

The fruit wall comprises an outer fleshy zone, followed by a viscid zone of two layers, and a parenchymatous zone of 3-5 layers through which runs the vascular supply. There are abundant sclereids in the outermost zone.

Thus, as in the tribe Lorantheae, in *Psittacanthus* also the ovary is 1-celled, placenta is absent, embryo sacs ascend into the style, and fruit is baccate. Besides, the endosperm in this taxon develops like any other member of the Lorantheae. It is hardly justified, therefore, to create a separate subtribe *Psittacanthinae* for this genus.

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PARTICLE SHAPE OF SOUTHERN SANNHEMP MOSAIC VIRUS

SOUTHERN sannhemp mosaic virus has been reported to be a strain of tobacco mosaic virus (TMV) (Capoor, 1962). Also the virus has been shown to have serological relationship with TMV (Anand and Sahambi, 1965). Therefore, purification of this virus was attempted to get a clear picture of the nature of its particles. About 1,000 gm. of sannhemp (*Crotalaria juncea* L.) leaves infected with and showing most prominent symptoms of this virus disease were processed by the chemical method employed in the purification of Bottle-gourd mosaic virus (Anand, 1960), but with slight modification. The virus from the virus precipitate, during the treatment, was eluted by means of 1% sodium sulphite solution instead of distilled water. This helped in preventing the formation of colouring matter during elution of the virus from its precipitate, and thus only one treatment with ammonium sulphate was found sufficient. The virus was further concentrated by precipitating it at pH 4.3. The infectivity of the purified material was confirmed by sap inoculations on *Cyamopsis tetra-*

gonoloba (L.) Taub., which reacted with typical local lesions (Raychaudhuri, Nariani and Das, 1962). The electron micrographs taken with RCA-EMU 2-A electron microscope at the National Physical Laboratory, New Delhi, revealed the virus particles to be rigid rods resembling those of tobacco mosaic virus (Fig. 1). Das Gupta, De and Raychaudhuri



FIG. 1. Sannhemp mosaic virus.

(1951) observed that the other mosaic virus-infecting sannhemp in Delhi is spherical in shape measuring on an average 33 m μ in diameter, while Chenulu has purified a cowpea mosaic virus which infects sannhemp-producing mosaic symptoms, which is also spherical, measuring 19-25 m μ with an average of 23 m μ in diameter.

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