

Biology of feathertop Rhodes grass (*Chloris virgata*)

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Summary Feathertop Rhodes (FTR) grass is the most difficult to control grass weed species in summer crops and fallows. Its initial infestation was along roadsides, which has now entered cropping fields. This weed costs >AUD 7 million per year to the grain growers in the northern region of Australia. FTR grass has been observed in recent years to grow during the winter season. Several populations have evolved resistance to glyphosate in summer fallows and glyphosate-tolerant cotton systems. If the incidence of FTR grass populations with extended seasons of growth continues to increase, this could become a great concern for winter cropping systems. These observations suggest that there is a need to develop sustainable

and effective management programs for FTR grass in different crops and seasons. However, to develop such programs, there is a need to better understand the biology of this weed. A series of trials are in progress at the Gatton farm of the University of Queensland to understand its biology. Results of the following trials will be discussed: the effect of the frequency of mowing, planting time (in relation to temperatures) and wheat planting density on growth and seed production of FTR grass. In addition, information on the morphology and seed production of glyphosate-resistant and glyphosate-susceptible populations of FTR grass will also be discussed.

Keywords FTR, mowing, resistance, seasonality expansion, planting time