



3rd July 2024

- The aphid threat has subsided, and BBRO monitoring completed for this year. However, there are still a few pockets of aphids being observed, particularly in the Newark factory area, and any late drilled crops would be worth watching. Black bean aphid numbers are high at some locations, but it is rarely worth controlling this aphid (unless the crop is stressed) and there are a plethora of beneficial insects decreasing the numbers of this pest.
- Virus symptoms are low with a few primary infection plants visible in crop.
- There is a myriad of small issues across the growing region, such as; multi-crowning, bacterial leaf spot, downy mildew, leaf miner, tortoise beetle, BCN, FLN, bird damage and low pH but none of these are at a level to cause widespread concern at the moment.
- Remove any weed beet or bolters before seed sets.
- Foliar nutrition may help slower crops develop but don't apply if crop is under any stress, such as herbicide damage or drought.
- The cercospora monitoring programme is underway.
- The first report of rust has been received this week.
- Listen to the [July Beet Cast](#) for a foliar disease update and overview of our cercospora forecasting and monitoring programme.



ADVISORY

Virus yellows and aphid monitoring

Aphid numbers picked up slightly thanks to the warmer, drier weather last week with a total of 29 caught in the 24/6/24 YWP catch. Data for the final catch (28/6/24) is still coming in however a summary of the aphid season up to this last catch is:

A total of 1554 aphids (*Myzus persicae* and *Macrosiphum euphorbiae*) were caught in the BBRO yellow water pan network. All of these aphids were tested via qPCR and 4/1554 were found positive for the beet poleroviruses (BMV and/or BChV). These aphids were caught at:

- Yaxley 25/4/24
- Biggleswade 7/5/24, 9/5/24
- East Ruston 13/5/24

(As a control all aphids were also tested for the closely related non-beet virus 'Turnip yellows virus', 1414/1554 aphids were found positive for TuYV).

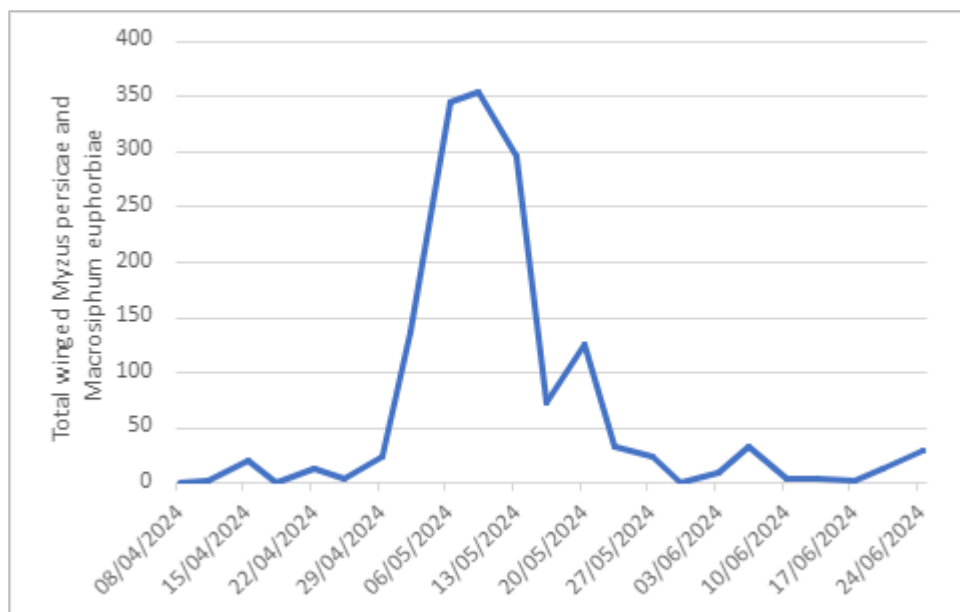


Fig 1: Graph clearly shows the peak of aphids in the first week of May and the impact of the following cooler weather.

Yellowing in crop

Whilst there are a few small pockets of virus yellows showing, there are a number of other potential causes for yellowing in the field. This could be acid patches (from wet areas in the field), manganese or magnesium deficiency or the secondary symptoms associated with downy mildew (check the heartleaf carefully for signs of disease) to name just a few. If you have any concerns please contact the BBRO plant clinic.



Fig 2: Use this QR code to submit a sample to the BBRO plant clinic.

Pests

There is a real mix of pests in the crop, though nothing currently at a level to cause concern. To date we have received reports of: BCN, FLN, leaf miners, capsids, tortoise beetles and black bean aphids. Information on these can be found on our website <https://bbro.co.uk/on-farm/pests/> and in most cases, nature is holding her own. Also, the large number of beneficial insects in crops are controlling black bean aphids well and we do not anticipate the need for spraying this species unless the crop is under stress and numbers are above an average threshold across the field of over 100 aphids per plant.

There have been a number of reports regarding caterpillars in the crop, particularly on the Suffolk coastline and these appear to predominantly be the Silver Y moth. These may have overwintered in the area which is a concern as this pest tends to migrate each year from north Africa and the Mediterranean basin during late spring/early summer. The threshold for pyrethroid treatment is 5 caterpillars per plant, which we would only recommend in severe cases. No cases of beet moth have been reported in the commercial crop, although BBRO are aware that several adults have been identified on the north Norfolk coast around sea beet.

Foliar diseases

Again, a real mix of diseases being found in the crop. Downy mildew, the first signs of rust and bacterial leaf spot (which is a bacterial disease and therefore fungicides will not provide any control). Bacterial leaf spot can be confused with cercospora, so identification is essential for control. Bacterial leaf spot symptoms are more irregularly-shaped spots/lesions than cercospora, with a tan centre and deep brown/black borders (cercospora develop more regular circle shaped spots with reddish-brown margins and tan-grey centres). The spots can coalesce into areas of necrosis which may then collapse leaving holes in the leaf.



Fig 3: Bacterial leaf spot - note the more irregularly-shaped lesions.

Cercospora leaf spot

This is a relatively new disease for the UK and one which can cause concern. Cercospora favours warm and humid weather with prolonged periods of leaf wetness which allow the spores to germinate and colonise leaves of your sugar beet. Once established, cercospora spreads quickly, making early identification essential for good control.

This year the BBRO have launched a comprehensive monitoring service utilising spore data from seventeen strategically placed infield Spornado spore monitoring traps and the WeatherQuest risk forecasting

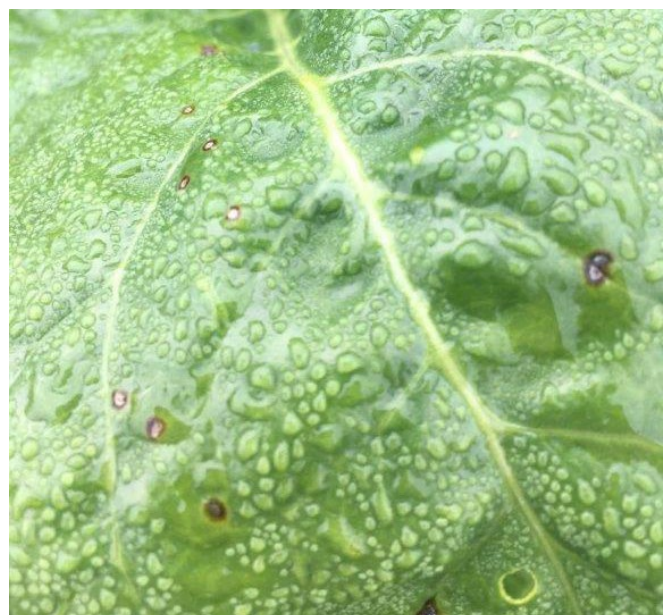


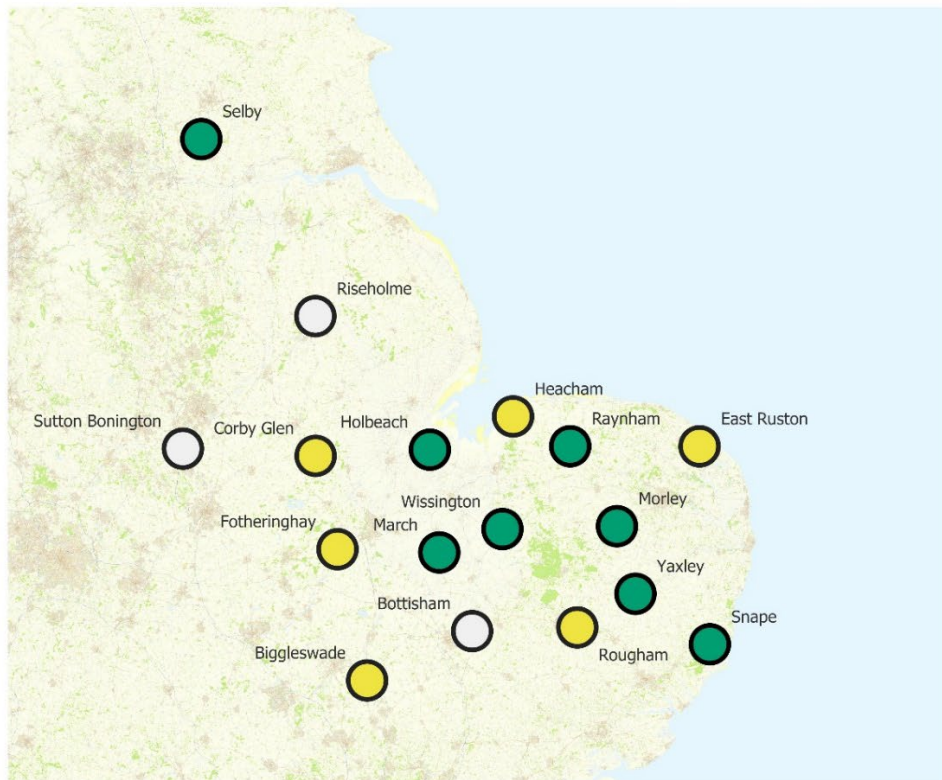
Fig 4: Early signs of cercospora leaf spot with more regular circular spots

system. The map below shows the areas where cercospora spores have been captured in the air, development within leaves will then be dependent on length and level of leaf wetness in the canopy. Currently the weather risk forecasting system has not triggered a 'high-risk' period, however, pockets of disease could still develop in areas of high humidity, so please check your crop and spray when appropriate.

Fungicide Selection - Recent and forecast weather patterns are likely to be favouring development of Cercospora leaf spot over the coming weeks. With this in mind, use of fungicides with good efficacy against CLS will reduce the production of spores and further infection of your crops.

2024 Cercospora Leaf Spot Monitoring

Week 25:
Monday 17/06/2024 to Sunday 24/06/2024



Site Status this week:

- No CLS spores detected via Spornado
- CLS spores detected via Spornado
- Asymptomatic CLS infection detected in leaf samples
- Active CLS lesions visible on crop
- No data available
- Dashed circle = Fungicide applied this week

Displayed data are obtained from the BBRO crop monitoring network and are provided for guidance regarding progression of the Cercospora Leaf Spot (CLS) across the UK.

It is still vital that crop walking is regularly undertaken and fungicides only applied to crops once disease symptoms are observed following a recommendation from a BASIS trained advisor.

Note: During the period of twice-weekly spore catches, the marker is turned yellow if either sample tests positive for cercospora via qPCR.

Update issued: 01/07/2024 V24.25.2.AW

Final weed control applications – info provided by Pam Chambers (British Sugar)

For the majority of beet crops weed control has now been completed for this season, but there are a few which still have to reach canopy closure where a final spray may be required. Check crops where canopies have not closed for late germinating 'tall' weeds such as chenopodium species (e.g. fat-hen, orache, fig-leaved goosefoot) and brassicas (e.g. charlock, volunteer OSR), the nightshades can also be late germinating and require controlling.

- At this stage the chenopodium species are best controlled with ethofumesate + phenmedipham (e.g. Betanal Tandem, Powertwin or Betasana SC + Efeckt and include an adjuvant with all options
- Triflurosulfuron-methyl (e.g. Debut/Shiro) and adjuvant is effective on brassica species
- Nightshades are generally well controlled with ethofumesate + phenmedipham and an adjuvant. The addition of triflurosulfuron-methyl can help.
- In some situations, you will have to admit defeat and accept chemical weed control may not work as the weeds are too large

Specific restrictions for sugar beet herbicides

Specific restrictions appear within the 'important information' of a label and form part of the authorisation. As always labels should be consulted but key restrictions to be aware of are: -

- The amount of ethofumesate that has been used, remember there is a 1.0 kg/ha of active over a three-year period on the same field restriction. It is not permitted to exceed this threshold even if using different product brands
- A maximum total dose of 500 g/ha of lenacil may only be applied every third year on the same field
- Where applying late herbicides check restrictions for following crops, especially if an early lift is predicted. Some of the ethofumesate products have a 'no feed or feed crops may be grown within 120 days of treatment' restriction. So, applications made this week will restrict any cereals being planted until the first week of November.
- If Safari Duo Active has been used then a minimum interval of 6 months must be observed prior to the planting of a cereal crop.

Weed control review

Now is a good time to start reviewing how successful weed control programmes have been for 2024 in the beet crop. Check crops for any annual broad-leaved weeds and grass weeds that have not been controlled successfully and try to determine why.

- Were spray intervals too wide?
- Was the active choice and rates used correct for the weed species present?

- Is resistance a potential issue, in particular check after using ALS chemistry for any surviving weeds e.g., poppies, mayweeds, chickweeds following foramsulfuron + thien carbazon-methyl (Conviso One) or black-grass and ryegrass after clethodim
- Identify any unusual weed species, BBRO Plant Clinic may be able to help with identification if you are unsure. Recently identified at one of the trial sites was hairy crab grass (*Digitaria sanguinalis*), and within the national crop survey, Barnyard grass (*Echinochloa crus-galli*) and Mugwort (*Artemisia vulgaris*) and Nutsedge have been identified. With these problem weeds it is essential to control and contain them before they become a whole field/farm problem.

Planning weed control programmes for 2025 – it's never too early!

Prior to the cereal harvest, it is useful to check out fields that are likely to become sugar beet in 2025 with a view to identifying any potential issues that may occur in the following beet crop. Also think about the whole rotation and what weeds are specific to your farm.

- Check for weeds that have escaped the cereal herbicide programme, i.e., poppies and mayweeds which can easily be seen above the crop if present. This may be a sign of resistance to ALS chemistry so ensure if planning to use a SMART beet variety in 2025 you factor in the cost of including conventional chemistry as well to control these weeds
- If introducing a cover crop prior to the sugar beet crop ensure a reliable source of seed is obtained to minimise the risk of introducing unwanted weed species
- Make sure that any cover crop species are not going to be difficult to control in the sugar beet crop

Final thoughts on weed control for 2024

The 2024 season has been very mixed with respect to weed control, for some it has been relatively easy and fields are looking very clean and costs have been within budget. However, where establishment was difficult, spray intervals extended due to weather conditions and unprecedented rainfall occurred close to herbicide applications it has been more difficult. As always, a huge variation across the beet growing region and large differences in weed control within the BBRO herbicide trial plots. Results from the BBRO trials will be shared during the winter months.

Weed beet and bolters

Keep on top of weed beet and bolters. One weed beet could produce 1,500 viable seeds, this is of particular concern for anyone using ConvisoSmart technology. One of the key stewardship actions to preserve the longevity of this chemistry is to ensure scrupulous removal of bolters to prevent seed shed and a problem developing where the seed bank becomes contaminated with weed beet tolerant to ALS-chemistry. Consequently planning, meticulous management and attention to detail is vital – and cost effective for all growers.

- ✓ Failure to adequately control ConvisoSmart bolters breeds a new generation of weed beet that cannot be controlled with ALS-chemistry; there are no new technologies currently in development to manage this new problem
- ✓ Begin to identify fields with bolters which will require removal and have a plan / book labour to achieve this in a timely manner
- ✓ The most effective technique is hand-pulling; this is best done when soils are moist and using a fork to help remove the whole plant (including root)
- ✓ Ideally plants should be destroyed pre-flowering and removed from the field; snapping the stem close to the base can be an option at this timing, although beware of the potential for re-growth
- ✓ If plants have started to flower, then uprooting bolters and removing from the field is vital to minimise the risk of mature seed being shed
- ✓ Bear in mind fields will need to be walked methodically (eg. a tramline at a time) and at least twice (min. 3-4 week interval) to try and best ensure all bolters are removed



EVENTS

BBRO Demo Farms – these will take place in **AUGUST 2024**. There will be one session at each site of approx. 90 minutes. Commencing at 8:30. Booking will open shortly.

19th Morley, Norfolk
20th Eye, Peterborough
21st Selby, Yorkshire
22nd Yaxley, Suffolk

Topics to be covered: current foliar diseases, fungicide use, cover crops, soil management and a view of the 2025 variety strips



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BASIS POINTS

Two BASIS points in total (not per bulletin) have been allocated for the period between 01/06/2024 – 31/05/2025 - CP/138145/2425/g. To claim these points please email cpd@basis-reg.co.uk

Two NRoSO points in total (not per bulletin) have been allocated from 1st September 2023 to 31st August 2024 - NO500860f and NO503154f from 1st September 2024 – 31st May 2025. To claim these points please email [nrroso@basis-reg.co.uk](mailto:nroso@basis-reg.co.uk).