

EXPLANATORY NOTE

This circular is made up principally of notes received from agricultural explorers, foreign collaborators, and correspondents, concerning the more important plants which have been received recently by the Office of Foreign Seed and Plant Introduction. It also contains reports on the behavior of plants which have been introduced in previous years.

Descriptions appearing here are revised and later published in the Inventory of Seeds and Plants Imported,-- the permanent record of plant introductions made by this Office.

Plant Immigrants should be considered merely an ANNOUNCEMENT OF THE ARRIVAL OF PLANT MATERIAL. As a rule all material is propagated before being distributed; this may require several years.

The Annual Catalogue of New Plant Introductions describes briefly the plants available for distribution. Application for seeds or plants listed in Plant Immigrants may be sent at any time, however, and will be filed in the order of their receipt. When material is ready for distribution, these requests will be given first attention; if their number is sufficient to exhaust the available supply of a given species, it will not be included in the Annual Catalogue.

Plant breeders and experimenters who desire plants not available in this country are invited to correspond with this Office which will endeavor to secure the required material through its agricultural explorers, foreign collaborators, or correspondents.

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from Malwa, central India. It is 18 to 20 inches in length, and thicker and more fleshy than the ordinary cucumber varieties. It is grown in the rainy season, and as the Malwa Plateau is nearly 2,000 feet above sea level, the temperature at that season is lower than in many parts of India. I believe that this variety should do well in the warmer parts of the United States." (Roberts.)

CUCURBITA PEPO (Cucurbitaceae), 56854. **Vegetable marrow.** From Avondale, Auckland, New Zealand. Seeds presented by H. R. Wright. "This is the vegetable marrow as grown by the natives of New Zealand. It is a good keeper, and can be used either green or ripe." (Wright.)

DIOSPYROS KAKI (Diospyraceae), 56831-56833. **Kaki.** From Osaki Machi, Tokyo, Japan. Seeds presented by Sengo Matsuda. Quoted notes by Mr. Matsuda. With the rapidly increasing importance of persimmon culture in the United States, the question of rootstocks has become urgent. *Diospyros lotus* has not proved altogether satisfactory in many regions. Reports from Japan indicate that various wild or semiwild forms of *D. kaki* are used in that country as stocks for the cultivated sorts, and the following three numbers are the first result of our effort to introduce these forms for the use of American horticulturists.

56831. "'Gara-gara' (prolific bearer). A very stout tree from the mountainous districts of Kiusiu Island. The sour fruits are pickled, and the juice is used for water-proofing purposes."

56832. "'Tsurushi kaki.' This is good for using dried."

56833. "'Yama-gaki.' Sour fruits used for pickles."

GORDONIA sp. (Theaceae), 56823. From Yunnan, China. Seeds collected by J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry. "(No. 7884. Tienyinssu. January, 1923.) A shrub about 8 feet high found at an altitude of 6,000 feet. The handsome white flowers are 1½ inches across, and the fruit is a woody capsule." (Rock.)

HAKEA ACICULARIS (Proteaceae), 56879. From Richmond, Victoria. Seeds presented by F. H. Baker. A tall evergreen shrub or small bushy tree, native to Australia, with very handsome foliage which is rigid and spiny, thus serving to protect the plant against animals. The plant is suitable for hedges and shrubberies, is quite hardy, and requires but little moisture or cultivation. (Adapted from University of California Publications, Botany, vol. 4, p. 19.)

IRIS sp. (Iridaceae), 56811. From western Yunnan, China. Seeds collected by J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry. "(February 6, 1923.) Seeds collected from a fruiting plant about 2 feet high found in the snow at an altitude of 8,800 feet on

ACACIA VERNICIFLUA (Mimosaceae), 56869. From Richmond, Australia. Seeds presented by F. H. Baker. A slender, much branched shrub, with leathery, very narrow phyllodia (leaflike stems) about 2 inches in length, and deep yellow flowers in small heads which are generally in pairs. It is native to the barren hills around Bathurst, New South Wales. (Adapted from Curtis's Botanical Magazine, pl. 3266.)

ANANAS sp. (Bromeliaceae), 56852. Pineapple. From Vicosá, Minas Geraes, Brazil. Seeds presented by P. H. Rolfs, director, Escola Superior de Agricultura e Veterinaria. "(No. 2. March 12, 1923.) From one fruit. This is considered to be a wild pineapple, and is very abundant here. In general the fruits are cylindrical, about 4 inches in diameter and 6 inches long. The crowns are medium sized in comparison with the size of the fruit and crown slips are produced as well as basal ones. In color the fruits vary from white to dull green and red. The leaves are long and narrow, with very rigid and very sharp spines set quite a distance apart; they remind one of the leaves of the 'ananaz ratao' of the Cubans, which also grows wild here. The bract which subtends each segment of the fruit is so large that, when the fruit is ripe, the bract laps over the subtended segment. This pineapple should be useful in hybridization experiments." (Rolfs.)

ANDROCYMBIUM PUNCTATUM (Melanthiaceae), 56821. From Tripoli, Libia, North Africa. Bulbs presented by E. O. Fenzi. A stemless ornamental of the amaryllis family, native to the Cape of Good Hope. The whitish flowers, with green veins and purple stamens, are in a dense umbel surrounded by about four narrow, spreading, bright-green leaves, 5 or 6 inches long. (Adapted from Gardeners' Chronicle, vol. 1, new series, p. 786.)

CARAGANA BOISI (Fabaceae), 56808. Altavana. From Verrieres-le-Buisson, Seine-et-Oise, France. Presented by A. Meunissier. Seeds of a handsome bush 10 to 12 feet high, with long, arching branches, native to Szechwan and eastern Tibet, China. In May the light-green foliage and numerous yellow flowers make this an especially attractive ornamental. (Adapted from letter of A. Meunissier, May 18, 1923.)

CRATAEGUS LAVALLEI (Malaceae), 56810. Hawthorn. From Verrieres-le-Buisson, Seine-et-Oise, France. Scions presented by A. Meunissier. "A tree of garden origin with pure white flowers and red fruits an inch in diameter, well displayed by the rich brown leaves in autumn." (H. C. Skeels.)

CUCUMIS SATIVUS (Cucurbitaceae), 56805. Cucumber. From Jaipur, Rajputana, India. Seeds presented by Sir James Roberts. "This cucumber is

the crater of the extinct volcano Tayinshan, near Tengyueh. The natives say that this is a very handsome plant with large, purplish blue flowers." (Rock.)

LIGUSTRUM sp. (Oleaceae), 56824. **Privet**. From Yunnan, China. Seeds collected by J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry. "(No. 7877. Wolung. January, 1923.) A very ornamental shrub 10 feet high, which grows among lava boulders near Tengyueh at an altitude of 6,000 feet. The cream-colored flowers are in large pyramidal clusters." (Rock.)

LUCULIA sp. (Rubiaceae), 56825. From Yunnan, China. Seeds collected by J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry. "(No. 7824. December, 1922.) A handsome shrub 6 to 18 feet high which grows on the Shweli-Salwin Divide in mixed rain forests at an altitude of 8,000 feet, and also in open gulches at a slightly lower altitude, even as low as 6,000 feet, but reaches its best development at 8,000 feet. In winter this region is often covered with snow and ice. The bright-green narrow leaves have reddish stems, and the rich-pink flowers are in large terminal corymbs 6 inches wide. The individual flowers are deliciously fragrant and nearly 2 inches across, with a salver-shaped corolla and a tube an inch long. This is one of the handsomest shrubs of which I know." (Rock.)

MEDICAGO SATIVA (Fabaceae), 56853. **Alfalfa**. From Tucuman, Argentina. Seeds presented by W. E. Cross, Estacion Experimental Agricola. "'Inverniza No. 3.' A new variety which we discovered in this section; it is of the same type as the smooth form of Peruvian alfalfa, but of considerably greater vigor, and also of greater permanence when once established." (Cross.)

PHYSALIS PERUVIANA (Solanaceae), 56855. **Poha**. From Avondale, Auckland, New Zealand. Seeds presented by H. R. Wright. "'Golden Nugget.' A new variety of Cape gooseberry. It is not a dessert fruit, but is suitable for making jam." (Wright.)

PITTOSPORUM sp. (Pittosporaceae), 56826. From Yunnan, China. Seeds collected by J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry. "(No. 7886. Kaotien. January 21, 1923.) A tree 30 to 40 feet high, handsome in shape and foliage, with cream-colored flowers borne in large terminal panicles, and red fruits." (Rock.)

RHODODENDRON spp. (Ericaceae), 56827, 56828, 56857. From Yunnan, China. Seeds collected by J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry. Quoted notes by Mr. Rock.

56827. *RHODODENDRON* sp. "(No. 7865. Homushu. December, 1922.) A shrub 10 to 15 feet high, which grows at an altitude of 8,000 feet on the summit of the Salwin Watershed in dense forests but near the margins. The oval dark-green leaves, deeply wrinkled above, are covered with matted brown wool, as is also the inflorescence. The flowers are white."

56828. *RHODODENDRON* sp. "(No. 7866. Kaotein. January 6, 1923.) A handsome compact shrub 6 to 8 feet high, found in forests 2 days' travel from Tengyueh at an altitude of 6,500 feet. The uniformly green leaves are quite narrow, and the flowers are said to be white."

56857. *RHODODENDRON DELAVAYI*. "(No. 7935. Tengyueh. February 20, 1923.) A shrub 5 to 6 feet high which grows on the summit of the extinct volcano Lutsungshan, at an altitude of 9,050 feet, about 10 miles north of Tengyueh. The very narrow leaves are pale brown beneath, and the crimson flowers, which are not fragrant, are in terminal clusters. This is the first of all the rhododendrons to bloom, the flowers appearing in early February."

ROSA SEMPERVIRENS (Rosaceae), 56820. Rose. From Nice, France. Seeds presented by Dr. A Robertson Proschowsky. A shrubby wild rose which grows in hedgerows and rather dry situations in the southern and western parts of France. The shining-green leaves, composed of 5 to 7 leaflets, are persistent throughout all or part of the winter, and the single white flowers appear from May to July. There are a number of horticultural forms cultivated as ornamentals. (Adapted from Bonnier, *Flore Complete de France*, vol. 4, p. 6, pl. 181.)

SCHIMA sp. (Theaceae), 56829. From Yunnan, China. Seeds collected by J. F. Rock, Agricultural Explorer of the Bureau of Plant Industry. "(No. 7864. Homushu. December, 1922.) A fine tree 30 to 40 feet in height, which grows in dense forest on the Salwin Watershed at an altitude of 8,000 feet. The leaves are narrowly oval, the flowers are white, and the fruits are small globular capsules. There are about 4 species of *Schima* found in Yunnan, and this one is rarer than the others." (Rock.)

VICIA UNIJUGA (Fabaceae), 56861. Vetch. From Omagari, Akita Ken, Japan. Seeds presented by Dr. Isabura Nagai, director, Riku-u Substation, Agricultural Experiment Station. "Nantenhagi."

"An erect-growing plant which would appear to be valuable as a forage plant on wooded pasture ground in the cooler sections of the United States." (Frank N. Meyer.)

A perennial vetch, native to Siberia, with an upright or ascending stem 8 to 16 inches long and rather large, purplish flowers. It is sometimes cultivated in European gardens as an ornamental. (Adapted

from Ascherson und Graebner, Synopsis der Mitteleuropaischen Flora, vol. 6, pt. 2, p. 919.)

ZEA MAYS (Poaceae), 56862-56865, 56867. **Corn.** From Krizevac, Croatia, Kingdom of the Serbs, Croats and Slovenes. Seeds presented by the Director, Royal Agricultural College, Krizevac, through J. F. McGurk, American consul, Zagreb. Quoted notes by the Director.

56862. "'Krizevacka okrugla Hrvatica' ('Croatian Maid of Krizevac'), grown at the college for many years. A very good and fruitful sort which ripens early and flourishes even in colder parts."

56863. "'Rumski zlatni zuban' (Gold-kernel corn of Ruma: a town in Sylvania), has been grown at the college for many years. It is a late very prolific kind that does not always ripen with certainty in Krizevac, but in the lowlands along the Danube, Sava and Theiss Rivers, where the climate is somewhat like that of the steppes, with very hot summers, it ripens well."

56864. "'Krivacki hangari' ('Krizevac warrior'). Grown at the college for many years. It is an especially early kind, perhaps the earliest known. It originated in the Bosnian Mountains. It can be sown also in high mountain regions, and in upper Croatia it is sown after the field has been cleared of the winter barley, and ripens regularly."

56865. "'Krizevacki Pignoletto.' This has been grown at the college for many years. It is an early sort with tiny grains, very suitable and popular for human consumption. Has been grown a long time in Krizevac."

56867. "'Hercegovacki' ('Herzegovinian') from the mountains of Herzegovina, where the ground is stony, the winters severe, and the summers hot and dry, a climate which is very unfavorable for corn. This variety is grown by the peasants."

Notes on Behavior of Previous Introductions.

AMYGDALUS PERSICA (Amygdalaceae), 33219. **Peach.** "Vainqueur." From Granada, Spain.

"In February, 1918, I received two peach trees, which I planted in deep gravelly loam, which is irrigated once every season, just after the crop is harvested. One of these trees has borne regularly the past three years as much fruit as it could hold without propping. The fruits average 4½ ounces in weight, and are light green, with a red cheek on the exposed side. The flesh is white, very juicy, and of excellent flavor. Although a clingstone, with sufficient pressure the flesh separates from the stone, and when fully ripe the skin is easily removed. This season we picked the first peaches on June 1." (George B. Shaffer, Sunland, Calif., June 17, 1923.)

"This tree, received in 1918, bore a bushel of fine peaches July 21, two weeks earlier than the earliest variety grown at one of the largest peach orchards in Michigan, located near Romeo." (Dr. Frank N. White, Romeo, Mich., December 15, 1922.)

COLOCASIA ESCULENTA (Araceae.) **Dasheen.** "Some time ago you sent me some dasheens, which I planted. From some hills I obtained as much as 15 pounds of tubers. I am still raising them and now have a fine patch. My family likes them as well as Irish potatoes and, besides, they come in when the latter are gone. On account of the climate we cannot keep Irish potatoes, but the dasheens keep well." (Alfred E. Thomas, Labelle, Fla., May 15, 1923.)

"The dasheen has been the only real money crop we have been able to grow during the last few years. I have been convinced as to the reliability of it, as last year I netted \$55.00 per acre, besides \$3.00 per day for my own labor and team, on a 6-acre tract, while the year before, after planting in sweet potatoes, I netted nothing, and received only about 30 cents per day for my labor. Of course it was an unfavorable season for potatoes that year, but the same land produced the dasheens under what would have been a still more unfavorable season for sweet potatoes. All we want now is the market for dasheens, but I know it will take a great deal of hard work to make it.

"The dasheen crop seems to be good through this section, although the recent heavy rains damaged considerably those planted on low land that were not bedded. I have only about three acres planted to dasheens this season." (Ernest Petree, Callahan, Fla., June 19, 1923.)

CYDONIA OBLONGA (Malaceae), 33213. **Quince.** "Antequera." From Granada, Spain. "This tree, which I received in 1917, has just borne, for the first time, a peck of the finest looking and finest tasting quinces we have ever grown. At this writing they are keeping in excellent condition." (Dr. Frank N. White, Romeo, Mich., December 15, 1922.)

PYRUS COMMUNIS (Malaceae), 43183. **Pear.** "Belmont." From Avondale, Auckland, New Zealand. "There were five pears ripened on this tree October 15. They were medium sized, with light-green skin, tinting yellow, with russet at the blossom end. The flesh was white, fine grained, very sweet and juicy, with a pleasing sprightly flavor, and not darkened at the core." (Dr. Frank N. White, Romeo, Mich., December 15, 1922.)



THE CHINESE HOLLY, A HANDSOME ORNAMENTAL PLANT FOR THE SOUTHERN STATES.

(*Ilex cornuta* Lindl. and Paxt.; S. P. I. No. 24638.)

The Chinese or horned holly, *Ilex cornuta*, thrives in California and the Southern States, withstanding the winters as far north as Washington, D. C. Throughout this region it affords an admirable substitute for the well-known English holly, which rarely does well in the warmer sections of this country. (Photographed by Peter Bisset at the Rice Experiment Station, Crowley, La., April, 1922; P27881FS.)



THE CHINESE HOLLY.

(*Ilex cornuta* Lindl. and Paxt.; S. P. I. No. 24638.)

The leaves of the Chinese holly have peculiar spiny tips, the two curved points suggesting horns. In this country the berries, which are orange-red and larger than those of the English holly, are produced in great numbers, although it is reported that in England the species does not fruit well. (Photographed by P. H. Dorsett, Chico, Calif., October 21, 1921; P27412FS.)

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