Abstract

Despite the growing interest in the use compost tea as an eco-friendly disease management strategy, few studies have been done to test their efficacy against economically important soil borne pathogens such as *Pythium ultimum*. The objective of this study was to evaluate the effect of aerated and non-aerated grass clippings compost teas against *Pythium ultimum* using *in vitro* and *in vivo* experiments. Results of *in vitro* study showed that both aerated and non-aerated significantly inhibited the mycelial growth of *P. ultimum*, with aerated compost tea brewed for 18 hrs (ACT18) having the highest inhibitive effect (160%) ($P<0.05$). Disease incidence and severity were lowest in ACT36-PRO-MIX® treatment with other ACT36 GC-PRO-MIX® treatments inducing damping-off. Mycelial growth inhibition (GI) generally decreased with sterilization of aerated compost teas and disease incidence and severity increased. Total plate counts of bacteria of ACT were found to be positively related to GI ($P < 0.05$) with pH of non-aerated compost teas (NACT) being positively related to GI. Disease incidence and severity increased with the application of NACT with no significant effect being observed with sterilization. Results of this study suggest that aerated compost teas may be a viable option which can be used in the lucrative vegetable seedling production industry for managing damping-off.

Keys words: compost tea, damping-off, *Pythium ultimum* growth inhibition, disease incidence, disease severity