

Sugar Beet

Technical Update 03

10 May 2016

UPL ABLW Trials – Suffolk 2016

Table 1 provides an update on spraying at the UPL Europe Ltd (UPL) sugar beet herbicide trials for 2016. At Yaxley, the second post emergence spray has been applied to most of the plots. Two treatments, the 'Broadacre' and 'Delayed Programme' have yet to receive herbicides, these will be applied early this week. The decision was taken to delay spraying the 'Broadacre' two-spray hard hit programme as the sugar beet were still looking rather sorry for themselves and the first true leaves were only just at 1cm. At the Mendlesham site the T2 spray will be applied this coming week to the majority of the plots, quite close to the first T1, but weeds are growing away with the recent warm weather, in particular persicaria which needs to be kept on top of. More on this weed next week.

Table 1. Details of sugar beet trials 2016 - Suffolk

Location	Trial objective	Drilling date	Crop growth stage	Pre-em	T1	T2
Mendlesham	ABLWs	28.03.16	First true leaves	–	30.04.16	
Yaxley	ABLWs	22.03.16	First true leaves	–	13.04.16	05.05.16
Bradfield St George	Black-grass	21.04.16	Emerging	22.04.16	–	–

Weather conditions this season

This season, weeds as well as sugar beet have been looking rather miserable due to the cold weather (see Photos 1 and 2), although warmer weather these last few days has helped.

As a rule of thumb, the following applies to post-emergence annual broad-leaved weed sprays where a conventional 3-spray programme is being followed:

- The first post-emergence spray is critical as this provides the biggest weed control benefits – get it wrong and you could be struggling all season, especially with difficult weeds such as knotgrass and persicaria.
- The second is the one where hopefully weather conditions are warmer and weeds are easier to control, offering some flexibility in adjusting rates of herbicides and modifying according to weed species present and the efficacy of the first spray.
- The third is hopefully the last one and should be relatively straight forward and probably based on a desmedipham:phenmedipham mix such as **Beetup Compact** + ethofumesate e.g. **Ethofol 500 SC** plus an adjuvant.
- Obviously weeds such as volunteer potatoes and thistles often require more than three post-emergence sprays.

If the first post-emergence spray is struggling, then two options are:

- 1) Close the interval between sprays, but adhere to any label restrictions.
- 2) Increase the rates of actives being applied according to weed species present.

Table 2 provides information on the 10 actives that are approved for use in sugar beet for ABLW control, Table 3 shows key UPL sugar beet herbicide products and Table 4 gives the key strengths of herbicide actives.



Photo 1. Weeds



Photo 2. Sugar beet

Table 2. Herbicide actives for use in sugar beet for ablw control and mode of action group

Active (s)	Residual	Contact	Pre	Post	HRAC
ethofumesate	✓	✓	✓	✓	N
lenacil	✓		✓	✓	C1
metamitron	✓	✓	✓	✓	C1
phenmedipham		✓		✓	C1
triflusalufuron-methyl		✓		✓	B
desmedipham		✓		✓	C1
clopyralid		✓		✓	O
quinmerac	✓		✓		O
tri-allate	✓		✓		N
chlolidazon	✓		✓		C1

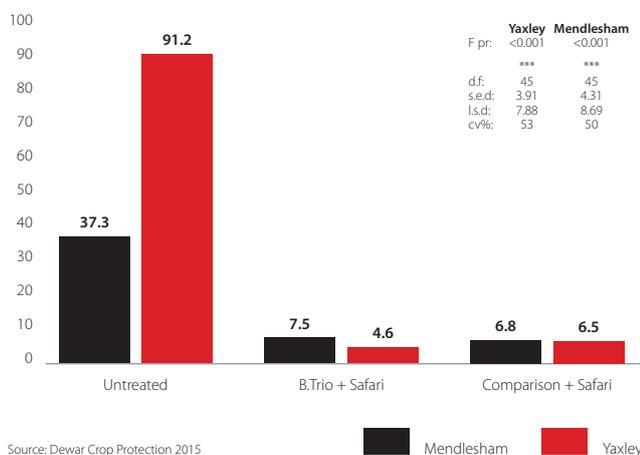
Table 3. UPL sugar beet herbicide products

Ethofol 500SC	ethofumesate
Bettix Flo	metamitron
Beetup Flo	phenmedipham
Vivendi 200	clopyralid
Beetup Compact SC	phenmedipham + desmedipham
Betasana Trio	phenmedipham + desmedipham + ethofumesate

Table 4. Key strengths of herbicide actives that can be used post-emergence in sugar beet and fodder beet

Active(s)	Strengths
ethofumesate	cleavers, knotgrass, black bindweed, chickweed, annual meadow grass
lenacil	brassica species, black bindweed, knotgrass
metamitron	mayweeds, knotgrass, small nettle, fat-hen, annual meadow grass
phenmedipham	black bindweed, fat-hen, charlock, ivy-leaved speedwell
triflusalufuron-methyl	brassicacae, fool's parsley, cleavers, mayweeds
desmedipham & phenmedipham	adding desmedipham is useful in dry and cold conditions
clopyralid	volunteer potatoes, thistles, mayweeds

Graph 1. % total weed control at two UPL trial sites in 2015



Betasana Trio programme for mixed populations of ABLWs – results from 2015

In two UPL sugar beet herbicide trials carried out in 2015, three applications of **Betasana Trio** 75:15:115 (phenmedipham:desmedipham:ethofumesate) + Safari Lite WSB were compared against a 60:47:75:27 (phenmedipham:desmedipham:ethofumesate:lenacil) + Safari Lite WSB programme. Table 5 gives information on products and rates used, and Graph 1 shows the level of weed control achieved. It can be seen that the weed burden was higher at the Yaxley site which were mainly polygonums compared to the Mendlesham site where the key weeds were cleavers. Although the **Betasana Trio** programme was around £28/ha cheaper, there were no significant differences in the level of weed control achieved.

Table 5. Three-spray programmes used in UPL's 2015 sugar beet herbicide trials

Timing	Products	Rates/ha
T1	Betasana Trio + Safari Lite WSB + Bettix Flo	1.0 + 140g + 0.5
T2	Betasana Trio + Safari Lite WSB + Bettix Flo + Oil*	1.5 + 140g + 0.5
T3	Betasana Trio + Safari Lite WSB + Bettix Flo + Oil*	1.5 + 140g + 0.5

BASIS points for the technical information provided by this series of updates are CP/43974/1516/g. To claim them email assistant@basis-reg.co.uk.

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