

Summary

**THE ROLE OF ALTERNATIVE HOSTS IN
OVERWINTERING OF *PHYTOPHTHORA DRECHSLERI***

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Crown rot of cucurbits caused by *phytophthora drechsleri* causes a severe loss of yield in infected fields. This sometimes promotes the farmers to cultivate alternative crops. The pathogenicity of *P. drechsleri* obtained from infected tissues of cantaloup was examined. Apart from hosts already been reported soyabean and bean were determined as the cultivated hosts and *Amaranthus retroflexus*, L. *Chenopodium album*, L. *Portulaca oleracea* L. and *Solanum nigrum* L. as the weed hosts to the pathogen and showed a marked response to the *in vitro* infection. Formation of chlamydospores and oospores was also studied in both cultivated and weed host stem tissues. The fungus is capable of reproduction within the invaded tissue and this enables the pathogen to produce dormant spores amounting up to 7.3×10^6 g. f. w. Possession of dormant structure would enable the fungus to persist in soil, while awaiting for invading a host, after the disintegration of the host tissue. Therefore, rotation with non-susceptible crops would be of little value in reducing density of *p. drechsleri* or in avoiding crown rot of cucurbits in future crops, as it would be virtually impossible to get rid of weed hosts. As a consequence there remains a 4 - 5 year fallow followed by sanitation precautions, implementation of a well - organized furrow system of irrigation, and a comprehensive weed control the most sensible and to the point measures to control the pathogen .

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