



Issued: 9<sup>th</sup> May 2023



## IN BRIEF

- Crops continue to emerge with the majority at the 2-leaf stage and marking rows. Some more advanced crops at the expanded 2<sup>nd</sup>/emerging 4<sup>th</sup> leaf stage.
- A few crops have been affected by capping and some are a little slow and stressed, possibly due to slumped, wet and anaerobic soils.
- Incidence of blackleg has been confirmed.
- *Myzus persicae* has been confirmed in crops with numbers expected to increase this week.
- On average, the number of wingless aphids remain below the threshold for application to date.
- Cruiser SB treated crops should be protected against aphids for approximately 10 weeks from drilling.
- Non-Cruiser treated crops will require a foliar insecticide at an early stage and should be checked for wingless aphid numbers now.
- Warm weather is resulting in vigorous leaf growth on spoil heaps, sites of last season's beet clamps and groundkeepers. These are a potential source of both aphids and virus as well as other diseases and should be controlled as a matter of urgency.



## ADVISORY

It is essential to check non-Cruiser treated crops for aphids.

Winged adult activity is increasing. To date, three species have been confirmed in sugar beet: the peach-potato aphid (*Myzus persicae*) the potato aphid (*Macrosiphum euphorbiae*) and the black bean aphid (*Aphis fabae*). *Myzus persicae* is the key species as a vector of virus.



For more info on aphid identification see <https://www.bbroy.co.uk/media/50728/aphid-id-home-print.pdf>

Wingless juveniles can be produced very quickly once the adult females have landed on a leaf. They grow rapidly passing through four development stages (instars) with the juveniles moulting their exoskeleton between each instar stage. The growth rate depends largely on temperature. On average, juveniles reach adulthood and are able to fly and move to other areas of field, potentially spreading the virus and producing more offspring within 10 days of birth.

Control of wingless juveniles is key to reducing their further spread of virus both within crops and to other sugar beet crops.

## **Aphid monitoring**

It is vital that non-Cruiser treated crops are monitored closely for aphids.

The BBRO website provides a guide to the number of aphids in your area. Wingless aphids are being counted on plants at 46 sites. The majority of these were drilled with non-Cruiser treated seed. On average, the number of wingless aphids has been below the threshold for application to date (please refer to the BBRO website for latest information [Aphid Survey Dashboard - BBRO](#)).

Of 9 BBRO yellow water pan sites operating last week 45 winged *M. persicae* and 15 *M. euphorbiae* were caught (up until 5<sup>th</sup> May). All have been tested for virus and two *M. persicae* tested positive for the beet poleroviruses. Minimizing the numbers of virus carrying aphids will be critical.

This is a general guide to aphid numbers, but we know that these can vary massively between fields. It is essential therefore that you assess your individual crops for aphids.

You need to do this at several locations across each field to gain a good average for the field. Because of the prolonged drilling season, you may have fields at various stages of emergence and early canopy growth. Finding a single common application date for all fields may be a challenge and going either too early or too late for some crops may compromise efficacy and the number of foliar applications you can make.

Be careful to make sure you check for aphids on the heart leaves, within the folds at leaf margins and on the underside of leaves.

Aphids are not evenly distributed across fields. When checking for aphids in crops, check sheltered field margins, especially the leeward (downwind) of shelter belts and the leeward side of any hills and in hollows. This is where aphids can often be found in greater numbers. Also, if there is oilseed rape grown in proximity, check in areas of the field nearest to this as this may be the local source of aphids.

It is important to look at plants closely as recent rain may have forced aphids into the heart of plants.

## **Triggering the use of foliar insecticides**

At this stage of the season the threshold trigger for spraying is 1 green wingless aphid per 4 plants (5 green wingless aphids per 20 plants).

Where plants are still emerging or are small (cotyledon/1-2 true leaves) you might want to consider the timing of the first application to ensure there is sufficient leaf area to maximise the efficacy and uptake of the aphicide by the plant.

Currently there are two aphicides available: InSyst and Teppeki or Afinto (only one application of either flonicamid-based product is permissible). We are awaiting the outcome of an EA application for a third foliar insecticide (Movento). We will let you know the outcome as soon as we receive a decision.

Where a foliar insecticide is required in non-Cruiser crops, we recommend starting with InSyst for faster knockdown and then using Teppeki/Afinto as a second spray. Movento (if approved) will be your third spray option.

Remember Cruiser-treated crops should be protected for up to 10 weeks from drilling so should not require a foliar insecticide at this stage. Make sure you have the drilling date of each crop recorded so you are clear on where aphid monitoring is a priority.

### **Late drilling/re-drilling Cruiser SB-treated sugar beet seed**

Please remember that it is a condition of the EA that no Cruiser SB-treated seed can be used after 1 June 2023. Additionally, no Cruiser SB-treated seed may be used on the same field area for 46 months from the date of sowing treated sugar beet seed in 2023. This means no re-drilling with Cruiser SB-treated seed.

### **Farm hygiene**

Removal of any potential sources of aphids and virus at this stage of the season is critical to help reduce virus levels, especially in non-Cruiser treated crops.

Unfortunately, it is all too easy to find examples of leaf growth on spoil heaps, last season beet clamps where not all the roots were removed and groundkeepers from previous crops. Fodder beet clamps have also 'greened-up' with the warmer temperatures.



Leaf growth on spoil heap in Kings Lynn area last week

## Plant disease - Blackleg symptoms

Several cases of plants with blackleg symptoms have been reported and received at the BBRO Plant Clinic. The symptoms are associated with fungal infections such as *Aphanomyces*, *phoma* and *pythium*) of the root. Infection causes the root to blacken, shrivel and collapse with secondary effects on the emerged stem including red-colouration, distortion of the leaves and wilting. The warm and wet conditions will favour infection. Seed applied fungicide will help to control *aphanomyces* infection but in some situations such as acid soils and favourable weather conditions the disease pressure will be high. Some plants may recover, others may fail to establish. Monitor any outbreaks for the impact on plant populations.



## Tank mixing herbicides and insecticides

As both weeds and beet are emerging and growing rapidly, it is proving difficult to keep up with timely spraying due to the weather and also the pressure from the need to spray other crops. There will be pressure to carry out tank mixing as aphid numbers reach threshold.

Insecticides for aphid control in beet require high water volumes and rates should **not** be reduced (see Table 1). Ideally it is advisable to tank mix insecticides with graminicides rather than annual broad-leaved weed herbicides, especially at the early post-emergence timings. Graminicides are generally applied at higher water volumes i.e., 200 l/ha whereas annual broad leaved weed herbicides tend to work better on smaller weeds at 80-100 l/ha. However sometimes compromises may have to be made this season.

Acetamiprid and flonicamid are supported from 2 true leaves of the crop (BBCH 12). Remember sugar beet can only be treated with the new label InSyst (MAPP19873). Sugar beet was not on the old label and the previous emergency authorisation has expired.

**Table 1 – approved insecticides for controlling aphids in sugar beet**

Active	Product Name	Rate/ha	Water volume (l/ha)	Buffer Zone	Harvest Interval
acetamiprid	InSyst	0.25 kg	200-500	B	28 days
flonicamid	Teppeki Afinito	0.140 kg	200-500	0	60 days

For all tank mixes check individual labels as they can vary even if the actives are the same.

There are no tank-mixes from Certis Belchim for mixing InSyst (acetamiprid) with herbicides, however some other manufacturers provide physical compatibility support (see Table 2) with annual broad-leaved herbicides **note this is not an exhaustive list**.

**Table 2. Tank mixes for herbicides with acetamiprid or flonicamid**

Betanal Tandem + Tepeki/Insyst
Betanal Tandem + Debut + Tepeki/InSyst
Betanal Tandem + Dow Shield 400 + Tepeki/InSyst
Betanal Tandem + Goltix 70SC + Tepeki/InSyst

Betanal Tandem + Goltix Titan + Teppeki/InSyst
Betanal Tandem + Venzar 500 SC + Teppeki/InSyst
Betanal Tandem + Safari Lite WSB + Teppeki/InSyst
Betanal Tandem + Vivendi 200 + Teppeki
Centurion Max/Select Prime/Balistik + InSyst

Physical compatibility support is provided by Syngenta and/or Certis Belchim for Afinito/Teppeki with the following gramincides:- Balistik, Centurion Max, Fusilade Max, Panarex, Pilot Ultra, Rango, Select Prime.



## EVENTS

### Book for May Demo farm events

**BEATING THE CHALLENGE**  
2023 BeetField events

British Beet  
**BBRO**  
Research Organisation

Supporting growers to push the crop and gain rewards

Morley Yaxley Fincham Brace-bridge

**May 2023 - 1 hour visits**  
**16th - Morley, Norfolk 8:30, 9:30 or 10:30**  
**16th - Yaxley, Suffolk 14:00, 15:00 or 16:00**  
**18th - Bracebridge 8:30, 9:30 or 10:30**  
**18th - Fincham, King's Lynn 14:00, 15:00 or 16:00**

- Aphid and virus management
- On-farm monitoring - Beet moth, cercospora and more
- Soil score card - practical help
- 2024 Varieties in action

**Book: [www.bbro.co.uk/events](http://www.bbro.co.uk/events)**

**BBRO will also be attending the Morley Innovation Day. Book via: [niab.com/morley-innovation-day-east-anglia-22-june-23](http://niab.com/morley-innovation-day-east-anglia-22-june-23)**



## CONTACTS

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## BASIS POINTS

Two BASIS points in total (not per bulletin) have been allocated for the period between 01/06/22 and 31/05/23 reference **CP/120094/2223/g**. To claim these points please email [cpd@basis-reg.co.uk](mailto:cpd@basis-reg.co.uk)

Two NRoSO points in total (not per bulletin) have been allocated between 01/06/2022 and 31/05/2023 **NO471260f** reference. To claim these points please email [NRoSOCPD@cityandguilds.com](mailto:NRoSOCPD@cityandguilds.com)