

Pre-emergence herbicides

Introduction

The table below lists the herbicide active ingredients that are currently available for pre-emergence use in sugar beet as either straights or in mixtures. Use of a pre-emergence treatment helps to provide flexibility with following post-emergence treatments which can be particularly useful when sprayer capacity is limited. A pre-emergence treatment should also be considered where high levels of both grass and/or broad-leaved weeds are expected.

For optimum activity apply pre-emergence treatments to moist fine, clod free seedbeds. Rainfall following application will also maintain activity. More information on pre-emergence treatments is available in the [Weed Control Fact File](#).

Herbicide active ingredients approved for use pre-emergence of the sugar beet crop

Active (s)	Example products	MOA* (HRAC Group)	Comments
clomazone	Mohawk CS	Inhibition of enzyme 1-deoxy-D-xylulose-5-phosphate synthase (HRAC Group 13)	Pre-emergence only. Do not use on sands or very light soils.
ethofumesate	Efeckt, Ethosat 500	Inhibition of lipid synthesis (HRAC Group 15)	Main active for black-grass control at pre-emergence timing. The maximum total dose must not exceed 1.0 kg of ethofumesate per hectare in any three-year period. All 'straight' products contain 500 g ai/l but individual product labels vary regarding individual doses and timings.
metamitron	Bettix Flo, Goltix 70SC	Inhibition of photosynthesis at photosystem II (HRAC Group 5)	Useful partner for ethofumesate at pre-emergence timing, some effect on black-grass but will widen the spectrum of broad-leaved weeds controlled, eg fat-hen.
ethofumesate + metamitron	Oblix MT, Torero, Volcano	(15) (5)	Alternative option to applying these two actives as straights.
metamitron + quinmerac	Goltix Titan	(5) Mimics plant growth hormone indole-3-acetic acid (HRAC Group 4)	Quinmerac is only available in a formulated mix with metamitron for use at the pre-emergence timing. Useful where resistant poppies, and umbelliferous weeds are expected eg fool's parsley.

*Mode of Action