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Class: Deg.-I (Hons.)
Paper: I, Group-‘B’
Topic: Tobacco Mosaic Virus (contd.)
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Structure of Tobacco Mosaic Virus (contd.):

4. Disease Cycle of Tobacco Mosaic Virus:

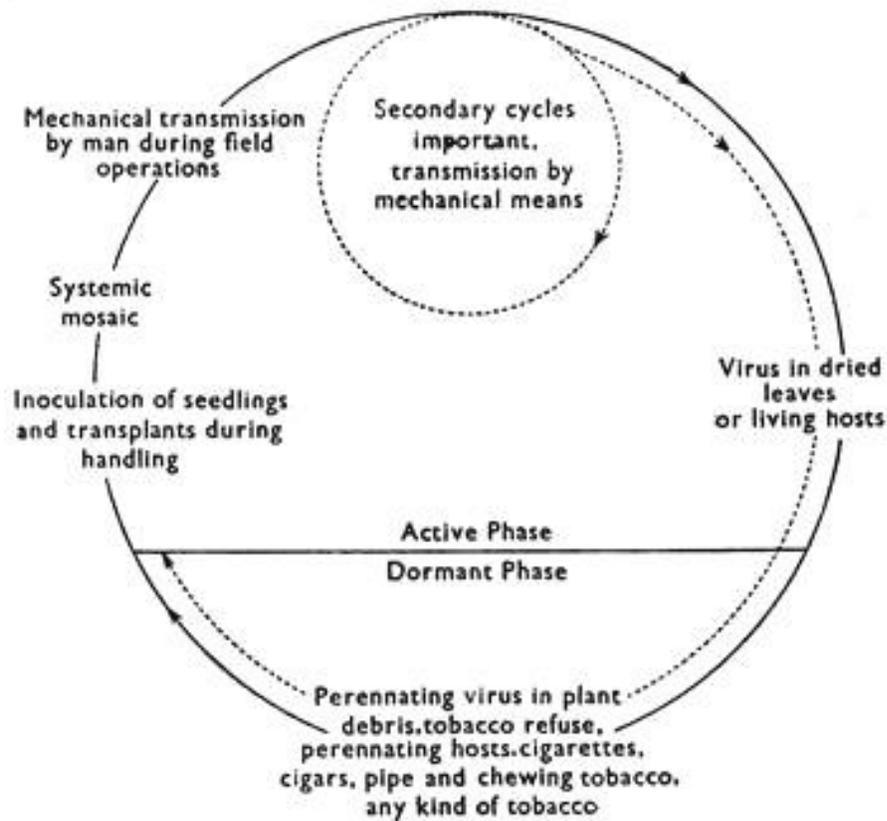


Fig. 394. Disease cycle of Tobacco Mosaic Virus.

The virus perennates in infected tobacco plant debris, tobacco refuse from warehouses, cigarettes, cigars, pipe and chewing tobacco and in perennating hosts which form the source of primary inoculum. This is one of the most infectious of

plant viruses. The virus is disseminated from plant to plant by mechanical transmission, by handling tobacco plants during transplanting; through other field operations; and contact by man and cultivation implements. The virus enters in the host tissues; it multiplies very rapidly producing disease symptoms.

Disease cycle of TMV is presented in the Fig. below:

5. Control of Tobacco Mosaic Virus:

Following are some of the suggested control measures:

- Seed beds should be located at a great distance from the tobacco warehouse.
- Seed beds should be free from any tobacco refuse.
- Seed bed soil should be sterilized by steam.
- Care should be taken to avoid contamination through lands and cultivation implements.
- Since pipe tobacco, cigarettes and chewing tobacco are all source of primary inoculation, smoking or chewing of any kind of tobacco should be avoided.
- Susceptible hosts, weed or otherwise in which virus may harbor, should be destroyed.
- Previous year's plants debris should be destroyed by burning.
- Diseased plants should be removed and burnt to stop further spread of the disease.
- Growing resistant varieties produces good results.