, glaucous branches and leaves. *Clematis* sp. 4927 has very nice rose-colored flowers. *Clematis* sp. 4732 has white flowers and finely pinnate leaves; both plants are new and valuable from a horticultural point of view. *Photinia variabilis* (No. 4345) is an attractive shrub from Western China; it bears dark green, glossy foliage and has small, red berries. It may serve as a good stock for loquats, being so closely related to them. A new *Prunus*, No. 6613, from Western China, is remarkable for its exceedingly fast and healthy growth and it may serve also as a stock for plums and cherries in the U.S. Mr. Vilmorin has a few young plants of this available in case we can make use of them. His collection of roses is perhaps the richest in the world. *Rosa kamshatica* looks like *R. rugosa*, and as it is even hardier than that species, it can be used in breeding experiments. Two or three varieties of *Rosa sericea* from Western China may also be used to create new strains of hardy roses. In Mr. G. Allard's Arboretum near Angers I noted among other things *Crataegus tenacetifolia*, which has a flavor all of its own and could well be cultivated for its fruits which could be made into preserves. He also has a large plant of the very rare *Hedera aurantiaca* from the Himalayas bearing golden berries.

RECENT VISITORS.

CELON. Dr. J. C. Willis, Director Peradeniya Botanical Garden, Kandy, Ceylon. On his way around the world gave an address in the Office of the Chief of the Bureau, giving an account of the development of the remarkable rubber industry of Ceylon and the success which has attended the

establishment of 300 school gardens among the native children of the Island, by means of which school gardens new vegetables have been introduced. He called attention to the interesting sunken gardens in the extremely dry, wind-swept region of northern Ceylon, probably of Arabic origin, by means of which the natives were able to cultivate vegetables throughout the summer.

BRAZIL. Joao Luederitz, Engenheiro Chefe do Instituto Technico, Porto Alegre, Brazil. Is interested in the organization of an agricultural college for the province of Rio Grande do Sul; in search of trained agriculturists for the school. Agrees to investigate the question of the stocks used in Bahia for grafting the Bahia navel orange.

GERMANY. Walter Busse, in charge of all the Tropical Experiment Stations of the German Colonies. He had just returned from a trip through Turkestan and is much interested in the possibilities of cigarette tobacco cultivation in those colonies. He will be glad to secure for us seeds of any desirable plants growing in the various German colonies.

JAPAN. T. Watase, President of the Tokyo Plant, Seed and Implement Co. Mr. Watase is one of the party of Japanese Commissioners which has been touring the country and has been commissioned by the Mayor of Tokyo to arrange for the shipment from Japan to Seattle of the 2000 Japanese flowering cherries which have been presented by the Mayor of Tokyo to Mrs. Taft.

JAPAN. Prof. T. Minami of the Hokkaido Agricultural College. He is much interested in the varieties of corn used in this country for the production of corn starch.

TRANSVAAL, Johannesburg. Sir Percy Fitz Patrick. Is interested in any forage plants, particularly grasses, likely to prove successful when introduced on the veldt of South Africa.