

THE UNIVERSITY OF CHICAGO

CHICAGO

CHICAGO, ILLINOIS

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Plants recently introduced, not yet available for distribution.

AGAVE sp. (Amaryllidaceae), 60225. From Algiers, Algeria. Presented by Dr. L. Trabut, through Prof. L. H. Dewey, Botanist in Charge of Fiber Investigations, who says:

"These are seeds of an Agave hybrid sent to me by Doctor Trabut. They are the result of a cross made by him about 1908, in which the staminate parent was the sisal, *Agave sisalina*, and the pistillate parent an undetermined species which he had received from San Luis Potosi, Mexico. The object in making the cross was to obtain a plant more resistant to cold than sisal, yet having thin straight leaves producing fiber similar to that of the last named species. Some of the seedlings resulting from this cross have been developed further by selection, but up to the present, none of them has attained commercial importance in Algeria.

"The Department will test this hybrid on the Island of Porto Rico, where its value, in comparison with that of other producing agaves, will be ascertained."

CROTALARIA spp. (Fabaceae), 60301 to 60303. From Salisbury, Rhodesia, Africa. Seeds presented by H. G. Mundy, chief agriculturist, Department of Agriculture.

Knowing the desire of this Department to test leguminous plants valuable as green manures and cover crops, Mr. Mundy has sent in three Crotalarias which seem likely to prove of interest. This genus contains about 300 species, distributed throughout the Tropics of both hemispheres; only a small proportion of them have yet been tested as cover crops in the United States. In the Asiatic Tropics, and in Africa, various species are being used successfully for this purpose.

60301. CROTALARIA INTERMEDIA. "Plant 2 to 3 feet high, branching less than 6 inches above ground; leaflets long and narrow. Flowers creamy yellow with purple veins. Matures in four months." (Mundy).

60302. CROTALARIA MAXILLARIS. "Plants 1 1/2 to 2 1/2 feet high; branching along entire main stem; leaflets broad. Flowers bright yellow. Matures in four months." (Mundy).

60303. CROTALARIA SPHAEROCARPA. "Plant 1 to 1 1/2 feet high, of bushy habit. Flowers yellow. Matures in 3 1/2 months." (Mundy).

ESENBECKIA LEIOCARPA (Rutaceae), 60201. From Brazil. Presented by F. L. Rhodes, American Telephone and Telegraph Co., New York, N. Y.

Our attention was first directed to this species by Mr. Rhodes, who received from southern Brazil, a shipment of seeds together with information to the effect that the tree might prove particularly suitable for telephone poles, because of its usually branchless, straight trunk. On being informed that we had not tested the species in this country, he generously divided the seeds with us.

Esenbeckia leiocarpa, related to the citrus fruits, is described as an erect, medium-sized tree from the forests of southeastern Brazil, where the clear yellow

wood is used for railway ties and for general construction purposes. It seems likely to prove sufficiently hardy for cultivation in California, Florida, and along the Gulf coast. We know very little about its climatic adaptations, however, and must withhold definite recommendations until it has received a preliminary trial.

HORDEUM spp. (Poaceae), 60204 and 60205. **Naked barley.** From Yunnan, China. Seeds collected by J. F. Rock, National Geographic Society. Last year Dr. H. V. Harlan, of the Department of Agriculture, traveled extensively in the Mediterranean region, in British India, and in Abyssinia, to obtain new types of barley for testing in the United States. Mr. Rock has now added to the collection by contributing two interesting forms from Yunnan, secured toward the end of his stay in that region. He gives the following information regarding them:

60204. **HORDEUM sp.** "(Garthok, eastern Tibet. February, 1924.) Grade 1. One of the best grades of barley from the high plateau of eastern Tibet, where it grows at an altitude of 10,000 feet or more. It sheds its hull with the awn; the latter does not break off, leaving the hull attached as is the case with American barley. The grain is large and pure white. This grade is probably adapted to the uplands of the central western part of the United States.

60205. **HORDEUM sp.** "(Garthok, eastern Tibet. February, 1924.) Grade 2. A black barley from the high plateau of eastern Tibet where it grows at an altitude of 10,000 feet or more. This is one of the best grades."

LITCHI CHINENSIS (Sapindaceae), 59649. **Lychee.** From Santiago de las Vegas, Cuba. Presented by H. A. Van Hermann, Finca Mulgoba.

"In the hope of establishing the lychee in Florida, the Office of Foreign Seed and Plant Introduction has from time to time distributed young plants to experimenters in that State. Many of these plants have succumbed to cold winters; and at Miami the soil does not seem altogether satisfactory. On the western coast conditions are better in this last-named respect; when planted far enough south to be out of danger from severe frosts, the tree should have a good chance of success. Judging from the conditions under which the lychee is cultivated in southern China, we would expect the banks of the Caloosahatchee, below Fort Meyers, to prove better suited to it than most other sections of Florida.

"At Santa Barbara, Calif., the behavior of a single specimen planted twenty years ago or more, has shown that the lychee can be grown with a fair degree of success, provided a location practically free from danger of frost is selected. Most attempts to cultivate it in California, however, have resulted in failure. It does not seem likely that it will ever be feasible to grow it commercially in that State.

"The excellent quality of the lychee as a fresh fruit, and its ability to withstand shipment, suggest the desirability of establishing lychee orchards somewhere in the western hemisphere, so as to supply North American markets. It may be practicable to develop these in southern Florida. Certainly they would succeed in Cuba, Porto Rico, and tropical America generally. Mr. Van Hermann,

who has one of the few bearing trees in Cuba, has contributed this lot of seeds, which will be used to supply plants for further experiments in southern Florida." (Wilson Popenoe.)

MAGNOLIA CAMPBELLII (Magnoliaceae), 59372. From Orleans, Loiret, France. Presented by Leon Chenault.

Several years ago, Agricultural Explorer J. F. Rock called our attention to an unusually handsome magnolia, photographs of which were obtained by him at Darjiling. This was *M. campbellii*, native to the Himalayas, where it ascends to altitudes of 8,000 feet. Several efforts were made to introduce this species into the United States by means of seeds, but failure attended all of them. The seeds retain their viability a short time only, and are difficult to ship long distances.

Having learned recently that this tree is cultivated in southern France, we applied to our friend M. Leon Chenault for assistance in effecting its introduction into the United States. In response he has sent two seedlings of the red-flowered form, which have reached Washington in good condition. As soon as these have been established, we shall attempt to propagate them so as to distribute plants to those parts of the country where they seem likely to thrive.

Magnolia campbellii is reputed one of the finest ornamental trees of its genus. Its enormous flowers, 10 to 14 inches broad, vary from white to light purple, according to the variety. The tree becomes 80 feet high in its native home, and is deciduous. It has dark-colored bark and large, elliptical, dark-green leaves.

MUSA PARADISIACA SAPIENTUM (Musaceae), 59377. **Banana.** From Santa Marta, Colombia. Presented by V. M. Cutter, United Fruit Co., Boston, Mass.

"Gros Michel." More than nine-tenths of the bananas consumed in the United States are of this variety. It is cultivated in the West Indies, and in many places on the mainland of tropical America, whence steamers loaded with its fruit sail weekly for New York and New Orleans.

"In flavor, Gros Michel is surpassed by many bananas. It has recently shown another defect, also; -susceptibility to the Panama disease, a rot caused by *Fusarium cubense*. It was long ago found to have excellent shipping qualities, and probably for this reason more than any other, it became the dominant variety in North American markets. Now that it is firmly established, efforts to replace it with other sorts, some of which would be easier to cultivate because resistant to Panama disease, seem barren of results.

"During the last few years, considerable attention has been devoted to banana culture in southern Florida. The Cavendish or Chinese dwarf variety has been planted commercially on a small scale, and good returns have been reported. Several others, including the Lady Finger, have been cultivated in that state for many years, but a recent canvass failed to bring to light a single plant of Gros Michel. In view of the prominence which this sort attained in the banana trade more than a quarter of a century ago, it seems nothing short of astonishing that it should not have become established in Florida, where interest in tropical fruits has long been keen.

"Some months ago, this Department received requests from several Florida horticulturists for plants of Gros Michel. Unable to fill them, we turned to tropical America. Through the courtesy of Victor M. Cutter, Esq., Vice-president of the United Fruit Co., we have now received a shipment of 'stumps' from which a number of sturdy young plants are being propagated in the greenhouses at Washington. Though the stumps came from Santa Marta, Colombia, a region in which Panama disease has never been found, the young plants will be held in quarantine at Washington until all danger of their carrying any diseases or pests into Florida is past. They will then be distributed to banana growers who desire to test this variety in comparison with others now cultivated in that State." (Wilson Popenoe.)

NEPHELIUM MUTABILE (Sapindaceae), 60171. **Pulasan.** From Buitenzorg, Java. Seeds presented by Dr. P. J. S. Cramer, director, General Experiment Station, Department of Agriculture.

"I have never seen a fruiting tree of this species in tropical America, though perhaps a few may exist in the botanic gardens of the British West Indies. Its congener, the rambutan (*Nephelium lappaceum*), is nearly as rare in this part of the world; there are several bearing specimens in the lowlands of Ecuador.

"The pulasan is so closely similar to the rambutan in general character that it is sold in the markets of Singapore as a variety of the latter. Both these fruits are related to the lychee, and are native to the Malayan region. They are tropical in their requirements, and in the United States will probably not succeed; they merit cultivation however, in Porto Rico, the Canal Zone, and elsewhere.

"As far as I have seen, the pulasan tree does not exceed 30 feet in height. The leaves are compound, with two to four pairs of oblong to elliptic, acuminate leaflets 5 to 10 inches long. The red fruit, commonly borne in small clusters, is about the size of a walnut; the pericarp is thick, and covered with short, blunt, stout, fleshy spines. The flesh (properly the aril) is translucent, whitish, juicy, and of sweet, slightly acidulous flavor; it contains a single oblong seed of large size." (Wilson Popenoe.)

ORNITHOGALUM THYRSOIDES (Liliaceae), 60168. From Pretoria, Transvaal, Union of South Africa. Bulbs presented by I. B. Pole Evans, chief, Division of Botany.

This South African liliaceous plant was figured in Curtis's Botanical Magazine for the year 1809, under the name "Thryse-Flowered Star of Bethlehem." In its native home it is called "chinkerichee," a name applied also to other members of the genus. The globose bulb is about 2 inches thick, and the five or six narrow leaves are 6 inches to a foot in length. The flowers, which are borne at the upper end of a scape sometimes as much as 2 feet high, are slightly over an inch broad. They have six oblong-lanceolate petals, pure white in the variety here introduced, though brownish toward the base in the typical form of the species.

The Botanical Magazine says: "This is one of the few Cape of Good Hope plants mentioned by the earlier botanists. Clusius received a specimen, by a Dutch ship that had touched at the Cape, so far back as 1605."

In the United States, its cultivation out of doors will most likely be practicable only in California and the Southwest. When dried, the flowers retain their form and color admirably; for this reason they may be used as "everlastings."

PINUS PUMILIO (Pinaceae), 59697. **Pine.** From Lwow (Leopol), Poland. Seeds presented by Walery Swederski, director, Station Experimentale Botanique et Agricole.

Botanists differ as to the status of this plant; by some it is considered a dwarf form of *Pinus montana*, the mountain pine of central and southern Europe.

According to W. J. Bean (Trees and Shrubs Hardy in the British Isles), *Pinus pumilio* grows to 5 or 10 feet in height, forming not one leader, but a cluster of several stems curving out from the bottom. It is considered in England an extremely useful evergreen covering for dry slopes and mounds, and is said to thrive on poor soil. Since it is native in Europe from the Jura Mountains of Switzerland to Montenegro, its cultivation should be practicable in many parts of the United States.

POLYGONUM CAMPANULATUM (Polygonaceae), 60252. From Darjiling, India. Seeds presented by G. H. Cave, curator, Lloyd Botanic Garden.

This Himalayan contribution from Mr. Cave is likely to find a congenial home in those parts of the United States which have moist, cool climates with mild winters. The plant, which is a perennial of compact, bushy habit and handsome foliage, is recommended as useful for growing in half-shady, moist situations. During late summer and autumn it produces dense racemes of charming, bell-shaped, fragrant, rosy white flowers.

RUBUS TURQUINENSIS (Rosaceae), 60242. **Blackberry.** From Santiago de las Vegas, Cuba. Presented by Gonzalo M. Fortun, director, Estacion Experimental Agronomica.

During the past six or seven years the Office of Foreign Seed and Plant Introduction has obtained several interesting species of *Rubus* from Tropical America. *Rubus glaucus*, the Andes berry, which grows from Mexico to Peru, has shown promise in the United States, and is being used by plant breeders. *Rubus macrocarpus*, the giant-fruited Colombian berry, has proved too exacting in its climatic requirements to succeed in most parts of this country. From regions as distant as Sweden and Australia we have received requests for this species, mainly from persons engaged in breeding new berries, who desire to use it in crossing, because of its gigantic size. Several wild blackberries from Guatemala, Colombia, and Ecuador have been propagated and supplied to breeders, who are now working with them.

From the mountains of eastern Cuba comes this new species, *Rubus turquinensis*, first collected by the well-known botanist, Brother Leon, in 1922. It takes its

name from Pico Turquino, where it was discovered. Rydberg, who described it in 1923, states that it is close to *R. adenotrichos*, a species which this Office has introduced from several sources. The plant is said to grow to about 5 feet in height; it is densely hairy and armed with curved prickles about a quarter of an inch long. The leaves are trifoliolate, the leaflets lanceolate, long-acuminate, and finely serrate. The racemes are 5 to 10-flowered, the fruits about half an inch long, composed of many glabrous drupelets.

We are indebted to Professor Fortun for supplying seeds of this Cuban blackberry, which will be tested in Florida and California alongside others from tropical America, and which will be welcomed by plant breeders generally.

Notes on the Behavior of Former Introductions.

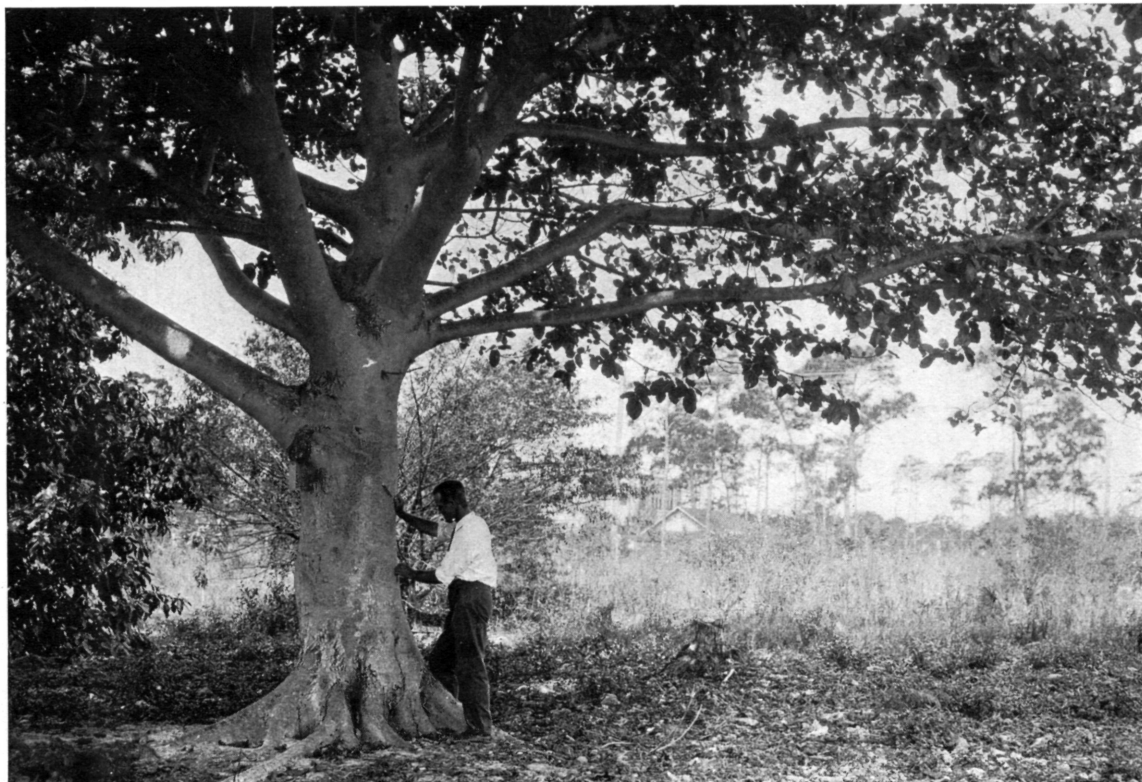
The first three notes given below were furnished by Henry Nehrling, Naples, Fla., August 18, 1924.

BYRSONIMA CRASSIFOLIA (Malpighiaceae), 43429. Nance. From the city of Guatemala, Guatemala.

"I received one small seedling April 9, 1919, and planted it out here on my Naples place in November, 1920. It is a most beautiful dense tree, about 8 feet high with large bright-green leaves and upright branches. The young leaves are soft and velvety copper-colored and silvery white on the underside. Though practically an evergreen it loses a part of its leaves in May. In April of this year it flowered for the first time, but it has not set any fruit. The flower spikes are upright and cylindrical, and the individually rather small, crimped flowers are bright yellow. This species appears to be a dry land plant, as it grows most luxuriantly in the driest and poorest sandy spot of my garden. Among all the trees and shrubs I have received from the Bureau of Plant Industry this one is of particular interest, being very ornamental, very distinct in character and perfectly adapted to our soil and climate. But one point must be kept in mind - it needs rather dry, well drained soil, and full sun. Mrs. Marian McAdow, of Punta Gorda, has an equally beautiful specimen in her Cleveland garden."

COUTAREA HEXANDRA (Rubiaceae) 36661. From Puerto Bertoni, Paraguay.

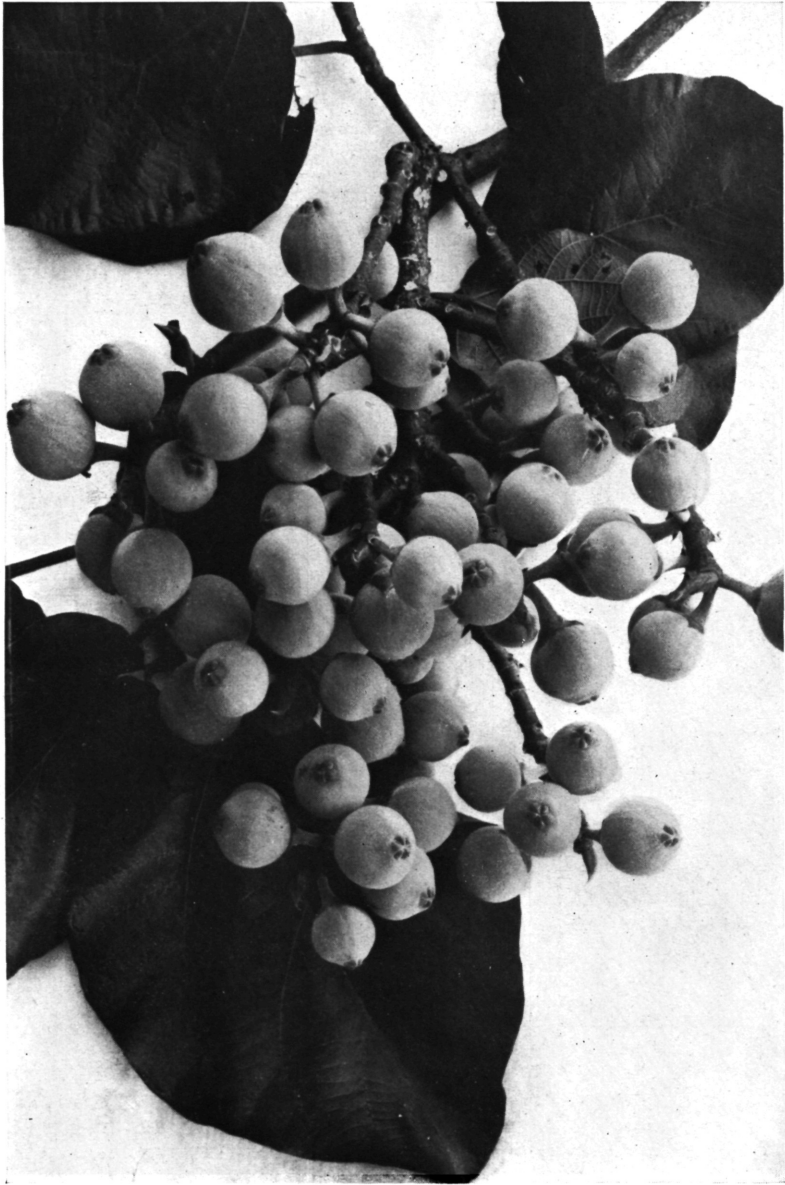
"This is another gem. I have two fine bushes about 4 feet high, both growing in the immediate neighborhood of *Byrsonima crassifolia*, on dry, sandy soil. Both are densely covered with dark green leaves, which somewhat remind one of those of *Antidesma bunius*. My plants were set out in November, 1920, and have flowered every year since 1921. The flowers are extremely beautiful and deliciously fragrant. They were described as being of yellow color, but mine are pure white with a delicate rosy sheen, and the inside is pencilled with rosy-purple. The rather large blossoms appear in upright spikes at the ends of the branches and in the axils of the deep-green leaves. They are trumpet-shaped, and of a very regular form and well opened. When covered with numerous spikes this shrub is extremely beautiful and very conspicuous. Last year the first crop of perfect seed ripened.



A HANDSOME AVENUE TREE FOR WARM REGIONS

(*Ficus sycomorus* L.; S. P. I. No. 13138)

In 1905 W. M. Longden sent a collection of fruit trees from Rhodesia, among which was a species of *Ficus*. After becoming established at the Miami Plant Introduction Garden, this soon developed into a handsome tree, remarkable for the golden color of its scurfy trunk, the vigor and rapidity of its growth, and the beauty of its foliage. To those familiar with the relatively slow development of most ornamental trees in the North, it may seem scarcely credible that the specimen shown above is only 13 years of age. (Photographed by Wilson Popenoe, Miami, Fla., May 22, 1916; P16753FS.)



THE FRUITS OF THE RHODESIAN OR SYCAMORE FIG

(*Ficus sycomorus* L.; S. P. I. No. 13138)

Originally introduced as a fruit tree, *Ficus sycomorus*, from Rhodesia, has shown itself of unusual value in Florida as an ornamental, while the fruits produced have been of little value. Apparently they are sterile, and it is possible that they would be of better quality if pollinated, as in the case of the Smyrna fig. They are produced in enormous quantities along the larger limbs of the tree as well as on small branches. The ones shown above were borne by the tree illustrated on the preceding plate. (Photographed by Peter Bisset, Miami, Fla., August 30, 1920; P26734FS.)

The seeds are small, flat and dry, and are crowded together in a flat triangular capsule. This is a most valuable ornamental shrub for southern Florida, where it thrives vigorously in dry, sandy soil. Its distinct and not too strong perfume, which is exhaled particularly during the night, is an additional charm."

FICUS PADIFOLIA (Moraceae), 44116. Fig. From El Coyolar, Costa Rica. "This is the most elegant and graceful in my collection of Ficus, consisting of about forty different species. Its rather small leaves, growing in dense masses along the slender drooping branches, are glossy, light green, contrasting strongly with the deep somber green foliage of *Ficus retusa* (*F. nitida*) and *F. benjamina*. The young foliage is light coppery-red, adding much to the beauty of the plant, which is extremely dense - so dense, indeed, that the beautifully drooping branches have to be bent aside in order to examine the trunk. I received two small plants April 9, 1919, and planted them out here on my Naples place in November, 1920, one in a dry sandy spot, the other in moist undrained soil on the edge of my cypress hammock. Though this latter specimen is quite healthy, it cannot be compared in luxuriant growth, beauty and elegance with the one in high vineland. This is about 15 feet high and about 10 feet in spread, provided with dense leafy branches from the ground up. The one in the moist soil is scarcely more than 6 feet high, and its growth is rather open. This experiment shows that this charming Ficus is a dry land plant. It will prove a most valuable tree for lawns and for avenue planting in southern Florida. Its root system is vigorous but not aggressive, as is the case in so many other species of the genus. It is the most charming and beautiful, the most graceful and dense of all the trees on my place. It has ripened quite a number of small berries, the size of peas and dull red. Mocking birds are very fond of these fruits. My trees have received now and then an application of blood and bone fertilizer."

ULMUS DENSA (Ulmaceae), 32829. Stamboul elm. From Merv, Turkestan.

"In 1917 I received two young trees of this elm, and planted them in my experimental nursery, where they grew about 4 feet in two years. I then transplanted them to an open, well-drained space on high ground. At this date both are 26 feet high, with a diameter of 18 inches 5 feet above the ground. They grow rapidly and symmetrically, and have very small leaves, much smaller than those of our native elm; the branches grow horizontally, drooping at the ends. The rather dense foliage is a healthy green, and the trees have been absolutely free from any disease or insect pest. They were sufficiently hardy to withstand, one year after planting, one of the severest winters ever experienced in this latitude." (W. S. Pilling, Philadelphia, Pa., August 25, 1924.)

The Quetta Nectarine.

(*Amygdalus persica nectarina* Ait.; S.P.I. No. 34685.)

On the table before me is a plate of nectarines just received from the Plant Introduction Garden at Chico, Calif. As we eat one of these delicious, juicy, aromatic specimens, we mentally turn back the pages of history and see a town

nestling among the mountains of one of the northwest frontier provinces of India.

This is Quetta, one of the outposts of civilization established by the British Empire. Quetta lies at an elevation of 6,000 feet above the level of the sea.

More than twenty years ago David Fairchild, on one of his agricultural exploration trips, made the acquaintance of Lieut. W. L. Maxwell, an officer of the British Army. It turned out that Lieut. Maxwell was sent to Chaman, a military outpost a few miles beyond Quetta and right on the border of Afghanistan. In one of his letters, written in 1905, he says:

"Here I am within one and a half miles of the Afghan frontier with an Afghan fort only five miles away and in plain sight. We get lovely weather here in spring and autumn but the summers are hot and the winters are cold. Last winter I had two fingers frostbitten."

Lieut. Maxwell was asked to send in seeds and plants from this interesting region. Under date of April 12, 1906, he wrote:

"I fear I can do very little. You must give me explicit instructions regarding cuttings. I have sent you a tin full of good nectarine and peach seeds but I am sure you have far better ones. The only point in favor of them is that they stand cold, if that is any use, and they do not get much water, as no rain falls here from April to December. These seeds were taken from the best trees in Quetta. The summer temperatures of this region frequently reach 100° F. in the shade. Winter temperatures are known to drop below zero and severe frosts continue for weeks at a time."

Seeds were received March 24, 1906, and were sent to our Plant Introduction Garden at Chico, Calif. They were given our S.P.I. (Seed and Plant Introduction) number, 18235. A few years later, when the seedlings began to bear, one of them attracted particular attention. In 1912 a somewhat elaborate experiment was undertaken at the Chico Garden to determine the value of the Chinese peach, *Amygdalus davidiana*, for stock purposes. Among other fruits worked on this peach was the Quetta nectarine. In order to distinguish this particular seedling from the original lot, it was given a new S.P.I. number, 34685. This number it continues to bear.

The first general distribution of the Quetta nectarine was made in 1914. Distributions each year since that time have been widespread. Opportunity has therefore been given to test this fruit in nearly all parts of the United States where it is thought it might prove hardy. Numerous reports have been received as to its behavior; the majority of them speak favorably of it. Following are a few extracts from them:

"Am more than pleased to say that this nectarine has done well. It is now about 5 feet high and about 2 inches in diameter at the base. In the early fall of 1922 I took from the tree 118 large-sized nectarines which I measured and they averaged 7 inches in circumference." (Paul B. Posson, Sanger, Calif.)

"The Quetta nectarine sent to me five years ago is now a large thrifty tree and has had a full bloom every year beginning with the second year, so you see in this climate it stood the severe winters of 1917-1918 and 1918-1919 and is as hardy in bud as any of my peaches. I have not been successful in getting a crop of fruit owing to spring frosts." (William C. Degelman, Pittsburgh, Pa.)

"The Quetta nectarine proves to be a large, handsome fruit with smooth skin. The tree is full this season and came through five winters without damage." (J. M. Bechtel, Hamburg, Iowa.)

"Has fruited two seasons; very hardy, strong grower." (W. T. Parrott, Clinton, Ill.)

"The Quetta nectarine grows nicely, bears every year; fruits very large and richly flavored; ripens in July." (Adolf K. Polansky, Lyons, Tex.)

"Has borne fruit the last two seasons and is very vigorous." (Elizabeth B. Riley, Rockville, Md.)

"One of the finest nectarines we have seen and the most fragrant. Very large; red over greenish white ground; sweet and delicious; clingstone; ripens in August; shy in bearing so far and very susceptible to leaf curl." (Tribble Bros., Elk Grove, Calif.)

In a note just received from J. E. Morrow, Superintendent of the Plant Introduction Garden, Chico, Calif., forwarding a package of the nectarines, Mr. Morrow says:

"You will kindly note that W. Harrison, County Agent of Yuba County, was here one year ago with Mr. Gregory, of the Gregory Brothers Nursery at Yuba City. They were very much interested in this fruit at that time and during my visit to San Francisco just recently, Mr. Harrison again called and stated that Mr. Gregory was endeavoring to secure budwood to bud enough trees to plant ten acres for a buyer in the vicinity of Marysville.

"Recently we were visited by Prof. W. F. Duruz, Instructor in Pomology at the University Farm at Davis. Prof. Duruz and his class spent a part of one day here. He stated at that time that I. E. Powers, of Vacaville, had about 200 trees of Quetta in bearing and that last year he sold them in the Los Angeles market at 10 cents per pound. He further said that Mr. Powers was highly enthusiastic over the Quetta for shipping purposes. Its thick skin and firm flesh make it an unusually good shipper for a nectarine." Following is a brief description of the fruit:

QUETTA NECTARINE, No. 34685. Fruit large, yellowish green, splashed and irregularly marked with brilliant carmine; cavity average size, shallow; suture shallow; skin smooth, tender; flesh yellowish white streaked with red near the pit, rather coarse, firm, juicy, sprightly, highly flavored and aromatic; pit large, cling. A fine fruit and good shipper. Numerous shipments made from Chico, Calif. to Washington, D. C., have borne the journey well. Season at Chico July 20 to August 1.

Mr. Morrow's description of the Quetta nectarine follows: "Tree fairly vigorous, producing extra large fruits with green skin splashed and mottled with red where exposed to the sun; stem cavity of average size and depth; suture well defined; halves slightly unequal; flesh light colored, juicy and of fine flavor; pit large, red, a cling. This we believe to be the best of all nectarines for shipping purposes. Its large size, firm skin and flesh make it particularly desirable."

B. T. Galloway.

FOREIGN SEED AND PLANT INTRODUCTION

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Wilson Popenoe, Botanist, Agricultural Explorer Acting in Charge.

Roland McKee, Horticulturist, In Charge of Plant Introductions.
P. H. Dorsett, and F. A. McClure, Agricultural Explorers.
B. T. Galloway, Senior Pathologist.
Peter Bisset, Horticulturist.
C. C. Thomas, Associate Horticulturist, Plant Distributions.
H. C. Skeels, Assistant Botanist, Seed Collection and Herbarium.
R. A. Young, Assistant Horticulturist, New Crops for the South.
Donald Peattie and Paul Russell, Junior Botanists.
F. J. Hopkins, Senior Scientific Aid.
Irving W. Dix, Scientific Aid.

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Edward Goucher, Superintendent.
Ray W. Woodbury, Senior Scientific Aid, Plant Propagation.
Albert Close, Scientific Aid, Plant Propagation.

Bellingham, Wash.
B. L. Peters, Scientific Aid, Acting in Charge.

Chapman Field, Fla. (P.O. Coconut Grove, Fla.)
W. A. Patten, Superintendent.
Charles H. Steffani, Senior Scientific Aid, Plant Propagation.
Eric Carlson, Scientific Aid, Plant Propagation.

Chico, Calif.
J. E. Morrow, Superintendent.
Henry Klopfer, Scientific Aid, Plant Propagation.

Miami, Fla.
Edward Simmonds, Superintendent.

Savannah, Ga.
David A. Bisset, Superintendent.

Special Collaborators.

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