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Evaluation of various aqua suspension formulations of *Metarhizium anisopliae* (Metschnikoff) Sorokin

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ABSTRACT

Studies on evaluation of eleven aqua suspension formulations of entomopathogenic fungus, *Metarhizium aniosopliae* comprising 1) *M.a.*+ TW(0.5%) + CMC (0.5%) 2) *M.a.*+SFO(1.0%) + CMC(0.5%),3) *M.a.*+ SFO(1.0%)+HO(1.0%) 4) *M.a.*+ GNO(0.5%) + BA (2.0%),5) *M.a.*+ GNO(0.5%) + CMC(0.5%),6) *M.a.*+ GNO (0.5 %) + GH (0.5%), 7) *M.a.*+ GH (0.5%)+HO (1.0%), 8) Control (*M.a.*alone) were carried out. At 3 DAI, AS formulation with *M.a.*+GNO(0.5%)+CMC (0.5%) registered significantly highest (88.33%) surface coverage. The next promising formulations were *M.a.*+ SFO(1.0%) + CMC (0.5%) (78.33%), *M.a.*+ GNO (0.5%)+GH(0.5%) (56.67%) and *M.a.* + GH (0.5%) + HO (1.0%) (51.67%). Least (8.33%) growth of the fungus was recorded in *M.a.*+TW (0.5%)+CMC(0.5%); when, control recorded 30.0 per cent surface coverage. On 10 DAI, the differences (6.67 to 11.43g) for biomass production were significant. *M.a.* + SFO (1.0%)+CMC (0.5%) maintained its superiority over rest of the formulations by producing 11.43g biomass. However, it was at par with *M.a.*+SFO(1.0%)+HO(1.0) (11.10g). Maximum cfu count was observed in *M.a.*+SFO (1.0%)+ HO (1.0%) ($2.33x10^9$). However, it was at par with *M.a.*+SFO (1.0%) + CMC (0.5%) ($2.27x10^9$). The least (30.0%, 6.67g and $17.672x10^8$ cfu/ml) surface coverage biomass and cfu count were recorded in control *i.e.* the formulation (*M.a.*alone), respectively. In case of bioefficacy of various formulations against larvae of *Spodoptera litura*, the formulation with *M.a.*+ SFO (1.0%) + HO(1.0%) registered significantly highest mortality of 80.00 and 73.33 per cent of II and III instar larvae of *S.litura.*

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