

47874 to 47876.

From Bogota, Colombia. Presented by Mr. W. O. Wolcott. Received July 9, 1919.

47874. ANNONA MURICATA L. Annonaceæ.

Soursop.

"The soursop, known in Spanish-speaking countries as guanábana, sometimes shortened to guanaba, is unexcelled for sherbets and refreshing drinks. Like other anonas, however, it does not always fruit abundantly when grown from seed, and it will be necessary to establish named varieties, propagated vegetatively, before soursop culture can become the basis of an industry.

"The fruit is oblong, sometimes 4 or 5 pounds in weight, dark green, and prickly on the surface. The flesh is white and cottony or tough in texture, so that it is not good to eat out of hand. But it has a rich, aromatic, and perfectly delicious flavor, and when mixed with milk it makes one of the best drinks of the Tropics—the champola of Havana restaurants and cafés.

"The tree is tropical in its requirements and can be grown in the United States only in the southern part of Florida, approximately the area between Palm Beach and Punta Gorda on the north to Key West on the south. It is small, rarely attaining more than 20 feet in height, and has thick glossy leaves and large greenish flowers. It may be mentioned that the pollination of the anonas has never been studied sufficiently, and it is probable that their productiveness may be increased by attention to this subject. Mr. P. J. Wester and others have shown that most species are dependent upon cross-pollination, and if the insects which normally effect this are not present something will have to be done to insure its being accomplished." (*Wilson Popenoe.*)

47875. ANNONA SQUAMOSA L. Annonaceæ.

Sugar-apple.

"The sugar-apple, usually known in Spanish-speaking countries as *anona* or *anón*. This is one of the best of the anonas for strictly tropical regions, and it can even be grown where there are light frosts. It is too tender, however, for cultivation in California. In Florida it succeeds as far north as Cape Canaveral, though it is not commonly grown north of Palm Beach. It is more productive than several of the other anonas, especially when grown in a rather dry climate.

"The sugar-apple is a small tree, sometimes not attaining more than 12 or 15 feet in height, and rarely more than 20 feet. Its fruits are the size of apples and suggest pine cones in general appearance, whence the name 'pinha' which is used in Brazil. When fully ripe the fruit is soft and the carpels separate readily, exposing the snow-white, delicately flavored pulp. Like the cherimoya, the sugar-apple is eaten out of hand; it resembles the cherimoya in flavor, but has less acidity and is not, therefore, quite so delicious.

"The plant is widely distributed throughout the Tropics. It has become naturalized in parts of India and is highly esteemed in that country as a fruit. The Anglo-Indians call it 'custard-apple,' but this name is applied to all anonas without discrimination and leads to confusion. The Hindus have named it 'sharifa,' meaning noble, and 'sitaphal,' the fruit of Sita, one of their gods.

"In short, the sugar-apple is one of the important fruits of the Tropics. It is particularly adapted to dry regions, but does not withstand more