

## 43485 to 43487—Continued.

43486. "(No. 50. From Santa Maria de Jesus, October 20, 1916.) Avocado No. 4. *Itzamna*. From the garden of an Indian, who refused to divulge his name. The garden is in the center of the village, toward the Volcan de Agua from the central plaza. Santa Maria de Jesus is a small village located upon the upper slopes of the Volcan de Agua, at an elevation of 6,700 feet. It is about 10 kilometers from Antigua. As one climbs up the broad slope of the volcano the character of the vegetation changes considerably, and many of the plants common in the gardens at Antigua are not grown here because of the cold. Among the plants which are conspicuous by their absence are the banana, the orange (and other citrus fruits), and the tender ornamental plants, such as the royal palm. In their stead, the gardens of the Indians are filled with peach trees, chayote vines, granadilla vines (*Passiflora ligularis*), and with vegetables such as peas. The hardy Abyssinian banana is a common ornamental plant. Among the plants of the lower elevations which persist are the cherimoya, the avocado, and the matasano (Casimiroa), though I saw only one tree of the latter. *Grevillea robusta* is one of the commonest ornamental trees. It can thus be seen that the vegetation is not at all tropical in character. The commandant assures me that the thermometer goes below the freezing point, but records are lacking. This avocado has been obtained in the hope that it may prove slightly hardier than those from the lower elevations. In the United States it may succeed in regions which are a trifle too cold for the average Guatemalan variety. It should at least be given a test to determine its hardiness. The fruit is not yet fully grown, so it can not be described. The tree is about 25 feet high and is carrying a fair crop. It has good, large wood and seems to be a stronger grower than some I have seen. The fruits are almost round, tending toward broadly obovoid, and obscurely ribbed. The surface is very light green, almost glossy, with numerous large yellowish dots. The skin is slightly over one-sixteenth of an inch thick. The fruit looks like a good avocado. The season of ripening could not be ascertained, but probably it is not earlier than April."
43487. "(No. 15. San Lucas, Departamento de Sacatepequez, October 22, 1916.) Avocado No. 5. *Batab*. From the garden of an Indian, near the center of the village, to the west of the church. This village is situated on the road between the city of Guatemala and Antigua, at an elevation of 6,850 feet. The principal fruit trees in the gardens of the Indians are peaches, cherimoyas, avocados, quinces, manzanillas (*Crataegus stipulosa*), and pomegranates. There are no bananas here, and I saw only two or three orange trees. The tropical fruits do not succeed at this elevation. This variety, like No. 4 [S. P. I. No. 43486], has been selected because of its possible hardiness. Coming from an elevation about 1,750 feet above Antigua, it may prove to be more frost resistant than varieties from the latter place. It should be given a trial in localities in California and Florida which are slightly too cold for the average variety of this race. The tree is about 20 feet high, with a good crown. According to the owner, it bears over 200 fruits in good seasons, but sometimes the crop is partly de-