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Potential of Selected Plants as Ipm Components Against *Leptocybe Invasa*

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Abstract

This study was done to evaluate three herbaceous plants (*Leonotis nepetifolia*, *Schkuria pinnata* and *Tagetes erecta*) for their use in cultural control of *Leptocybe invasa* Fisher & La Salle (Hymenoptera: Eulophidae), a gall wasp that attacks eucalypts in western Kenya. Fifty cages were set in a completely randomised design within a greenhouse with each cage enclosing potted healthy *E. saligna* seedlings either with each one of the test plants or alone. The caged seedlings were infested with *L. invasa* insects then the set up was monitored for five months. Height (Ht) and root collar diameter (RCD) growth of *E. saligna* were measured weekly for five months while number of galls on leaf mid-rib, petioles and stems of the seedlings were recorded for three months from the onset of gall induction. Data were subjected to ANOVA and means separated by LSD using STATGRAPHICS Plus. Mean number of galls on leaf mid-rib, petioles and twigs were, respectively: enclosed alone, 11 ± 1 , 5 ± 1 , 3 ± 0.5 ($p < 0.05$); enclosed with *L. nepetifolia*, 10 ± 1 , 4 ± 0.5 and 2 ± 0.4 ($p < 0.05$); enclosed with *S. pinnata*, 7 ± 0.4 , 3 ± 0.3 and 2 ± 0.5 ($p < 0.05$); and enclosed with *T. erecta*, 4 ± 0.3 , 2 ± 0.2 and 2 ± 0.1 ($p < 0.05$). The respective mean height (Ht) and root collar diameter (RCD) growth of *E. saligna* seedlings after week twenty (20) were: *E. saligna* with *L. nepetifolia* (Ht: 126 ± 4 ; RCD: 2.7 ± 0.1); *E. saligna* with *S. pinnata* (Ht: 124 ± 1 ; RCD: 4.3 ± 0.1); *E. saligna* with *T. erecta* (Ht: 56 ± 2 ; RCD: 3.7 ± 0); *E. saligna* that were enclosed alone (Ht: 85 ± 2 ; RCD: 26 ± 0); and control *E. saligna* seedlings (Ht: 140 ± 1 ; RCD: 5.0 ± 0.1). Pest control by each of the plants was as follows: *T. erecta* (58%); *S. pinnata* (37%); and *L. nepetifolia* (16%). Recommendations on control of *L. invasa* have been made.

Keywords: *Leonotis nepetifolia*, *Leptocybe invasa*, *Schkuria pinnata*, *Tagetes erecta*