

* It was clarified during the discussion on this paper that chilli viruses could not be identified solely on symptomatology but a long series of elaborate tests are necessary for their identification. It was also stated that the common 'yellowing' disease of chillies did not appear to be viral in nature but may be incited by nematodes.

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9. STUDIES ON A VIRUS ISOLATED FROM POTATO

by

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A detailed study of a virus isolated from potato has been made. The virus isolate was both sap transmissible and transmissible by *Myzus persicae* Sulz. which was found to be a very effective vector. Typical symptoms of the diseases were produced within 11 to 12 days of inoculation. Various symptoms produced on chilli and potato variety are described. The virus had a thermal inactivation point of 55° — 60° C., a dilution end point of 1 : 500 — 1 : 750 and a longevity of two days at room temperature *in vitro*. The virus was tentatively identified as Potato virus Y.

The host physiology of virus infected plants using chilli as the test plant has been studied with regard to chlorophyll content, carbohydrate/nitrogen ratio and respiration. A reduction in total chlorophyll, total carbohydrate, total nitrogen and carbohydrate/nitrogen ratio has been observed in the infected leaves.

The change in respiration rates during the inoculation period is discussed.

The possibility of chemotherapy using malachite green and growth regulators have been tested. It was found that there was a delay in the expression of symptoms in treated plants when the compounds were applied just after inoculation. In cases when malachite green was applied after the development of symptom it was seen that there was a reduction in the severity of the symptom in the treated plants.

* It was suggested during the discussion of the paper that a local lesion host should be looked for as this would greatly facilitate investigation on this virus.