

# Beet Crops

## Technical Update 04

3 May 2019

### UPL Europe Ltd (UPL) – sugar beet trials progress

The UPL sugar beet trials are growing away relatively well, although we could do with some more rain. Within the sugar beet growing area, rainfall has been variable, with some areas in Lincolnshire reporting 13mm and others receiving only a few mm if they were lucky! Emergence of the beet within the trials is variable at Yaxley – the majority of the crop is at the 2 to 4 true leaf stage (Photo 1.), but there are gaps in some of the rows which may or may not fill out. Pre-emergence sprays were applied to some of the treatments in the 'Programme Trial' based on **OBLIX MT/VOLCANO** (metamitron + ethofumesate) or **BETTIX FLO SC** (metamitron) + **EFECKT** (ethofumesate), and considering the dry conditions, they have worked relatively well. The weed spectrum at the two sites is very different - at Mendlesham, there are large numbers of Pale Persicaria (*Persicaria lapathifolia*). Other dominant weeds present are Black-bindweed (*Fallopia convolvulus*) and Cleavers (*Galium aparine*). Black-bindweed dominates the weeds seen at Yaxley (Photo 2.), but there are also relatively high numbers of Red dead-nettle (*Lamium purpureum*) and Fat-hen (*Chenopodium album*). The UPL trials have just received their second post-emergence sprays (Table 1.).



Photo 1. Beet at 4 true leaf stage



Photo 2. Untreated plot at Yaxley

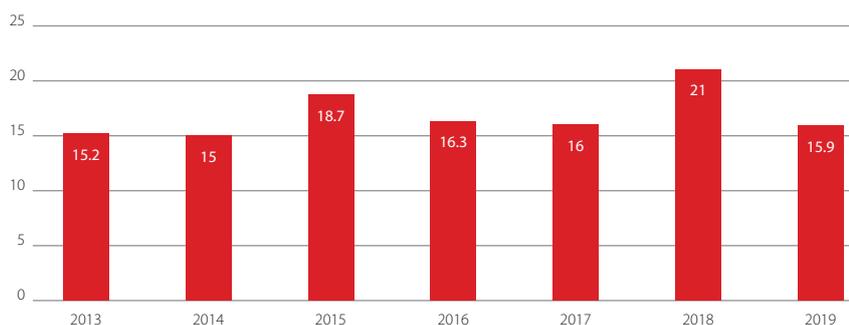
**Table 1. Spray timings of UPL Sugar Beet Trials 2019 – Suffolk**

Location	Pre-em	1st Post-em	2nd Post-em
Mendlesham	—	23.04.19	01.05.19
Yaxley Varieties	—	23.04.19	01.05.19
Yaxley Screen	—	17.04.19	30.05.19
Yaxley Programmes	03.04.19	17.04.19	30.05.19

### Conditions at spraying and cleaver control

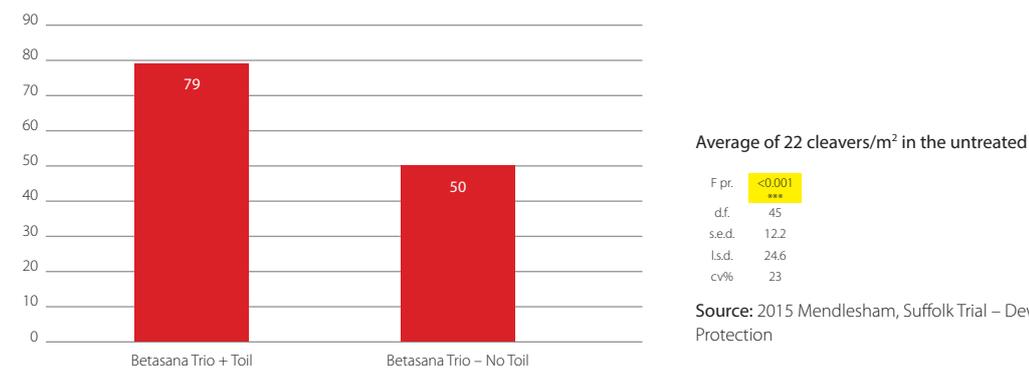
The 2019 season is turning out very differently to 2018, with temperatures at the T1 spray timing being more in line with the long-term average of around 15°C to 16°C see Graph 1. Weeds this season are likely to be more difficult to control due to the cooler and drier conditions, so consider using formulations that contain desmedipham such as **BETASANA TRIO** (phenmedipham + desmedipham + ethofumesate) and **BEETUP COMPACT SC** (phenmedipham + desmedipham). The addition of an adjuvant oil will help the activity of **BETASANA TRIO** especially where cleavers are present, see Graph 2. It is also advisable to include **SHIRO** (triflurosulfuron-methyl) for cleaver control.

**Graph 1. Temperature °C at T1 spray timing**



Source: Dewar Crop Protection

**Graph 2. % Cleaver control with Betasana Trio**



Source: 2015 Mendlesham, Suffolk Trial – Dewar Crop Protection

**Broadacre Programmes**

The ‘Broadacre Programme’ which consists of two hard hitting sprays is useful in a number of situations e.g.

- Where weeds are past the cotyledon stage – ‘fire-engine’ sprays
- If sprayer capacity is stretched and there is a requirement to reduce the number of passes
- If the first broad-leaved herbicide spray needs to be delayed enabling a CENTURION MAX (clethodim) application to be applied first

The first ‘Broadacre’ treatment to the UPL trials was applied on the 30.05.19, Photo 3 shows the size of the weeds present at spraying, with the dominant weed being Black-bindweed. The second spray will be in 10-14 days’ time. Broadacre programmes supported by UPL from the 1st true leaves 1cm stage of the beet are shown in Table 2.



Photo 3. Black-bindweed in ‘Broadacre’ Plot

**Table 2. Broadacre Programmes supported by UPL**

Option	Products	Rates/ha	Comments
1	BETASANA TRIO + SHIRO + Venzar 500 + BETTIX FLO SC + Oil	2.0 + 20g + 0.4 + 0.5	Reduces the number of products used by using Betasana Trio.
	BETASANA TRIO + SHIRO + Venzar 500 + BETTIX FLO SC + Oil	2.0 + 30g + 0.4 + 0.5	
2	BEETUP COMPACT SC + EFECKT + SHIRO + Venzar 500 + BETTIX FLO SC + Oil	2.0 + 0.4 + 20g + 0.4 + 0.5	Allows flexibility in the rate of ethofumesate that is being applied.
	BEETUP COMPACT SC + EFECKT + SHIRO + Venzar 500 + BETTIX FLO SC + Oil	2.0 + 0.4 + 30g + 0.4 + 0.5	
3	BEETUP COMPACT SC + SHIRO + VIVENDI 200 + BETTIX FLO SC + EFECKT + Oil	1.5 + 20g + 0.25 + 0.5 + 0.4	Useful if thistles or volunteer potatoes are present.
	BEETUP COMPACT SC + SHIRO + VIVENDI 200 + BETTIX FLO SC + EFECKT + Oil	1.5 + 20g + 0.25 + 0.5 + 0.4	

BETASANA TRIO = phenmedipham + desmedipham + ethofumesate. BEETUP COMPACT SC = phenmedipham + desmedipham. BETASANA SC = phenmedipham. BETTIX FLO SC = metamitron. SHIRO = triflusalufuron-methyl. VIVENDI 200 = clopyralid. EFECKT = ethofumesate. Venzar 500 = lenacil.

However, **where possible**, it is best to wait for the crop to reach the first pair of true leaves fully expanded stage, before spraying with a ‘Broadacre’ treatment, as it can be hard on the crop. Photo 1 shows the stage of beet in the UPL trials, the third and fourth true leaves were getting towards 2cm. Broadacre is not a good choice if difficult weeds are present such as mayweeds and knot-grass, but it will work and can be useful in the right situation. If in doubt, try Broadacre on a field where easier to control weeds are present to gain experience, or visit trials to see how it works. **Never use Broadacre if the crop is under any kind of stress.**



## Grass weed control in beet crops

UPL has a range of herbicides with grass weed activity that can be used in the beet crop, as shown in Table 3. CENTURION MAX should be the first choice for post-emergence control of black-grass, whereas products such as EFECKT and BETTIX FLO SC are best used pre-emergence for activity against this weed.

**Table 3. Graminicides approved for use in beet crops summary of activity on grass weeds**

Product	Active(s)	Growth stage of crop	Grass weeds*	Fodder Beet	Sugar Beet
CENTURION MAX	clethodim	Fully expanded cotyledons	AMG, Black-grass, Bromes, Italian Ryegrass, Volunteer Cereals, Wild Oats	EAMU 2727/17	✓
EFECKT	ethofumesate	Pre and Post	AMG, Black-grass, Bromes, Wild Oats	✓	✓
BETTIX FLO SC	metamitron	Pre and Post	AMG, Black-grass,	✓	✓
PANAREX/RANGO	quizalofop-P-tefuryl	2 true leaves	Black-grass, Common couch, Italian Ryegrass, Perennial Ryegrass, Volunteer Cereals, Wild Oats	✓	✓

\*Label information – some strains of annual grasses have developed resistance to some herbicides, leading to poorer control.

If you require further technical information on the UPL beet product range then please contact me at [pam.chambers@uniphos.com](mailto:pam.chambers@uniphos.com).

**BASIS points for the technical information provided by this series of updates are CP/67237/1819/g. To claim them email [assistant@basis-reg.co.uk](mailto:assistant@basis-reg.co.uk).**

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