

UPL ABLW Trials Suffolk 2015

Table 1 Details of sugar beet trials 2015

Location	Trial objective	Drilling date	Crop growth stage	T1	T2	T3
Mendlesham, Suffolk	ABLW's	23.03.15 (Hornet)	6 to 8 true leaves	16.04.15	01.05.15	TBC
Yaxley, Suffolk	ABLW's	15.03.15 (Haydn)	6 to 8 true leaves	14.04.15	01.05.15	TBC

A warm day today (Sunday), but it has been a mixed time for sugar beet growth and weed control here in Suffolk in recent days. Crop establishment has generally been good at both the Yaxley and Mendlesham trials sites with the crop now at 6 to 8 true leaves (Photo 1). There was a slight concern last week as we were losing a few plants due to pest damage, the entomologist blaming slugs and the agronomist leather jackets. However establishment is acceptable and Photo 2 shows a local farmer using the BBRO method of checking the crop – it looks better this way apparently!

As mentioned in previous updates cleavers are the dominant weed at the Mendlesham site, with counts ranging from 13 to 46 cleavers/m² so we are hopeful of some good statistics, photo 3 shows cleavers in one of the untreated plots. It will be a good test for some of UPL's new formulated products, which appear to be working well. Dewar Crop Protection has carried out initial weed assessments and control of cleavers from the 16 treatments in the trial range from 33 to 78% on 1 May and on 8 May from 16 to 92%. Key observations are:

- Broadacre Programmes are struggling; some of the cleavers were well past the 1st whorl stage when first sprays were applied and cleavers were quite 'blue' due to the cool conditions.
- Ethofumesate as expected is a key active and where amounts applied were low, then control is not quite as good. Betasana Trio and Sniper are performing better than Betanal maxxPro in early assessments. These three products contain 115, 200 and 75g of ethofumesate/litre respectively.
- The benefit of adding an adjuvant oil has been clear, the two Betasana Trio treatments identical apart from the inclusion, or not, of oil demonstrates this.
- No surprises in that treatments containing triflurosulfuron-methyl show it has been beneficial.

If you are struggling with controlling cleavers then make sure that triflurosulfuron-methyl, ethofumesate and adjuvant oils are included in the spray programme, and keep rates robust. At least 200 g ai/ha of ethofumesate and 15 g/ha of triflurosulfuron methyl appear to be performing the best at the Mendlesham site. (Photos 4 and 5). See Technical Update 2 for further notes on cleaver control.

Suggested Treatment when beet are 2 true leaves plus:

BETASANA TRIO 2.0 to 2.5 l/ha + Debut 30g/ha + Oil



Photo 1: Sugar beet Mendlesham



Photo 2: Assessing crop emergence at Mendlesham



Photo 3: Untreated cleavers



Photo 4: Dying cleaver



Photo 5: Dying cleaver

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Crop Vigour

Crop vigour counts were carried out on 1 May and 8 May using a scale of 0 to 10 where 10 means crop healthy and happy and 0 would be dead. Fortunately no scores of 0! On the first assessment it was interesting to see that scores ranged from 3.8 to 6.3 at the Mendlesham site (Graph 1). Note on 1 May the Broadacre treatments had not been sprayed.

On the second assessment scores ranged from 7.0 to 5.5. On both assessments Betasana Trio programmes affected crop vigour less than other formulated products, even when triflurosulfuron-methyl was included. In situations where crops are under stress or emergence is uneven then choice of products and formulations can have an impact on crop vigour. At the time of the second assessment it was 7 days after the T2 spray for most plots and 7 days after the first spray for the Broadacre treatments. Interestingly very little impact on crop vigour from the Broadacre programmes which would have been due to the cool and cloudy conditions at the time of spraying (Table 1.) Remember if using the Broadacre approach to not spray when cloud cover is 0%, Relative Humidity (RH) very high and temperatures above 21°C, in those conditions spray in the evening. Generally the differences between treatments on the effects of crop vigour become less easy to see after 10 to 14 days.

Graph 1. Vigour scores for selected treatments at the Mendlesham trials site

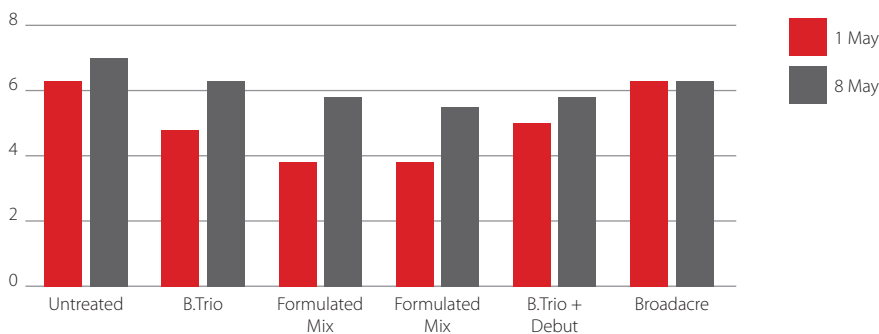


Table 2. Weather at spraying at Mendlesham

	% Cloud	% RH	°C
16.04.15	15	40	18
01.05.15	100	52	12

Remember weather conditions at the time of spraying can have a big impact on weed control and also beet health. Be wary of using high rates, lots of actives and oils when beet are growing rapidly, it can sometimes be more dangerous than earlier sprays on smaller beet – if necessary switch to evening or early morning spraying.

Black-grass control

Depending on location and weather conditions black-grass emergence has been variable, some agronomists have already followed up pre-emergence herbicides with a graminicide and then applied the first Broadacre type programme to start the control of broad-leaved weeds. Remember that early control of high populations of black-grass with a graminicide will give much better control than later applications and that tank mixing is not recommended.

Fat-hen (*Chenopodium album*)



Photo 6: Fat-hen

Diagnostic features of seedlings

- Cotyledons and first leaves are mealy/silvery colour
- Can easily be confused at early growth stages with Orache
- Fat-hen has broader stalks to the cotyledons compared to Orache (Diagrams 1 and 2)
- Cotyledons of Fat-hen tend to be purplish on the underside where as Orache cotyledons are green beneath.

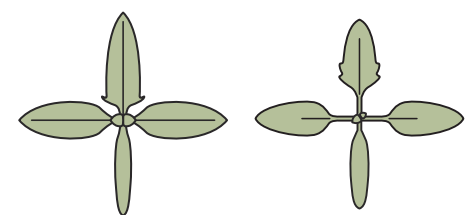


Diagram 1: Orache, young seedling

Diagram 2: Fat-hen, young seedling

Yield effect	Key actives	Comments	Suggested products*
Yields can be reduced by 11% or more by just one tall weed e.g. Fat-hen for each 1m ² of crop**	metamitron phenmedipham desmedipham	Important to include metamitron for residual effect to catch late germinating fat-hen	Betasana Trio + Bettix Flo +/- Oil Beetup Compact + Bettix Flo +/- Oil

*Based on UPL products. **BBRO – Sugar beet reference book 2015.

Note if orache is present than it is important to include ethofumesate in the spray programme, this is present in Betasana Trio, but you may wish to add Ethofol 500SC if using a Beetup Compact programme.

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Update on Broadacre Programmes

The Broadacre programme at the Mendlesham site appears to be struggling a little with cleaver control as mentioned earlier. The second Broadacre spray will be applied in around 14 days time. At the Yaxley site good results are being seen from this approach with some very satisfying 'deaths' of large black-bindweed (Photos 7 and 8). Following the recent rains there has been a new flush of black-bindweed; these are at the cotyledon stage and will be caught by the second Broadacre spray. Photo 9.



Photo 7: Black-bindweed dying!



Photo 8: Another black-bindweed dying!



Photo 9: Black-bindweed newly emerged

UPL Trials Visits

The trials sites are now starting to look interesting with differences being seen between treatments, if you are interested in visiting the site then please contact Pam Chambers via email, pam.chambers@uniphos.com or on 07809 227 583

Key points of interest

- Comparison of formulated products
- 2 v 3 and 4 spray programmes
- Broadacre programmes
- The use of adjuvants
- Weed identification
- Delayed v conventional spray timings

BASIS points for the technical information provided by Sugar Beet Technical Update are CP/37161/1415/g (2 CPD). To claim please e-mail robert@basis-reg.co.uk.

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