British Beet BBRO Research Organisation

Advisory Bulletin

29th August 2024

IN BRIEF

Important Stewardship Reminder: information required by 31st August for submitting to Defra.

As part of the agreement for the emergency authorisation of the use of Cruiser SB, we need to know if you did or did not follow the Cruiser SB seed treatment stewardship requirements.

If you **did not** use Cruiser SB seed treatment, we still need to know details of your spray programme, even if you didn't use a second spray of Insyst.

The declaration only takes a minute or two to complete on the My British Sugar portal. Here's a **short guide** which shows you what to do.

Need help? Speak to your British Sugar Agriculture Manager or British Sugar Services (freephone) 0800 090 2376 or email agriculture@britishsugar.com.

- Widespread, low levels of foliar disease can be found across the growing region; including cercospora. Therefore, please check crops for this, rust, powdery and downy mildew. Target varieties with a lower disease rating for initial assessments but do keep a watch for other diseases too.
- Watch the spray intervals for fungicide use, ensuring latest date for application before harvest.
- Beet moth continues to cause concern in areas previously affected, but currently this is not thought to be widespread. Please notify us if you have concerns.
- Keep on top of your weed beet and bolters – if in doubt 'Pull them out!'
- Listen to the August Beet Cast for Cover Crop discussion and a catch-up with sugar beet stalwart Tricia Cullimore on 50 years in beet and watch out for the release of the September Beet Cast on the 2025 RL with Mike May.
- Where Cruiser treated seed has been used (in 2023 or 2024) please adhere to the stewardship document regarding rotational crops. This includes cover crop mixes. (see below or visit the Cruiser Stewardship document).

Foliar Disease

We are seeing low levels of varying diseases throughout the crop and urge growers to keep a close eye on development and keep on top of spray programmes. However, if current dry spell continues, spraying fungicides will be problematic especially if crops are wilting, remain flat for extended periods and/ or are losing older leaves. When spraying for disease try and apply products when the canopy is upright and the inner leaves turgid. This is best done early and before the heat of the day.

Keep spray intervals tight, ideally between 21-28 days, being mindful of harvest interval required.

Cercospora control is of high priority, as spore detection has been widespread over the past 6 weeks. If possible, spray at the first sign of disease to avoid establishment within the crop. Ensure you follow the BBRO updates Cercospora Risk.

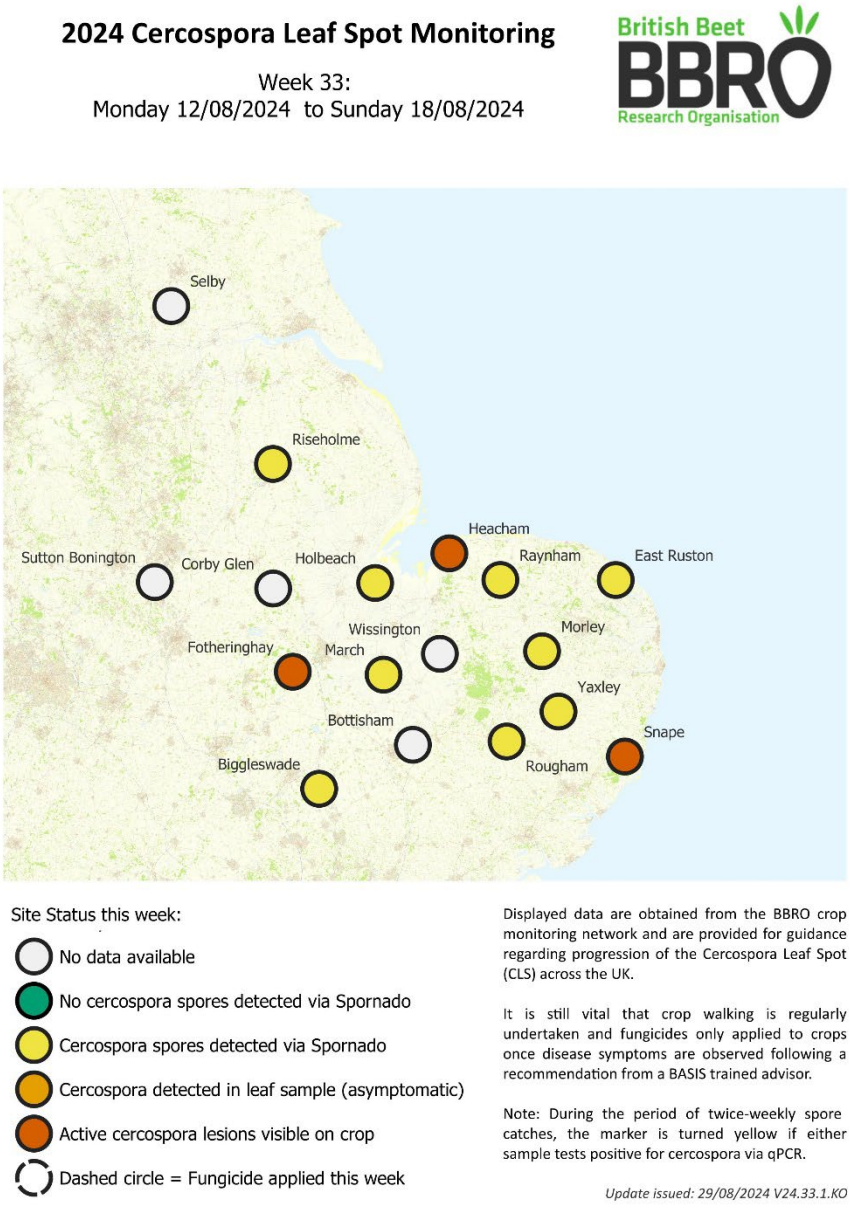

Fig 1: The latest results from the BBRO Spornado spore monitoring network (week 33) show the areas in which cercospora spores have been captured during the week commencing 12th August.

The following points remain pertinent to disease control in 2024:

Eight-point plan for autumn disease management

1. Know what disease(s) are in your crop in order to select the best fungicide options (see back pages for available fungicides).
2. Cercospora leaf spot appears to be an increasing problem in the UK and strains of this fungus are potentially resistant (due to QoI resistance) to strobilurin fungicides. If in doubt contact the BBRO for help with disease identification.
3. As seen from previous BBRO trials, do not apply fungicides too early, wait for early symptoms to show.
4. Conversely, do not apply products too late otherwise effective disease control will be difficult for the remainder of the season.
5. Always follow label recommendations for applying products at the correct growth stage.
6. Ensure the gap between the first and second, or second and third applications, is kept to within 28 days to prevent significant re-infection occurring between treatments.
7. Ensure water volume recommendations are adhered to and are not cut back.
8. Know where specific varieties are sown within fields to monitor any variety-disease interactions.

Beet moth

We are seeing further signs of beet moths and their caterpillars in the crop, particularly in areas that have been previously affected. This is likely due to favourable dry weather conditions and migration of adults over recent weeks. Crops that are most vulnerable are those that are currently droughted or stressed allowing adult moths to lay their eggs in exposed crowns of beet.

Symptoms and symptom progression

Damage begins as the caterpillars start to feed and develop within the centre heart leaves, these symptoms can resemble boron deficiency or downy mildew. On closer inspection the caterpillars (in various colours) can be found within the damaged area of the heart leaves. The small adult moths may also be seen in amongst the canopies.

The caterpillars continue to cause damage as more of the heart is affected and the caterpillars may become increasingly hard to find. The extent of damage will depend on the number of caterpillars and in many cases, plants will continue to produce new leaves. Where damage is more severe, the affected crown may be killed and lateral growing points stimulated to produce leaves, resulting in multi-crowning. Unfortunately, in some cases all the growing points may be affected.

As the damage progresses you may find a second generation has started with numerous moths flying around the canopy again and more damage done to the heart as well as the surface layer of the tap root.

Fig 3: Damage to growing point can be quite severe

Management and Mitigation

Cool, wet weather usually deters beet moth development, and heavy rain events and/or irrigation usually drowns the caterpillars. Ploughing down beet remnants that have been impacted by beet moth may well help to decrease the risk for 2025.

There is the potential for a foliar applied insecticide to be used but this will require large water volumes to penetrate the canopy. Therefore, results may well be variable as it is the caterpillar within the heart leaves that the insecticide needs to target. Experiences with pyrethroids in the UK to date are variable and limited; this re-enforces comments from Europe too.

There are a few products (e.g. Cythrin 500) that have general caterpillar control on their label. It is important that you follow the recommendations on the label. In many cases, this includes the use of high-water volumes. Currently we have no beet moth thresholds for the application of treatments in the UK. French experiences suggest treatment is appropriate when crops are stressed and when 10% or more of plants are showing 'black heart' symptoms.

It is important to keep all remaining and future leaves as green and healthy as possible, for as long as possible to mitigate the impact of beet moth damage.

Weed beet and bolters

Keep on top of weed beet and bolters as these have increasingly been seen in crops. One weed beet could produce 1,500 viable seeds, this is of particular concern for anyone using Conviso Smart 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 (e.g. a tramline at a time) and at least twice (min. 3–4-week interval) to try and best ensure all bolters are removed

Rotational requirements for Cruiser treated crops.

Please remember the following-crop restrictions apply for subsequent crops planted on the same area of land as Cruiser SB sugar beet drilled in 2024.

• Any crop excluded from the below table should be considered 'restricted' i.e. a minimum of 32 months from drilling of Sugar Beet.
• The 32-month restriction applies to those agri-environment options that allow flowers to grow or appear on the same ground on which Cruiser SB treated seed was sown in 2024.
• Cover crops (including mixes) must also follow the 32-month restrictions.
Further information available here.

EVENTS

BASIS Advanced Sugar Beet Course, 5-day course commencing on the 29th October. Due to previous demand this course is already full, but please do register your interest as a reserve for this year or for future courses. Contact: Accounts@bbro.co.uk.

CONTACTS

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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 nroso@basis-reg.co.uk.