

DOWN TO EARTH 1377 (21.5.09)

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DEFEATING FLEABANE; A DIFFICULT FALLOW WEED

Flax-leaf fleabane seedlings. Early identification and control is important if successful control of one of the nation's worst fallow weeds is to be controlled successfully.



Flax-leaf fleabane (*Conyza bonariensis*) is one of the most troublesome fallow and summer crop weeds largely because of its common tolerance to glyphosate. However research conducted in Qld as well as NSW has identified ways to reduce it, even though there remains no simple single control strategy.

Fleabane is an annual that germinates predominantly in autumn and spring but can also germinate in mild winter and summer conditions. It is more common in zero till farming where glyphosate is the standard fallow weed control option. Fleabane germinates in autumn or spring within a winter crop and if not controlled in-crop emerges as a difficult to control fallow weed.

If conditions are mild (it germinates when soil temperatures are between 10 – 25°C with optimum around 20°C) germination can occur during the summer fallow. As plants age (even if they remain small) they become more difficult to kill.

Researchers like NSW DPI Tamworth based Tonk Cook and Qld Primary Industries Michael Widderick have identified herbicide options that better control fleabane but advocate attacking the weed from as many angles as possible. Much of their research has been assisted with GRDC funding.

For example options include herbicide spray within a winter crop, growing the most competitive winter crop, timely summer fallow herbicide treatment, including appropriate mixtures and “double-knock” spray strategies.

Herbicide choices depend on factors like residual plant back period sometimes being reasonably long (depending on future crop choice) and risk of drift to adjoining crops (especially relevant to cotton areas and some rotational crops).

Tony Cook's research for example showed several treatments have proven promising in winter cereals including Lontrel 150mL/ha + MCPA LVE 625mL/ha, Dicamba 200 0.7L/ha + metsulfuron 5g/ha, Hotshot 750mL/ha + metsulfuron 5g/ha, Tordon 242 1L/ha, 2,4-D 625 amine 1.7L/ha, Starane 500mL/ha + metsulfuron 5g/ha, Dicamba 200 700mL/ha, and Hotshot 750mL/ha + MCPA LVE 625mL/ha. Choice will depend on the weed spectrum as well as factors like nearby crops and plant back.

Qld DPI research found barley to be far more competitive against weeds like fleabane than wheat. Cereal sown in narrow rows (25cm) was far more competitive than wide rows (50cm). Higher plant density was better than moderate or low density.

Fleabane coming out of a winter fallow or from under a winter crop (older plants) generally proves harder to kill than newly germinating spring or summer ones. The researchers stress that whatever the herbicide used treat while weeds are young and soil moisture is good for an increased likelihood of successful control.

Glyphosate plus Surpass (all at robust rates) or dicamba were generally more effective in summer fallows than straight glyphosate. "Double-knock" involving options such as Sprayseed or Gramoxone applied 4 -7 days after the Glyphosate treatment is strongly advocated. Atrazine has an important role in summer crops like sorghum.

More details are available from recent GRDC update proceeding or on the GRDC web site. The northern Weeds Ute guide is valuable for seedling/plant identification.