



Issued: 21st May 2021



IN BRIEF

- Crops are now making some good progress. Low temperature has been holding them back but many crops are now marking drills at the 2-leaf stage with more advanced crops at 4-6 leaf stage. Delayed emergence has caused a difference of about two growth stages in some crops, so care is needed in selecting herbicide programmes.



Fig 1 & 2 Crop progress and more advanced growth stage (4-6 leaves) at the BBRO Thorney Demo Field, drilled 24th March.

- Aphid numbers are potentially increasing but are generally still at low levels with few reports of numbers reaching the threshold level (1 wingless aphid per 4 plants). However, we are now entering a critical period, so it is vital that crops are inspected closely and regularly from now on and treated when the threshold is reached. Do not go too early. Remember that we currently have a two-spray programme (Teppeki followed by InSyst) so we need to use sprays effectively.
- It is now your last chance to remove any remaining potential sources of virus before aphids arrive in large numbers and transfer virus into this season's crops. It is still possible to find spoil heaps and beet clamps with leaf growth on them. Leaf growth like this must be destroyed immediately as it is likely to contain virus. Remember also to check for and remove any groundkeepers in fields which had beet last season.



Fig 3: Leaf growth on an old beet clamp in mid-Norfolk this week.

- Where crops are growing rapidly and have reached the 4-6 leaf stage, consider applying foliar nutrients to support rapid growth.
- Some weeds have evaded first herbicide applications or weather has delayed programmes, therefore control is proving to be problematical. Higher rates and additional actives may be required.
- Reports of insect and bird damage to emerging crops are still being highlighted with shot-holing symptoms linked to flea beetle and cotyledons lost to bird grazing. Some leaf miner activity reported. There have also been some reports of blackleg symptoms. In most cases, rapid growing conditions will allow crops to recover and grow-away from the symptoms.

Fig 4: Shot holing – likely related to flea beetle



ADVISORY

Weed control

Many crops have received at least one herbicide application and there is now plenty of soil moisture to help activity. This also is encouraging flush of rapid weed growth so remain vigilant for follow up applications. Some weeds may have evaded herbicides, especially where first applications were delayed due to weather or lower rates were used to avoid damaging slow/backward crops. Subsequent sprays may need some additional actives and/or higher rates. Using adjuvant oil can help to improve control but be mindful of specific product recommendations in relation to weather conditions. Inclusion of lenacil may help with brassicas, black bindweed, knotgrass and persicaria and clopyralid and trisulfuron-methyl may be useful where weeds are getting big. A high rate of phenmedipham and ethofumesate may be a fire-brigade option. Try to avoid letting polgonums and mayweeds escaping beyond the two-leaf stage, whilst also trying to be wary of increased susceptibility to herbicide damage in rapidly growing crops.

Aphids

Aphid numbers in the BBRO yellow water pan network are still relatively low with aphids found on a limited number of sites but with no reports of wingless aphids above threshold. There are increasing reports of aphids in crops by growers and agronomists and some early reports of wingless aphid numbers being above threshold. The situation is changing daily so make sure you check the very latest update on the [BBROplus website](#).

It is vital that you start your own aphid monitoring programme, especially where the crop is producing many new leaves in rapid succession. 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. You need to do this on at least 12 plants in 5 locations across the fields, providing an indication of wingless aphid numbers on the crop.

At this stage of the season the threshold trigger for spraying is 1 green wingless aphid per 4 plants (3 green wingless aphids per 12 plants) up to the 12-leaf stage.

The insect suction traps at Brooms Barn and Kirton capture insects at a height of 12m and are a good indication of the stage of the winged aphid migration. Numbers of *Myzus persicae* reported to date (early May 2021) have all been in single digits. Last season, the numbers were in the hundreds and exceeded a thousand in the second half of May.

Nutrition

Make sure you have applied all the nitrogen to your crop. Sufficient nitrogen is essential to drive leaf growth. In the rapid phase of leaf canopy expansion, a crop can require 4-5kg N/ha per day. As soon as crops reach the 4-6 leaf stage, and especially where growth is rapid make sure you start your foliar Mn and Mg programmes. Additionally, consider applying boron and calcium as foliar applications on very light soils and where young plants are looking stressed or backward. Both elements are essential in the early growth of seedlings. If you have not applied sulphur to the soil, consider applying sulphur as a foliar application, again especially on light sandy soils with low natural nitrogen content and especially where the canopy appears backwards and/or pale.

Leaf Miner

There have been some reports of leaf miner eggs on plants so be vigilant and continue to monitor crops for both eggs and larvae. The treatment threshold is when the number of eggs and larvae exceeds the square of the number of true leaves. For example, a plant with four true leaves would need a population of 16 or more eggs and larvae to warrant treatment. Several pyrethroids (e.g., Hallmark) are available for leaf miner control but please remember the consequences of such treatments on beneficial insects for aphid control.



Fig 5: Look closely for leaf miner eggs



EVENTS

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BeetField21 Self-guided Demo Farm Tours



- Compare early performance of 2022 RL
- Virus incidence and project updates
- Drought resistance and impact of irrigation
- Future proofing sugar beet crop
- Mobile plant clinic
- Spotlight on cercospora



Also visit the support and advice hub to discuss current issues with the BBRO team

15th June: Thorney | 17th June: Bracebridge | 22nd June: Bexwell | 24th June: Diss

Limited spaces - 90 minutes per visit
Booking essential: www.bbro.co.uk/events
NRoSO and BASIS points available



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Two NRoSO points in total (not per bulletin) have been allocated between 01/06/2020 and 31/05/2021 reference **NO468433f**. To claim these points please email NRoSOPD@cityandguilds.com