# British Beet 🛛 🖊 Advisory Bulletin



31st July 2024

- Cercospora monitoring, has now identified disease developing in crop, following spore collection at the end of June and mid July.
- Follow the BBRO 8-point plan for disease control.
- Keep on top of your weed beet and bolters if in doubt 'Pull them out!'
- Listen to the July Beet Cast for a foliar disease update and overview of our cercospora forecasting and monitoring programme.
- 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).
- Visit the BBRO Autumn events to view the 2025 Variety strips, hear more about cercospora and disease control and also the latest information from BBRO work regarding cover crop use.

# ADVISORY

#### **Cercospora leaf spot**

The latest results from the BBRO Spornado spore monitoring network (week 28) show the areas in which cercospora spores have been captured during the week commencing 15<sup>th</sup> July. It also shows that the disease has been identified in the crop at both Heacham and Fotheringhay.

Where conditions are right the spores will enter the crop and spots will appear between 5 to 21 days after infection. This coincides with spore capture at these sites, week commencing 17<sup>th</sup> June and again on the 8<sup>th</sup> July.

Cercospora tends to form small discrete regular circular spots. The centres of the spots are light grey/tan often with black



Cercospora detected in leaf sample (asymptomatic)

Active cercospora lesions visible on crop Dashed circle = Fungicide applied this week

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

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stromata which resemble black pepper grains. The borders surrounding the spots are typically reddish-purple. Cercospora lesions are initially more regular circles but as the disease progresses, individual lesions coalesce with others to form more irregular shapes.

The fungus needs warmth and humidity for disease development which is relatively gradual, up to about 25°C, but growth goes into exponential increase at higher temperatures. Cercospora development is relatively suppressed at low humidity, even when temperatures are quite warm. The current Cercospora Risk Forecast (based on predicted weather conditions) has been low. However, there may still be pockets of humidity in the crop, so please be vigilant.



Fig 3: Early cercospora development

However, when we have days with humidity of more than 90% for 10-15 hours per day, the disease becomes more active, even at lower temperatures.

The BBRO Cercospora Risk Forecast is based on the interaction between temperature and humidity to estimate a 'daily infection value' (DIV). The DIV is related to the likelihood of symptoms developing in the crop and has been extensively validated by assessing early Cercospora symptoms (categories ranging from no spots per leaf to >50 on a sample of 100 plants) in relation to temperature and humidity in commercial plots.

#### For example:

Two-days at 20°C/10 hours high humidity has a DIV (summed over two days) of 4. Two-days at 24°C/15 hours high humidity will have a DIV (summed over 2 days) of 8. Therefore, the cooler nights we have experienced have reduced the humidity levels over the two-day period.

The 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.

#### Foliar disease and control

Keep a very watchful eye for the development of foliar disease symptoms in your crop. For crops destined to be harvested later in the season this is a key stage for ensuring canopies are well protected. Remember to adhere to harvest intervals for crops likely to be harvested in September and early October. Please refer to the list below of current

available products. Also, a summary of the 2023 commercial product fungicide trial can be found in the latest Beet Review.

Product	Max No. Apps	Max Ind. Dose I or kg ha/yr	Max Total Dose I or kg ha/yr	Active (sulphur)	Active (triazole)	gail orkg	Active (strobilurin)	gail orkg	Active (SDHI)	gail orkg		Water Volume I/ha	Spray Quality
Angle, Priori Gold	2	1	NS		difenoconazole	125	azoxystrobin	125			35	200-400	Medium
Caligula	1	1.2	1.2		prothioconazole	125			fluopyram	125	7	200-300	Medium
Impact	1	0.5	0.5		flutriafol	125					28	Min 200	Medium
Kumulus DF, SO LFA	2	10	NS	sulphur							End Aug	Min 250	Medium
Microthiol Special	2	10	NS	sulphur		800					En d Sept	200-600	Medium
Revystar XE	2	1.0	NS		mefentriflucona- zole	100			fluxapyroxad	47.5	28	150-400	Medium
Thiopron (be aware of buffer zone restrictions)	2	9.7	NS	sulphur		82.5					NS	200-600	Medium
Twist	2	0.25	NS				Trifloxystrobin				21	min 200	Medium

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).
- Cercospora leaf spot appears to be an increasing problem in the UK and strains of this fungus are potentially resistant (due to Qol 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.
- 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.

#### 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 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 <u>pre-flowering</u> 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

#### 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. <u>Further information available here.</u>



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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 1<sup>st</sup> September 2024 - 31<sup>st</sup> May 2025. To claim these points please email <u>nroso@basis-reg.co.uk</u>.