"The fruit reaches maturity by the end of September at Lake Amatitlan and is then picked for market, but the quality would doubtless be much better if it were left on the tree some time longer. In excessively wet weather the fruits fall as soon as they are mature. With less soil moisture they hang on longer." (*Wilson Popenoe.*)

55737. TABEBUIA PENTAPHYLLA (L.) Hemsl. Bignoniaceæ.

From St. Croix, Virgin Islands. Seeds presented by J. B. Thompson, agronomist in charge, Agricultural Experiment Station. Received August 25, 1922.

This tree is native in the West Indies and Central America and is often cultivated as an ornamental.

"The *matiliscuate* is a handsome flowering tree found in north-central Guatemala, especially in the Valley of Salama, and commonly growing near small streams. I have seen it at altitudes of 2,000 to 3,500 feet. The tree is about 35 feet high at maturity, with a spreading crown, deciduous during the latter part of the dry season (January to March), and producing large clusters of pink flowers which make the tree a mass of color visible for some distance. Its flowering season is from January to March, and the seeds, which are produced in long slender pods, ripen in May and June.

"As an ornamental tree for cultivation in southern Florida and possibly also in California, the *matiliscuate* seems well worthy of trial. The only defect of this plant is the habit of dropping its leaves during the dry months of the year. If it flowers in the same months in Florida as in Guatemala, it should be a valuable addition to the flowering trees of that region. It thrives on heavy but rocky land and does not seem to require a large supply of water." (*Wilson Popenoe.*)

For previous introduction, see S. P. I. No. 44998.

55738. PAULLINIA CUPANA Kunth. Sapindaceæ. Guarana.

From Rio de Janeiro, Brazil. Seeds presented by Dr. J. Simão da Costa, through Dr. W. L. Schurz, commercial attaché of the American Embassy. Received September 6, 1922.

A stout, bushy vine found wild in Venezuela and northwestern Brazil and also cultivated in the latter country for the sake of the grapelike fruits, from which is obtained the product known as guarana. This, in the form of a black paste, has received considerable attention in the pharmaceutical world in recent years as a natural source of caffein.

The following analysis shows the composition of guarana:

	Per cent.		Per cent.
Caffein	5.388	Starch	9.350
Essential oil	2.950	Glucose	.777
Resin	7.800	Pectic acid, malic acid, dextrin, etc	7.470
Coloring matter	1.570	Vegetable fiber	49.125
Saponin	.060	Water	7.650
Guarana-tannic acid	5.902		
Pyro-guarana acid	2.750		

Owing to the fact that guarana is so rich in caffein, a small dose enables a man to endure extraordinary hardship, and taken sparingly it is said to be excellent for intestinal trouble.

The Mauhe district in Para, Brazil, produces about 25 tons of guarana paste annually, and the cultivation of the plant has recently been begun in the States of Goyaz and Rio de Janeiro. A number of new and successful pharmaceutical compounds contain this product. (Adapted from *Bulletin of the Pan American Union, vol. 51, p. 268.*)

55739 to 55747.

From Avondale, Auckland, New Zealand. Budwood and trees presented by H. R. Wright. Received September 13, 1922. Quoted notes by Mr. Wright.