



No. 18.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

June 11 to July 3, 1909.

NEW PLANT IMMIGRANTS.

ANDROPOGON SORGHUM. 25328-344. A collection of 17 varieties of sorghum from Sansane-Mangu district in the northern part of Togo, German West Africa. Presented by Dr. Meyer, Governor of Togo. Received April 7.

BARBEYA OLEOIDES. 25632, From Eritrea, Africa. Presented by Prof. T. Batorate. Received June 1. Seeds of a small tree native of the middle and higher mountainous regions of the northern part of Abyssinia and the province of Yemen in Arabia. For propagation; plants available later. (Urticeae.)

BELOU MARMELOS. 25535-536. Two varieties of Bael fruits from India. Presented by Mr. A. Howard, Imperial Dept. of Agriculture, Pusa, Bengal. Received April 30. For general descriptive notes of bael fruit see nos. 22957 and 24450. For propagation; plants available later.

BOMBAX SP. 25530. From Paraguay, South America. Presented by Mr. Thos. Ruffin Gwynn. Received May 19. "Vegetable silk (Paina) used here for pillows and mattresses, and some fine hammocks and shawls have been woven out of it. The plant opens its pod in July and August here, representing Oct. and Nov. with us. (Gwynn.)

BUCHANANIA LATIFOLIA. (Anacardiaceae.) 25527. From Kavali, Nellore District, India. Presented by Rev. E. Bullard. Received May 17. "This is called in the Lelugu language 'Sara' tree. The inside kernels are eaten as we eat nuts. The outside part of the fruit is also eaten. The tree grows about as high as a small orange tree." (Bullard.)

CARICA. 25692. From Gonda, United Provinces, India. Presented by Rev. N. L. Rockey. Received June 28. "Papita or papaya seed grown in lat. 27° 7' N., long. 81° 51' E. Fruits weigh about 4 lbs. each; tree 16 months

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old. I have had trees to live and bear for 6 years and continue to grow freely. I see no reason why this luscious fruit should not grow and thrive all along the Gulf and in the Islands." (Rockey.) For propagation; plants available later.

CARISSA EDULIS. 25638. From Eritrea, Africa. Presented by Prof. T. Batorate. Received June 1. "A tall shrub found throughout tropical Africa from Guinea and Nubia south to Damaraland and the Valley of the Zambesi; also in tropical Arabia." It is a relative of the edible fruited species used as a hedge plant in South Africa.

CARLUDOVICA SP. 25534. From Ancon, Canal Zone. Presented by Mr. H. F. Schultz. Received May 27. *Carludovica palmata* is the Panama hat plant.

CUCUMIS MELO DUDAIM. 25618. From Limavida, Chile, thru Jose D. Husbands, June 8. "Fragrant melon, color yellow with red stripes, eatable. Is about the size of an orange. Plant like other melons, but smaller. Crossed with other melons might give something new." (Husbands.)

CYDONIA SP. 25625. A quince, the seed of which was received from Shantung, China. For distribution from Mississippi Valley Plant Introduction Garden, Ames, Iowa.

DIOSPYROS SENEGALENSIS. 25634. From Eritrea, Africa. Presented by Prof. T. Batorate. Received June 1. "A shrub or tree 6 to 40 feet high, native of Guinea and Abyssinia and south to Mozambique in Africa, and Yemen in Arabia. The wood, which is much used by the natives, is white and compact, or black in the center like ebony." For propagation; plants available later.

ELEOCHARIS TUBEROSA. 25641. From China. Procured by Mr. G. P. Rixford from a Chinese importer. Received June 16. "The corms or tuberous rhizomes of the above plant are a great favorite with the Chinese. They are mostly eaten raw, but are also sliced and shredded in soups and

in meat and fish dishes. Foreigners in China grate them and serve them boiled as a winter vegetable, in which state they resemble sweet corn very much in looks and taste. The plants need a hot summer to mature and are grown on muck or clayey soil with several inches of standing water on top, very much in the same manner as wet land rice." (F. N. Meyer.)

GEVUINA AVELLANA. 25611. From Chile. Received thru Mr. Jose D. Husbands, June 8. An evergreen tree native of the Andes of Chile. Will not grow north of lat. 34°. For propagation; plants available later.

GLYCINE HISPIDA. 25649-658. From Newchang, China. Presented by Mr. Fred D. Fischer. Received June 18. Ten varieties of soybeans obtained for experiments by the Office of the Agrostologist; some still available for distribution.

LECYTHIS USITATA(?) 25435. From Port of Spain, Trinidad, B.W.I. Presented by Dr. E. Andre. Received May 1. This is the species which produces the well-known Sapucayo nuts of commerce; it abounds in the Island of Caripe and other parts of the province of Para. For propagation; plants available later.

MALUS SP. 25626. Seed originally from Shantung, China.

MALUS SP. 25627. Originally from Peking, China. **MALUS SP.**

25628. From Pao Ting Fu, China. **MALUS SYLVESTRIS.** 25629.

Evaline. This variety originated in Wisconsin. On account of the uniformity of the fruit in size, appearance and quality and because of the hardiness of the variety in

tree and fruit-bud, it appears worthy of more extended trial in Central and Northern Iowa as an early winter or midwinter apple for the home orchard. On the college grounds the variety has made a record for hardiness of fruit bud, having yielded pretty good crops during the season of 1907-08 when many other varieties yielded little or no fruit because their blossom-buds or blossoms were killed by the late freezes." (S.A. Beach.)

MALUS DIVERSIFOLIA. 25630. Crab-apple native to Alaska. For distribution by Upper Mississippi Plant Introduction Garden, Ames, Iowa.

MANGIFERA INDICA. 25659. From province of Baliwag, Philippine Islands. Presented by Mr. Donald MacIntyre. Received June 19. Caraboa. The fruit of this is a little smaller than the one from Cavite. (No. 24927.) For propagation; plants available later.

MANIHOT DICHOTOMA. 25507. From Bahia, Brazil. Presented by Mr. Stevenson, Agent of the Royal Mail Co. Received May 25. "A tree native of the mountainous regions between the Rio Paraguassu and the Rio de Contas in the eastern part of the province of Bahia, in Brazil. The tree composes about half of the forests on many of the slopes of the mountains in its native region and furnishes about four to five hundred tons of rubber each year. The plant has only been known since 1901 and the cultivated plantations are just ready to be tapped for the first time." For propagation; plants available later.

MILLETTIA FERRUGINEA. 25635. From Eritrea, Africa. Presented by Prof. T. Batorate. Received June 1. A large tree found in Abyssinia. The powdered seeds are thrown into the water to stupefy fish, and the tree also furnishes a poison for arrows. For propagation; plants available later. (Leguminosae.)

Pennisetum Americanum. 25343-344. Two varieties of Pearl millet from Sansane-Mangu district, northern part of Togo, German West Africa.

Persea gratissima. 25614-617. From Limavida, Chile, thru Jose D. Husbands, June 8. "Paltos, Chile, classes of avocados of excellent quality, somewhat smaller than those of Peru. For propagation; plants available later.

Phaseolus lunatus. From Rio Mucury, Brazil. This is an additional quantity of No. 23916, imported because there was not enough of the first importation to supply experimenters.

Philadelphus sp. 25693. From Guadalajara, Jalisco, Mexico. Purchased from Senor Severo Hernandez. Received June 28. "A climbing variety of mock orange with very large, semi-double flowers of deep golden yellow color and so fragrant that a single flower will perfume a room of ordinary size. Called in Mexico Jazmin Mozqueto" (Chisolm.) For propagation; plants available later.

Phragmites vulgaris. 25613. From Limavida, Chile. Received thru Mr. Jose D. Husbands, June 8. "A tall, wide-leafed, reed-like wild grass used for thatching houses. Eaten by horned cattle. Ornamental.

Pithecolobium dulce. 25694. Seed from Guadalajara, Jalisco, Mexico. Purchased from Senor Severo Hernandez. Received June 28. "A thorny leguminous tree known in Mexico as Guamuchitl or Huamuchil; the sweetish pulp of the pods universally eaten by the natives, while the bark of the tree is used in tanning leather. Has succeeded at Miami, Florida. (Chisolm.)

Pritchardia pacifica. 25533. From Ancon, Canal Zone, Panama. Presented by H.F. Schultz. Received May 27. "A small tree native of the Fiji and Samoan Islands." For propagation; plants available later.

RAPHIONACME UTILIS. (Asclepiadeae.) 25547. Bulbs of Hoanda rubber from Ochileso, Africa. Presented by Mr. T. W. Woodside, Benguella, Angola. "A rubber producing member of the milkweed family recently described as a new species. The plant may be described as a perennial herb or very low shrub. There is a large, fleshy, flattened, turnip-shaped perennial root said to attain a diameter of 5 to 6 inches, tho the present supply does not contain roots larger than 4 inches. The other parts of the plant are annual except for a short stem or crown which produces a succession of short branches but apparently only one at a time. The structure and habits of growth indicate that the plant behaves in nature as an extreme desert type able to survive with very little water and requiring several years to reach maturity. It is necessary to ascertain whether the plant can be grown in the U.S. either from seeds or from cuttings." (O.F. Cook.) For propagation; plants available later.

SECALE CEREALE. 25665. From the province of Ekaterinoslav, Russia. Presented by Mr. J. A. Rosen. Received March 23, Petkoff Winter. "This rye is frequently sown in the early part of July and cut for soiling porposes in September (may also be pastured but this is not advisable), and produces a crop of grain the following season. If raised for the grain only it is sown late in September; in this case it usually yields heavier." (Rosen.)

SORBUS SP. 25624. Mountain ash native to Alaska. Received from Alaska Experiment Station, Sitka. For distribution from Mississippi Valley Plant Introduction Garden, Ames, Iowa.

PYRUS SPP. 25622-623. Two specis of pears from China. 25622 came from the mountainous regions. 25623 is far from being an AI pear, but is large and keeps well into the spring. These are on hand for distribution at the Mississippi Valley Plant Introduction Garden, Ames, Iowa.

The following are a collection of seeds from Abyssinia presented by Mr. Hubert S. Smiley regarding which very meager information is at hand. Received June 14.

ANDROPOGON SORGHUM. 25675-677.

BRASSICA SP. 25682.

HORDEUM SP. 25671-72. HORDEUM VULGARE. 25673-74.

PHASEOLUS VULGARIS. 25683.

PISUM. 25680.

SESAMUM ORIENTALE. 25681.

TRITICUM DURUM. 25666-670.

VICIA FABA. 25678-79.

NOTES FROM FOREIGN CORRESPONDENTS.

BRAZIL, Th.-Ottoni. Fred Birch, May 13. Is sending trailing beans--an extremely prolific climbing bean. Describes a fruit growing there called the Coupao. The fruit is a bread-like substance tasting like a mixture of nut butter and sweet bananas. It is a gigantic forest tree about 160 feet high and 6 feet in diameter.

BURMA, King-Tung. Mrs. Robert Harper, April 26. In about a month will send mango and custard apple seeds and seeds of the Mak man yau, a plant which yields an oil used for giving light in houses. Lacquer is obtained from a tree called "My-hak." It is obtained about as maple sugar is in America. The lacquer is dark in color, resembling tar; it hardens so rapidly that it has to be kept under water.

CEYLON, Peradeniya. Curator Royal Botanic Garden, June 1. Sends Terminalia belerica.

CHILE, Limavida. Jose D. Husbands, May 23. Says there is a plant grown in the desert of Atacama called Algarobillo (Balsamocarbon brevifolium) which has 40 per cent of tannin in the entire tree--bark, wood and leaves. Will send seeds. Describes 4 kinds of wild blackberries growing there: No. 1. Grows about 15 feet high. Very rank growth--so much so that it is used for fences. Sometimes

overruns whole fields and cannot be eradicated. Fruit blackish wine color, sweet and of good flavor. Has a superabundance of seeds. Grows in bunches 3 to 4½ inches long, hanging down. Flowers pale purple. No. 2. About the same, but not quite such rank growth. Fruit about same. Pure white flowers. No. 3. From Valdivia. Fruit has less seeds and more flesh than the others. Is larger and the shape of a beehive. The bunches stand upright. The bush grows in the form of a beehive, 5 feet high by about 5 feet in diameter. Fruit sweet and of excellent flavor. Hardy, prolific. No. 4. Bush about 5 or 6 feet high. Fruit shape of a thimble. Sweet and of good flavor. Color black.

CHILE, Limavida. Jose D. Husbands, May 24. Sends an extensive report on quilla--its method of growth, location, uses, etc. Says it is a natural fodder plant of the highest value--better than any cultivated grass including alfalfa. Says it thrives anywhere in moist or semi-moist lands where the temperature reaches zero, but not below.

CHINA, Amoy. Julian H. Arnold, American Consul. June 7. Will send pomelo cuttings in the proper season.

CHINA, Hankow. Sidney G. Adams, May 27. Sends a report in regard to the raising of hemp. Will send seeds later.

COCHIN CHINA, Saigon. Jacob E. Conner, May 13. About July 1 will ship a Wardian case containing plants of a species of *Garcinia* which grows in the norther part of Cochin China.

ENGLAND, Cambridge. Augustine Henry, June 6. Suggests that we plant an acre of *Eucommia ulmoides* from the Yangtze Valley. Says the bark contains gutta percha and might yield it in large quantities if treated as coppice. Says it grows well much farther north than any rubber tree and that it should be investigated thoroughly.

INDIA, Baroda. B.S. Cavanagh, June 3. Is sending seed of *Terminalia belerica* and *Phyllanthus emblica*.

INDIA, Gonda, United Provinces. Is sending seed of Papaya. Says this is an excellent fruit and almost constant in its production. It will stand as much frost as an orange tree. It prefers a fairly moist soil. Says those from Bangalore are the best and he will send seed of them later.

INDIA, Poona, Bombay Presidency. Will send specimens and seeds of a grass used there for thatching roofs. Its vernacular name is Surad. Botanical name *Andropogon Schoenanthus*.

PHILIPPINE ISLANDS, Manila. Wm. S. Lyon, May 20. Can send *Diospyros discolor* in October or November. Will send *Caesalpinia nagua* in about a month.

SPAIN, Valencia. Chas. Winans, May 14. Sends a report regarding the cultivation, production and uses of chufa (*Cyperus esculentis*), so much employed for the manufacture of ices or 'Horchatas' all over Spain.

TURKEY, Erzurum. Robert Stapleton, May 25. Thinks that *Medicago papillosa* is abundant there. Will watch for it and send in season.

RECENT VISITORS.

CHILE. Mr. Andrew Kerr, American Consular Agent, Coquimbo, Chile and Frederico Eggers, Osorno, Chile. Mr. Eggers lives in the southern part of Valdivia. He thinks that the quila (*Chusquea quila*) is hardly worth cultivating. They use it as a cover for their cattle in winter and the animals fatten on it remarkably just as they do in our canebrakes. 10,000 animals starved to death in South Chile because this bamboo seeded everywhere and then died. These men will be in America for some time and are interested in many practical problems of agriculture.

CHINA, Shanghai. Mr. D. McGregor. He is in charge of parks and open spaces in Shanghai and is familiar with the problems of Chinese ornamental plants.

ISLE OF PINES. Dr. Ramsdel. Has 12 living mangosteen trees, 2 feet high with 4 to 6 branches. They are planted in a swampy hollow. These plants were sent to him in 1905-06. Has 2 plants of *Garcinia morella* which are ten feet high and growing finely. Thinks this *morella* will be as easy to grow as the mango and much easier than the mangosteen.

ISLE OF PINES. J.L. Percy. A special experimenter with tropical fruits.