

EFFICACY OF *BRASSICA* SEED MEAL FOR MANAGEMENT OF *PYTHIUM* ROOT ROT IN GREENHOUSE-GROWN VEGETABLES

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ABSTRACT

Brassica seed meal (BSM) is the byproduct of oil extraction from the seeds of brassicaceous plants. Research has shown BSM to be effective in suppressing many plant pathogens and weeds but there are minimal studies investigating BSM for use in the commercial greenhouse industry. Research was conducted to investigate the capacity for BSM to control *Pythium* root rot. BSM was biocidal to *Pythium aphanidermatum* in an *in vitro* lab setting and suppressed the pathogen's infection of tomato and cucumber seedlings in a greenhouse setting. However, phytotoxic effects were observed and further investigated. Seed meal application rates up to 0.4% (by volume) did not decrease germination percentage or delay emergence. When a one-day planting delay was employed, germination was not reduced or delayed at seed meal rates up to 2.4%. Increasing the duration of the delay up to seven days did not yield any added benefits. However, cucumber transplants showed increased sensitivity to BSM and were damaged at lower rates.