

52574 to 52580.

From Ambato, Ecuador. Collected by Wilson Popenoe, Agricultural Explorer of the United States Department of Agriculture. Received February 4, 1921. Quoted notes by Mr. Popenoe.

52574. CARICA sp. Papayaceæ.

Babaco.

"(No. 533a. Ambato, Ecuador. January 3, 1921.) Seeds of a rather dwarf species 8 to 10 feet in height, which can probably be grown in the open in southern California. The fruits are about a foot long and nearly seedless; from 17 good specimens only 10 seeds were obtained, and it is rare to find specimens which contain more than 3 seeds. The fruit is like a slender papaya in form and appearance, but has highly aromatic flesh containing much papain. It is not good for eating until cooked, when it yields an excellent sauce with plenty of 'character.' The local name for this fruit is *babaco* and the plant is commonly propagated by cuttings. For cultivation in southern California and for hybridizing with the common papaya, I believe it to be a fruit of genuine merit."

52575. DURANTA TRIACANTHA Juss. Verbenaceæ.

"(No. 536a. Ambato, Ecuador.) *Chivo*. A common indigenous shrub in ravines and on hillsides about Ambato, growing to a height of 15 feet and heavily armed with stiff sharp thorns, for which reason it ought to make an excellent hedge plant. Its pale-blue flowers, borne in clusters 3 or 4 inches long, are followed by golden berries half an inch in diameter. The plant should be sufficiently hardy for cultivation in California and Florida."

52576. FRAGARIA CHILOENSIS (L.) Duchesne. Rosaceæ.

Chilean strawberry.

"(No. 534. Ambato, Ecuador. December 29, 1920.) *Ambato* strawberry. That this plant has been cultivated at Ambato since a remote day is evidenced by the following passage, taken from Velasco, *Historia del Reino de Quito*, 1789: 'The strawberry of Quito, erroneously called *frutilla* (little fruit), since it is as large as two or three European strawberries. It bears every day in the year, and although it is common in several provinces, in no other is it produced in such abundance and perfection as in that of Tungurahua.'

"This remarkable fruit more recently attracted the attention of Robert Spruce, the English naturalist, who wrote (according to the *Florist and Pomologist*, Jan., 1870, p. 24): 'In the equatorial Andes the Province of Ambato is famed for its strawberries, which equal in size and flavor some of our best varieties and are to be seen exposed for sale in the market place of Ambato every day in the year. They are cultivated at an altitude of from 7,000 to 9,500 feet above the sea, where the mean temperature of the year ranges between 59° and 67° F.; but the best are grown a little way out of Ambato, as you go toward Guayaquil, on the slopes of Guachi (lat. 1½° S.) at near 9,000 feet, and in a mean temperature of 60° F.; where, however, the thermometer does sometimes descend, perhaps half a dozen times in the year, to the freezing point in the early morning and scarcely ever on two successive days.'

"It is only in the region of Guachi that this species is commercially cultivated in Ecuador. Distant about 5 miles from Ambato, it lies at an altitude varying from 9,500 to 10,000 feet, and consists of a series of rolling hills, almost devoid of trees and with a soil which can be char-