

**TRANSMISSION OF CUCUMBER MOSAIC (CUCUMBER VIRUS 9)
FOUND IN PUERTO RICO TO CARICA PAPAYA**

In February 1953, during the course of some experiments carried on in relation to the cucumber mosaic (cucumber virus 9) found in the Island,¹ plants of *Carica papaya*, *Cucumis sativus* var. Black Diamond, and *Phytolacca decandra* were inoculated with juice from a tobacco plant infected with cucumber virus 9. About 2 weeks later one of the inoculated papayas displayed symptoms of vein-clearing and mottling. The inoculated cucumbers showed symptoms characteristic of virus 9 infection and *P. decandra* necrotic spots on the inoculated leaves. Several weeks later the affected papaya began to show symptoms indistinguishable from those produced in that host by the papaya-mosaic virus.² The possibility of establishing the relationship between the viruses attacking two such unrelated hosts

¹ Adsuar, J. and Cruz Miret, A., Virus diseases of cucumbers in Puerto Rico, Tech. Paper No. 6, Agricultural Experiment Station, University of Puerto Rico, 1950.

² Adsuar, J., Studies on virus diseases of papaya (*Carica papaya*) in Puerto Rico, Tech. Paper No. 1, Agricultural Experiment Station, University of Puerto Rico, 1946.

was considered of interest. However, other problems interfered with the study and it was accordingly postponed.

This year we have successfully accomplished the transmission of cucumber virus 9 to papaya. Cucumber seedlings previously inoculated with cucumber virus 9, and showing unmistakable symptoms of mosaic, were macerated, and the extracted juice inoculated into healthy papaya and cucumber plants by rubbing with carborundum. Of various transmission experiments performed only one succeeded. Three out of nine papayas inoculated showed symptoms characteristic of papaya mosaic. All the cucumbers inoculated became diseased. The infected papayas began to manifest preliminary symptoms of vein-clearing and mottling in about 3 weeks, and the characteristic leaf distortion and malformation were noticeable about a month later. So far we have been unable to retransmit the virus from papaya to cucumber. Our experience seems to indicate that the cucumber virus 9 is very difficult to transmit from cucumber to papaya by rubbing the crude juice in with carborundum.

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