green foxtail (4-leaf stage) at 200 L/ha either alone or as a tank-mix. The fungus alone had little effect due to sub-optimal environmental conditions, while the herbicide reduced the fresh weight by approximately 34% when compared to the control. The tank mix of fungus and herbicide, however, resulted in significantly higher disease and approximately 55% fresh weight reduction.


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Wick wiping of herbicides in summer to kill flowering ragwort and reduce seed production is the current recommendation for the integration of herbicide use and biological control using the ragwort flea beetle, *Longitarsus flavicornis*, in Tasmania, Australia. Rosettes are undamaged by wick wiping and this enables *L. flavicornis* survival. This recommendation has always been based on the assumed negative impact of boom sprayed herbicides on *L. flavicornis* without the availability of supporting data. Vacuum collections at a site at Franklin, Tasmania, showed that over 80% of adult *L. flavicornis* occurred on rosette rather than bolting ragwort plants. Glasshouse choice trials of *L. flavicornis* oviposition behaviour showed that over 95% of eggs were laid around ragwort rosettes rather than flowering plants. These results now provide supporting evidence for the validity of the current integrated control strategy for ragwort. Reasons for the habitat preference by *L. flavicornis* of rosettes over flowering plants, and the implications for the survival and increase of this biological control agent, are discussed.

**Evaluation of *Dactylaria higginsii* as a component in an integrated approach to pest management**

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Control of purple and yellow nutseed (*Cyperus rotundus* and *C. esculentus*) continues to be ranked as one of the greatest problems facing growers in the southern United States. As mandated reductions of the use of methyl bromide are implemented, the area over which nutseed is considered a major production limitation increases. The competitive ability of nutseed is significantly decreased with the application of the fungus *Dactylaria higginsii*. A field experiment was designed to use the fungus as a component in an integrated approach to pest management as an alternative to methyl bromide fumigation. A tomato production system utilizing multiple treatment combinations was conducted using fallow season treatment as the main plot and production practice as the sub-plot treatment. Fallow season treatments of *D. higginsii*, glyphosate, and disk fallow were implemented from June to August 2001, and a fall tomato crop was produced in the following season. Significant disease incidence was seen in the fungus-treated plots and no significant difference was found in tomato yield or nutseed (*Cyperus* spp.) density in the following production season. There was no statistical difference in tomato