

51396 to 51403—Continued.

51403. *ULLUCUS TUBEROSUS* Caldas. Basellaceae.

"(No. 448. September 11, 1920.) Tubers of the *chugua*. Like the *hibia* (*Oxalis tuberosa*), the *chugua* is one of the root crops which has been cultivated by the Indians of the Andes since prehistoric times. The plant is a slender creeper, making stems 2 or 3 feet in length which trail over the ground. It matures in about six months and may be planted (there in Colombia) at any season of the year. The tubers resemble in form small potatoes, but are rosy red or light yellowish green. They are oval and rarely over 3 inches long.

"Like the *hibia* and *cubio*, the *chugua* is usually eaten after boiling with meat or it forms one of the ingredients of a vegetable stew. It likes a light soil and plenty of moisture."

For previous introduction, see S. P. I. No. 41196.

51404 to 51414.

From the city of Guatemala, Guatemala. Seeds forwarded by H. W. Goforth, American consul, at the request of Wilson Popenoe, Agricultural Explorer of the United States Department of Agriculture. Received October 14, 1920. Quoted notes by Mr. Popenoe unless otherwise stated.

51404. *ANNONA DIVERSIFOLIA* Safford. Annonaceae. **Ilama.**

"A small tree with thin, membranaceous foliage and large, conoid, or broadly ovoid fruits about 6 inches long. The edible pulp is cream colored or rose tinted, inclosing hard, smooth, nutlike seeds. The tree is native to southern Mexico and has been introduced into southern Florida." (*W. E. Safford.*)

For previous introduction, see S. P. I. No. 46781.

51405. *BYBSONIMA SPICATA* (Cav.) DC. Malpighiaceae.

"*Nance*; flower red and yellow."

51406. *ENTEROLOBIUM CYCLOCARPUM* (Jacq.) Griseb. Mimosaceae.

"*Guanacaste*; white flowers."

One of the most beautiful and one of the largest trees of the Pacific region of tropical America, where it grows to an altitude of 900 meters. The trunk sometimes becomes a meter in diameter. The compound leaves close up during the night, and the pods are twisted into a short spiral. The leaves and pods are much relished by cattle. (Adapted from *Pittier, Plantas Usuales de Costa Rica, p. 98.*)

For previous introduction, see S. P. I. No. 44746.

51407. *GUAIACUM GUATEMALENSE* Planch. Zygophyllaceae.

"*Guayacan*; purple flowered."

"A small tree, sometimes 30 feet high, with a gnarled and twisted trunk, slender branches, and small, delicate leaves. In February or March the tree comes into flower and is then a mass of lavender purple; it remains in bloom several weeks. The wood is exceedingly hard and is of value for cabinet purposes. The heartwood is a rich brown, while the sapwood is light yellow; both take a fine polish. The tree thrives in a warm climate with little rain."

For previous introduction, see S. P. I. No. 47900.

51408. *ZIZIPHUS* sp. Rhamnaceae.

"*Cerezo*; white flowered."

51409. *PHYLLOCARPUS SEPTENTRIONALIS* Donn-Smith. Cæsalpiniaceae.

"*Flor de mico*; red flowers."

"A magnificent flowering tree found in sandy loam in eastern Guatemala, at 1,500 to 2,000 feet altitude. It is of broad, spreading habit 40 or 50 feet high, with light-green compound leaves. In January and February the tree is a mass of crimson-scarlet flowers, which are borne in small clusters and are each about an inch broad."

For previous introduction, see S. P. I. No. 44775.

A tree of this species is shown in Plate IV.