

Sastry, Chapter 10

Broadbent L (1963) The epidemiology of tomato mosaic. III cleaning virus from hands and tools. *Ann Appl Biol* 52:225–232

Broadbent L (1964) The epidemiology of tomato mosaic. VII. The effect of TMV on tomato fruit yield and quality under glass. *Ann Appl Biol* 54:209–224

Broadbent L (1965) The epidemiology of tomato mosaic. XI. Seed-transmission of TMV. *Ann Appl Biol* 56:177–205

treated (Miller et al. 1986). Disinfection of mechanically transmitted *Potato spindle tuber viroid* from knives and other equipments could be achieved by soaking in sodium hypochlorite solution at 2–3% concentration (Singh et al. 1989).

Singh RP, Boucher A, Somerville TH (1989) Evaluation of chemicals for disinfection of laboratory equipment exposed to potato spindle tuber viroid. *Am Potato J* 66:239–245

certain chemicals or by mechanical means. TMV infection in tomato seeds was greatly reduced by treatment of the pulp with one quarter of its volume of concentrated HCl for 30 min, followed by washing and drying of the seeds (Howles 1957; Crowley 1958; Broadbent 1965; McGuire et al. 1979). Even soaking the extracted seed in 10% solution of teepol for 2 h or soaking in a 10% solution of trisodium orthophosphate or 10% sodium carbonate solution helps in freeing the seed from TMV contamination (Alexander 1960; Nitzany 1960; Broadbent 1965; McGuire et al. 1979). Cordoba-Selles et al. (2007) have

Gooding (1975) successfully eliminated the TMV by treatment of tomato seed with trisodium orthophosphate and sodium hypochlorite. The treatment comprised of soaking infected tomato seed in 1% aqueous solution of trisodium orthophosphate for 15 min and in 0.52% sodium hypochlorite for 30 min. The treated seed did not lose viability. Even treating the seed of the *Capsicum* spp. infected with TMV, with 9% calcium chloride or 10% trisodium phosphate (Na_3PO_4) gave good virus elimination (Betti et al. 1983). In the Netherlands, it was observed that

Vovk (1961) reported disinfection of TMV by exposing infected tomato seeds at 50–52°C for 2 days followed by 1 day at 78–80°C. However, Howles (1961) could not eliminate TMV completely when infected seeds were subjected to 72°C for 22 days, but further work has shown that most of the seeds can be freed from TMV during 1–3 days treatment at 70°C and LMV in lettuce seed by treatment with hot air maintained at 80°C for 3 days without loss of seed viability. LMV was also inactivated by dry air treatment for 80–120 days at 55°C (Kristensen 1970). Ear-

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