

# Controlling volunteer OSR in sugar beet

Unwanted OSR plants can reduce beet yields by 11%. United Phosphorus has been undertaking trials to determine how best to tackle the problem

Increasingly OSR volunteers tend to be one of the more prolific broadleaved weeds found in sugar beet as the two crops are frequently grown in the same rotation. At all of the United Phosphorus Ltd (UPL) sugar beet herbicide trials sites in 2013 volunteer OSR put in an appearance and was particularly prevalent at the site in Suffolk (see right). At this site in untreated plots at the end of the season numbers had reached 19 plants/m<sup>2</sup>.

## SWEDISH RESULTS

In experiments in Sweden it was reported that one oilseed rape plant/m<sup>2</sup> could result in the loss of 500kg per hectare of sugar. Another figure frequently quoted by the BBRO is 'one tall weed/m<sup>2</sup> can reduce yields by 11%'.

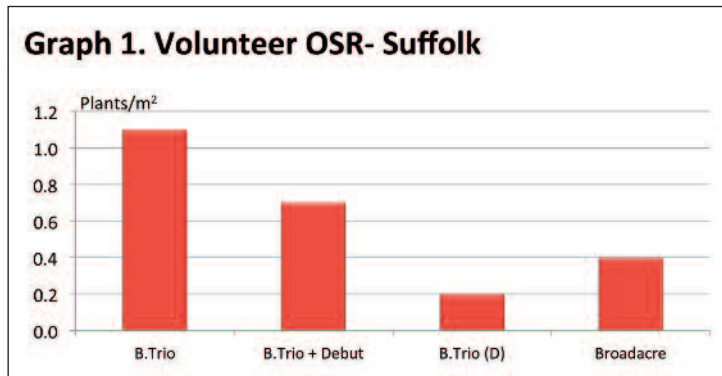
In recent years we have become quite adept at controlling volun-

teer OSR, the inclusion of the active triflusaluron-methyl, as in Debut and Safari Lite WSG, proving particularly effective. One of the annoying features with volunteer OSR can be its prolonged emergence pattern, with the first cotyledons emerging at the same time as the sugar beet crop and further flushes popping through just after the sprayer has been packed away. So is it time to review how we control this 'weed', especially if it is the main weed species present and we have gappy crops late in the season?

Graph 1 (below) shows the results from four different programmes on the control of volunteer OSR, and Table 1 (below) shows the rates and timings of products used. There is no significant difference between the results but there are some interesting points to note.



Untreated OSR at Suffolk site



## KEY FINDINGS

The inclusion of triflusaluron-methyl in a programme was not essential to give good control of volunteer OSR. This could be useful if the volunteers were Clearfield OSR. The best results were from a delayed programme of Betasana Trio. Using the delayed approach meant that late-germinating OSR were controlled but the programme was also effective on the early emerged OSR which were getting big at the time of spraying (see below right). There was also no requirement for a fourth spray.

The two-spray Broadacre approach meant that a pass with the sprayer was saved, which

impacts positively on labour costs. The three-spray conventional Betasana Trio programme resulted in just over 1 plant/m<sup>2</sup> of OSR being left; in a 'gappy' crop a further spray would have been required.

## CONCLUSIONS

There are a number of ways to control volunteer OSR in sugar beet and the programme selected will vary according to other weeds present, crop establishment, weather conditions and labour availability.

Further information and in-season trials can be found at [www.uplsugarbeet.co.uk](http://www.uplsugarbeet.co.uk)

TABLE 1. RATES AND TIMINGS			
Programme	Products	Rate/ha	Application date
Betasana Trio	Betasana Trio + Bettix Flo	1.5 + 0.75	1st May
	Betasana Trio + Venzar + Oil	2.0 + 0.4	16th May
	Betasana Trio + Bettix Flo + Oil	2.5 + 1.0	25th May
Betasana Trio Delayed	Betasana Trio + Bettix Flo + Oil	1.75 + 0.75	16th May
	Betasana Trio + Venzar + Oil	2.0 + 0.4	25th May
	Betasana Trio + Bettix Flo + Oil	2.5 + 1.0	16th June
Betasana Trio + Debut	Betasana Trio + Bettix Flo	1.5 + 0.75	1st May
	Betasana Trio + Venzar + Debut + Oil	2.0 + 0.4 + 15g	16th May
	Betasana Trio + Bettix Flo + Debut + Oil	2.5 + 1.0 + 15g	25th May
Broadacre	Beetup Compact SC + Ethofol 500 + Venzar + Bettix Flo + Debut + Oil	2.0 + 0.4 + 0.4 + 0.5 + 20g	16th May
	Beetup Compact SC + Ethofol 500 + Venzar + Bettix Flo + Debut + Oil	2.0 + 0.4 + 0.4 + 0.5 + 30g	25th May



Early emerged OSR after spraying