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A disease of passion - fruit (*Passiflora edulis f. flavicarpa*)

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THE foliar symptoms of this disease are chlorotic spotting, severe crinkling and curling accompanied sometimes by deformity and premature dropping, Fig. 1. The fruits are spotted or crinkled or both, and in severe cases they may drop prematurely, Fig. 2. The disease does not appear to affect the size or shape of fruits although fruits from diseased vines show a mottle on the pericarp.

The disease first appeared around 1970 in various locations of the Western Province. No evidence of this disease was reported from any other part of the Island.

The cause of the disease appears to be a virus—like transmissible entity which is aggravated by nutritional deficiencies. Application of micronutrients has been shown to reduce the severity of the symptoms observed (Research Officer in Horticulture, communication of January 1971 to Deputy Director, Agriculture Research).

The condition has been transmitted to healthy seedlings by graft inoculation with chips and terminal shoots obtained from diseased vines at Walpita; attempts at transmission with leaf tissue implants were not successful. Plants maintained in the green house following graft inoculation developed symptoms in the new flush within two weeks in all cases where graft union was established but not in controls.

Attempts so far to isolate a virus by sap inoculation of passion seedlings and herbaceous species with extracts prepared from young leaves and floral parts of diseased vines have not been successful nor was the condition transmitted by *Myzus persicae* and *Aphis gossypii* which were investigated as possible vectors.

The effects of the condition on growth and yield have not been yet determined. However, the marketing quality of fruits could be diminished by the crinkle and mottle symptoms produced.



Fig. 1 A.—A healthy leaf.



Fig. 1 B.—Infected leaf showing crinkling
and spotting.

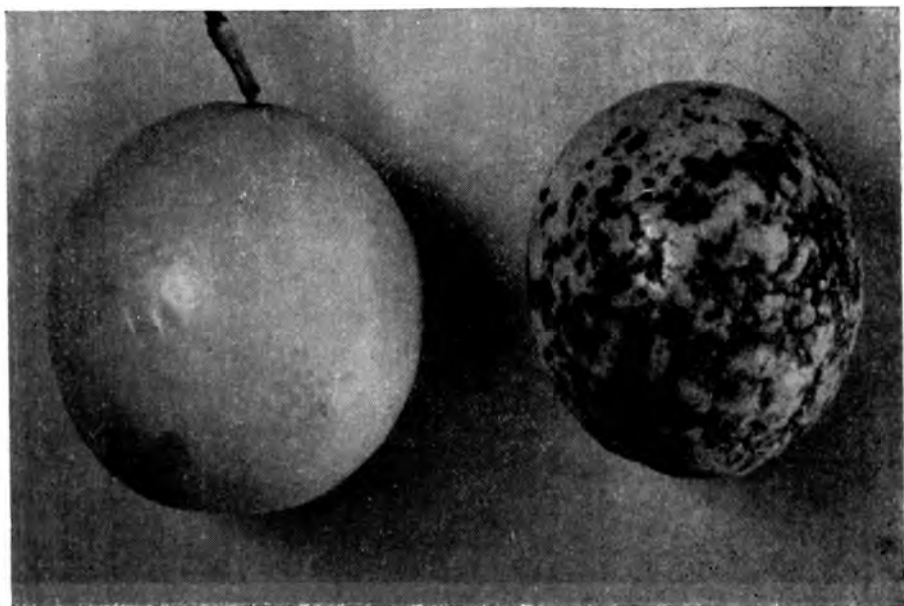


Fig. 2.—A healthy fruit (left) with an infected fruit (right) showing crinkling and spotting