

Beet Crops

Technical Update 02

12 April 2017

UPL Europe Ltd, Annual Broad-leaved Weed (ABLW) Sugar Beet Trials – Suffolk 2017

This week it has been warm and dry in Suffolk with the early drilled beet at Yaxley now fully emerged, see Photo 1, and a nice selection of weeds popping through! The first post-emergence spray is planned for Tuesday 11th April. At the Mendlesham sites the crop is emerging but rain would be welcome, all sites include some pre-emergence treatments so it will be interesting to see how they perform in this dry weather. A summary of activity at the three sites is given in Table 1.

Table 1. Details of Sugar Beet Trials 2017 – Suffolk (6th April 2017)

Location	Drilling Date	Crop Growth Stage	Pre-em
Mendlesham 1	28.03.17	Emerging	30.03.17
Mendlesham 2	24.03.17	Emerging	28.03.17
Yaxley	16.03.17	Fully expanded cotyledon	25.03.17



Photo 1. Sugar beet cotyledons fully expanded

Timing of First Post-emergence Spray at Yaxley

In recent years there has been a trend towards 'very early' spraying with low rates of herbicides. Timing will depend on weeds present, but generally in UPL trials we have achieved the best weed control from waiting until the cotyledons have fully expanded before applying the first sprays, see Photo 1. Photos 2 and 3 show the typical size of Field Pansy and Black-bindweed present at this site. It is expected that good control will be obtained of these weeds with a standard **BETASANA TRIO** programme. Starting too early can sometimes mean late emerging weeds escape control, or an extra post-em spray has to be included. Typical late germinating weeds are volunteer OSR and fat-hen which can cause problems in open crops.

A conventional first **BETASANA TRIO** treatment at the expanded cotyledon stage would be:

- **BETASANA TRIO** 1.25 to 1.5L/ha + **BETTIX FLO** 0.75 to 1.0L/ha + Oil

The rates of product used should be varied according to weed species present and their size. **BETASANA TRIO** can be used at 2.0L/ha on its own from the crop emergence stage, and at 2.0L/ha in tank mix with approved partners from the fully expanded cotyledon stage. A maximum rate of 2.5L/ha is approved from the 2-true leaves unfolded stage.

UPL Fodder Beet Programme

Table 2. provides summary information on key UPL herbicides that are approved for use in fodder beet, remember to check product labels as not all sugar beet herbicides will be approved for use on fodder beet. For information on other UPL products that can be used on fodder beet, visit the UPL website www.upleurope.com where product labels can be found. If appropriate, remember to check for any grazing interval restrictions. Table 3. gives some suggestions of weed control programmes for fodder beet.



Photo 2. Field Pansy



Photo 3. Black-bindweed

Table 2. Key UPL Products Approved for Use on Fodder Beet

Product Name	Actives	Formulation	Grazing Interval
Beetup Compact SC	80g phenmedipham 80g desmedipham	SC	35 days
Betasana SC	160g phenmedipham	SC	—
Betasana Trio	115g ethofumesate 75g phenmedipham 15g desmedipham	SC	—
Bettix Flo	700g met amitron	SC	103 days
Efeckt	500g ethofumesate	SC	—
Shiro	500g triflusaluron-methyl	WDG	—
Vivendi 200	200g clopyralid	SL	—

Table 3. A Summary of UPL Supported Programmes for Use on Fodder Beet

Treatment	Minimum Crop Stage and Maximum Rate/ha		Strengths
	First Spray Fully Expanded Cotyledon	Second Spray At least 5 day interval	
BETASANA TRIO SC	1.5 – 2.0L	2.0 – 2.5L	Broad-spectrum
BETASANA TRIO SC + BETTIX FLO	1.5 – 2.0L + 0.75 – 1.0L	2.0 – 2.5L + 0.75 – 1.0L	Improved control of mayweeds, annual meadow grass, fat-hen, field pansy, small nettle and volunteer oilseed rape
BETASANA TRIO SC + VIVENDI 200*	1.5 – 2.0L + 0.5L	2.0 – 2.5L + 0.5L	Thistles, volunteer potatoes and mayweeds
BETASANA TRIO SC + SHIRO	1.5 – 2.0L + 15 – 20g	2.0 – 2.5L + 15 – 30g	Brassica species, cleavers, fool's parsley, crane's-bill

* If using Dow Shield 400 then use half the rate given for Vivendi 200 in Table 3. The use of a vegetable oil is approved for use with all of the above mixtures. Do NOT use mineral oils with first sprays.

UPL will support the use of a 'Broadacre' programme in fodder beet from the crop 1st true leaves 1 cm as given below. Two sprays that are applied 14 days apart will generally give adequate weed control. Only use the 'Broadacre' programme on crops that are not showing any signs of stress. Do not spray when temperatures are above 21°C, when there is high humidity and zero cloud cover; in those situations, delay spraying until the evening or early morning.

- **BETASANA TRIO** 1.5 to 2.0L/ha + **BETTIX FLO** 0.5L/ha + Venzar Flowable* 0.2L/ha + **SHIRO/Debut** 20g/ha

* An EAMU is required for Venzar Flowable post-emergence on fodder beet.

Energy Beet and Clopyralid

As a general rule, clopyralid as in Vivendi 200/Dow Shield 400 should not be applied to any 'energy beet' that are destined for AD plants.

Black-grass Control in Sugar Beet

In 2016, UPL, in conjunction with DCP carried out two trials looking at black-grass control in sugar beet. Key findings were:

- There was no significant difference between treatments with respect to sugar beet plant populations irrespective of spray timing or spray intervals between Centurion max and annual broad-leaved weed herbicides.
- Centurion max applied early gave significantly better results than Centurion max applied at the end of the herbicide spray programme.
- When Centurion max was applied late, control of black-grass was not so effective with some plants likely to recover and produce viable seeds.

Summary advice for black-grass control in sugar beet:

- Always use a pre-emergence herbicide based on ethofumesate, e.g. **EFECKT**.
- Apply clethodim, e.g. Centurion max post-emergence once the first flush of black-grass is at the 3-leaf stage, this may be the first post-emergence spray.
- Use a water conditioner in hard water areas with Centurion max.
- Where black-grass is present at high levels, give control of this priority over annual broad-leaved weed herbicides.
- Do not mix clethodim in with annual broad-leaved weed herbicides.

BASIS points for the technical information provided by this series of updates are CP/51900/1617/g.

To claim them email assistant@basis-reg.co.uk.

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