

Short Communication

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VIRUS INFECTION COMMON TO PAPAYA AND TOMATO PLANTS

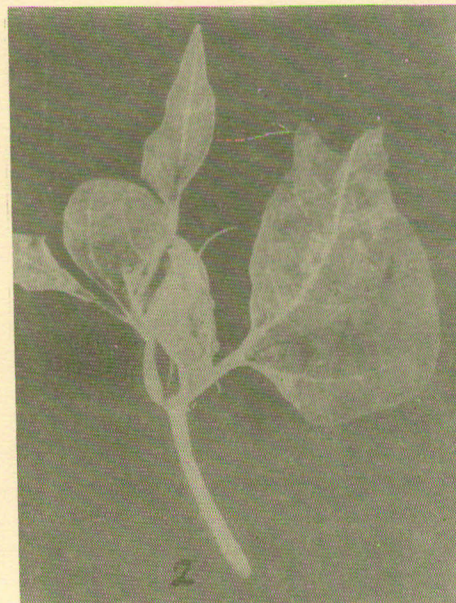
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Whereas any plant disease would interest an economic botanist, this author does not know of any infection that reveals such a wide range of symptoms as does the virus disease of papaya. It has been designated *shredded disease of the papaya tree* [1]. Illustrations were offered to show how the leaf is reduced in size and far more, in appearance, as mere "shreds". Another symptom of the disease shows the leaf, which, in the case of papaya plant, is conspicuously large, would curl to acquire a ball-like appearance; even this phenomenon of the "curled-leaf" has been illustrated [2]. Moreover, the flower would show characteristic deformation and correspondingly the fruit, which was illustrated [3], becomes shaped like a flower with finger-like divisions. Moreover, an abnormal seedless fruit which looking more like a banana than a Papaya fruit, has also been shown [4]. The effect of this virus infection was responsible in one case at least for reversing the sex; a male plant was photographed bearing male flowers but also fruits naturally quite abnormal in shape [ref. 3; Fig. 12]. Thus here we have an infection which affects leaf growth, malformation of fruit and even sex reversal. As far as I know no such disease of plant shows such a wide range of changes.

The same house-garden which had supplied the material reported in the earlier paper now contained a number of small papaya trees. But these were not more than two feet tall and all suffering from the "shredded leaf" disease, preventing their growth from want of foliage. Accidentally a tomato plant was also found growing with a diseased papaya plant, not farther than at one-foot distance. The tomato plant showed typical "Curled leaf" symptoms and was unable to grow erect, but instead grew like a creeper. Other plants also grew at the same spot, mostly sun-flower but no other plant showed any abnormality except the papaya and the tomato. The leaf of each of these two plants is illustrated in Fig. 1-2. The leaves of the tomato plant on the left, no. 1, showed remarkable reduction in size and also curling, giving leaves a concave shape. Papaya leaf. (no. 2) likewise abnormal, has to be indicated as such for it surpasses its natural appearance. It represents the "shreds" of leaves. Fig. 2. represents what was the topmost portion of a papaya plant not more than 2 ft. high, with reduced growth from want of proper foliage. Thus Fig. 1-2 show the effect of the same virus on the foliage of tomato



and papaya plants. (Fig. 1). Tomato leaves infected by a virus showed stunted growth in size and curling giving them a concave appearance. (Fig. 2). Topmost leaves of a papaya plant, showed a "shredded" condition; the plant was not more than two feet high and a foot apart from the tomato plant (no. 1).

REFERENCES

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