SEED-BORNE CUCUMBER MOSAIC VIRUS IN NEW ZEALAND LENTIL CROPS

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Cucumber mosaic virus (CMV) has been detected in lentil seed grown in New Zealand. In 1994 experimental plots of the cv. 'Rajah' inoculated with CMV yielded 15% less mean field weight of seed than controls. In 1995 losses were similar for 'Rajah' and 'Titore', but after dressing, losses increased to 17 and 19% respectively. Plant numbers were similarly reduced by CMV infection, 18% in 'Rajah' and 7% in 'Titore'. Thousand seed weight was not significantly affected by infection. Other observations on the effects of CMV infection in lentil are also discussed. Surveys of commercial lentil seed lines detected CMV incidences of up to 2.5%, experimental seed transmission in glasshouse experiments failed to replicate this level of infection. In a field experiment in 1996, using four levels of seed-borne CMV (0, 0.5%, 1%, 2%), mean seed-borne incidences of between 1.5% and 6% were recorded.

PATHOGENICITY OF TWO PLANT PATHOGENS *PHOMA* SP. AND *VERTICILLIUM DAHLIAE* ON CALIFORNIAN THISTLE

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Two fungal pathogens isolated from diseased Californian thistle plants were investigated as possible microbial control agents against Californian thistle. The first of these, a *Phoma* sp. was found to be a weak leaf spot pathogen with little potential as an effective control agent. Isolates of the second pathogen, *Verticillium dahliae* Kleb., were shown to systemically infect inoculated roots and kill both thistle seedlings and plants. Although this root pathogen was not host specific, some degree of specialisation was evident and this fungus could be investigated further as a potential biological control agent.