

total sugars decreased. No difference could be found in the percentage of reducing sugars in fruit below and above the minimum weight. There was no statistical correlation between the percentage of reducing sugars and the flavor rating of the fruit.

There were few changes in percentage of oil from week to week and no significant difference in the percentage of oil in fruit picked before the beginning picking date and those picked after the beginning picking date for the period in which this study was undertaken. However, it has long been known that as avocado fruit attain greater maturity they increase in percentage of oil (1, 10). Hatton *et al* (6) showed that selecting Florida avocados for a specific percentage of oil was not practical because of the wide variation in percentages of oil in individual fruit at any given time. In this study there was also no significant difference in the oil content of fruit below the minimum fruit weight and above it. The data indicate that there is no statistical correlation between the percentage of oil and flavor rating of Florida avocados during the first few weeks of the harvest season. However, Hodgkin (7) found a direct relation between percentage of oil and flavor of California avocados.

Fruit above the minimum weight in the regulations had a higher flavor rating than those below it, but correlation of weight and flavor has already been shown by Soule and Harding (9).

In all of the tests described, there were no significant differences between soft and hard fruit. Other physical tests are not shown

herein since they agree with previous findings (4, 5, 10).

With data accumulated to date, the present maturity regulations of beginning picking dates and minimum picking weights or diameters are the most satisfactory indices for Florida avocados.

SUMMARY

Samples of 14 varieties of avocados were selected below and above the minimum fruit weight and picking date on the basis of the 1955-56 Florida avocado maturity regulations. Analyses for oil content, reducing sugars, total soluble solids and phenolic compounds showed no appreciable changes for the period in which the samples were studied. The findings indicate that present maturity regulations are still the most satisfactory for Florida avocados.

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A NEW BANANA FOR FLORIDA — MUSA PARADISIACA L.

variety Hadja

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This variety is one of the best bananas in the world. If this variety had the same keeping qualities as the Gross Michel, it could be used for export purposes. In Southeast Asia the Gross Michel is used for children's food,

the radja or so-called apple banana is a fruit everybody cares for, not only as fresh fruit, but also fried. This radja variety of the *Musa Paradisiaca* is also resistant against the Panama disease and Sikatoka.

Whenever local conditions are favorable, this banana can be cultivated in all those places in the sub-tropics, where no long periods of transportation are involved, in other words, where the fruits are used for

local consumption, or on short distance from the place of production. Another advantage is, that this banana is rather resistant to some cold days, as they occur in South Florida.

An acre of this banana, well protected with windbreaks, can produce 300 bunches of six

to seven hands each year. With a wholesale price of two dollars per bunch, an acre can bring in 600 dollars gross or 400 dollars net.

An advantage of the cultivation of this fast producing occupation of land is that *one never* can lose, in case after some years the land must be available for other purposes.

A POSSIBLE COVER CROP FOR FLORIDA — MIMOSA INVISA

variety *Inermis*

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Mimosa invisa is one of the largest producers of green matter among the annual leguminous cover crops in the tropics. In the tobacco area of the East Coast of Sumatra, *Mimosa invisa* is also used in the rotation scheme to restore the fertility of the soil and to get rid of *Pseudomonas solanacearum*, the cause of bacterial wilt of tobacco.

A serious drawback of the specie with thorns was the practical impossibility for laborers to work in fields covered with that legume, regardless of the other outstanding qualities.

In 1942 a thornless plant was found in Java, which did just as well as a cover crop as the species with prickles.

Of this variety writes Dr. H. J. Toxopeus in *Euphytica I* (1952): 130-132,:

“Of many species of plants thorny and thornless varieties are in existence. So it was natural to assume that according to the law of homologous series in variation, formulated by Vavilov in 1922, chances

were that thornless plants of *Mimosa invisa* might be encountered when sought for. I drew this idea to the notice of Mr. A. S. Bolt, now manager of the Tjuring-estate near Kendal in Middle Java. From 1935 on he paid attention to this question and in 1942 he really found a thornless plant. War conditions at that time prevented the propagation of this valuable plant on a large scale. However, to safeguard the material Mr. Bolt cleared the soil around the plant within a radius of 20 meters from the thorny sister plants. In this way he gave the spontaneous seedlings of the thornless plants as great a chance to survive in the course of the coming years as possible. In the beginning of 1948, six years after its discovery, the place where the original plant was found could be visited again for the first time. In the course of years this thornless variety appeared to have maintained itself in the competition with its thorny sister plants.”

The plant seems to do very well in South Florida and might become of importance in the sub-tropical parts of the United States as a collector of free nitrogen and as a ground cover.