

# Beet Crops

## Technical Update 02

15 May 2018

### UPL Europe Ltd, Annual Broad-leaved Weed (ABLW) Sugar Beet Trials – Suffolk 2018

The three UPL herbicide trials were sprayed at the end of last week to avoid the very hot temperatures experienced earlier in the week. (See Table 1). Some bird damage is being experienced at the Yaxley (Kemp's) site but the other two fields are showing good growth. Weed emergence is promising (for the trials) with quite a selection of species now 'popping up' including: cleavers, fat-hen, pale persicaria (I think!), black-bindweed, red dead-nettle, field penny cress, and quite a lot of volunteer oilseed rape. The main weed of concern at present is the pale persicaria, first true leaves are showing (Photo 2) so it will be interesting to see how the different treatments control this. The cleavers are still rather 'hard' at present ideally they need some soft new growth on them for sprays to work well. (Photo 1)



Photo 1. Cleaver

Table 1. Details of Sugar Beet Trials 2018 – Suffolk

Location	Drilling Date	Pre-em	1st Post-em Crop 1st True Leaves
Mendlesham	21.04.18	22.04.18	10.05.18
Yaxley (Kemp's)	19.04.18	20.04.18	09.05.18
Yaxley (Barn Field)	17.04.18	None applied	09.05.18

### Control of Pale Persicaria (*Polygonum lapathifolium*) and Redshank (*Polygonum persicaria*)



Photo 1. Pale Persicaria

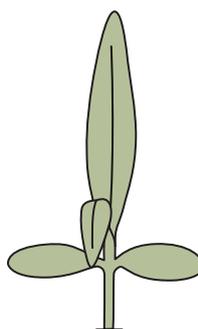


Diagram 1. Pale Persicaria

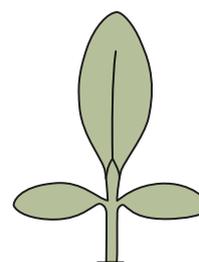


Diagram 2. Redshank

#### Diagnostic features of pale persicaria

- Cotyledons are narrow and lance-shaped
- Long narrow first true leaf which is 'silvery' with hairs
- Hypocotyl is bright scarlet
- Bears white flowers

#### Diagnostic features of redshank

- Cotyledons are lance-shaped
- First true leaf is broad, smooth and dark green
- Hypocotyl is bright scarlet
- Bears pink flowers
- Later leaves have a thick black blotch in the centre of the blades

Although weed scientists find it easy to distinguish between pale persicaria and redshank at the cotyledon stage, I admit to 'struggling'. I am convinced (at present) that the seedlings in the UPL trials are pale persicaria (Photo 1) as the first true leaves appear to be 'silvery' with hairs, at later stages the distinguishing 'black blotches' on redshank, legends variously attribute this mark to the blood of Christ or to being pinched by the Virgin Mary or the Devil make it easy to tell it from pale persicaria. Both of these annual weeds species can be a serious problem in beet crops as they have the potential to grow up above the crop if not controlled, leading to serious yield loss. Fortunately with respect to herbicide choice it does not matter too much about the correct identification as long as you know it is redshank or persicaria or indeed both in the field!

Yield Effect	Key Actives	Comments	Suggested Products <sup>(1)</sup>
Each plant can be expected to reduce yields by around 3t/ha in a 50t/ha crop. (Research carried out prior to crops achieving over 100t/ha)	phenmedipham desmedipham ethofumesate  and when weeds are bigger  triflusalufuron-methyl adjuvant oil	Need to control prior to weeds getting to the two leaf stage. Ideally first sprays should be applied when they are cotyledons.  Ensure "good kill" is achieved to prevent re-growth. The addition of triflusalufuron-methyl and lenacil will help if weeds are starting to get away. In a fire-brigade situation close the interval between sprays.	BETASANA TRIO + Oil  BETASANA TRIO + SHIRO + Oil  BETASANA TRIO + SHIRO + Venzar 500 SC + Oil

<sup>(1)</sup> Suggested products are based on the UPL beet herbicide range.

A good source of information on *polygonums* is 'Beet Review Volume 69 Issue 2 – Weed Biology Series, the *polygonums*' by Dr Gillian Champion.

### Temperatures at Spraying

There are reports of crop damage from early applied herbicides, generally related to spraying in very hot conditions where cloud coverage has been low or non-existent and mixtures too hot. As a reminder:

- High temperatures immediately after spraying may cause crop damage, stop spraying at least four hours before temperatures or light intensities rise to damaging levels (above 21°C, cloudless skies and high relative humidity). Spray early in the morning or in the evening.
- Crops are not only susceptible at emergence they can also be vulnerable when they are growing rapidly at later growth stages, where rapid growth has occurred there will be less wax on leaf surfaces making it easier for herbicides to enter the weeds and also damage the crop. On the UPL trial sites growth has been rapid due to the availability of moisture and the warm weather.
- Make sure that herbicide mixes that are being applied are supported by the manufacturer(s) – check their information.

### Question of the Week!

#### 'What are the best actives to control *Amsinckia*?'

This weed is also known as Fiddleneck and Tarweed, it belongs to the Boraginaceae family the same as borage and forget-me-knots. It was introduced from North America and can be common in the Breckland area of East Anglia.

The key active to include in the herbicide programme for the control of this weed is metamitron as in **BETTIX FLO SC** and include oil as the leaves of this weed are hairy. Sprays need to be at the cotyledon stage of the weed and spray intervals reduced if struggling to control.

**BASIS points for the technical information provided by this series of updates are CP/58801/1718/g. To claim them email [assistant@basis-reg.co.uk](mailto:assistant@basis-reg.co.uk).**

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