



Issued: 26th July 2022



IN BRIEF

- Light patchy rain has done little to alleviate the water stress and crops continue to suffer. The difference between crops on light, thinner soil and deeper, more moisture retentive soil is becoming more exaggerated. Some of the more resilient soils are also now beginning show signs of stress.
- Experience shows that sugar beet is remarkably resilient and retains the ability to recover and regenerate canopy growth with rain and cooler temperatures. This will provide some compensatory root and sugar yield improvement. Application of some trace elements may assist canopy regrowth, especially on lighter land. This will be most effective when applied in period of active growth.
- Reports of symptoms of rust and powdery mildew in crops are beginning to increase. First (T1) fungicides have been applied to some crops. Continue to monitor crops closely for foliar disease symptoms. Remember to use a strobilurin/triazole-based fungicide where rust and powdery mildew are active. Flutriafol is not active against these diseases.
- Cercospora – no high-risk red warnings have been recorded across the main beet growing areas but there is a general increase the daily infection values. There was high risk recorded in the Chesterfield area (Derbyshire postcode areas S41,S42,S43 S44). This was linked to rain in these areas. Any increase in rainfall will clearly increase the risk of cercospora as well as other diseases.
- Avoid applying fungicides to crops which are severely wilted, especially in the hot part of the day as they will be relatively ineffective. If a fungicide is required in the current drought conditions, target an early morning application whilst the crop is 'standing-up' and there is some active growth to take-up the fungicide.
- Cruiser SB treated seed- if you drilled Cruiser SB treated seed in 2022, it is important to remember that there are strict stewardship scheme requirements with which you must comply. Details are provided below.



ADVISORY

Drought

Symptoms such as leaf yellowing, senescence, and nutritional deficiencies (e.g. magnesium) are becoming more evident across all soil types. Severely stressed light-land crops have lost many of their lower leaves.

Yield losses trials have indicated that when soil water deficits are in the order of 100-200mm, yield losses on sandy soils can be in the order of 20-30t/ha and sandy loam soils 10-25t/ha. Remember, this is before any compensatory canopy regrowth and later season yield progression. More detailed information on drought response and irrigation of beet can be found in the BBRO Research section on the BBRO website: [Economics of sugar beet irrigation in England, Cranfield Water Science Institute, January 2018](#)

Crops which have lost their lower leaves are likely to produce new growth when favourable conditions return. This may involve some remobilisation of sugar from the root. This will be replenished in time but be wary of this effect in early harvested crops. Crops may warrant leaving longer.

Crops which have lost significant amounts of canopy may benefit from some foliar trace elements such as magnesium, manganese and possibly boron, particularly on very light land when they begin to regrow. Remember to keep any new growth protected with fungicides to ensure canopy remains healthy and productive.

Foliar disease

As the incidence of foliar disease increases, it is important to check crops closely for early symptoms. Wait for the first symptoms to show before applying a fungicide. If the foliar disease pressure is high and the crop is partially wilting (and rain is forecast) whilst efficacy may be compromised, it may be necessary to apply a fungicide to control disease. Target application in a cooler period of the day when the crop is under less stress.

Secondary symptoms of alternaria are present in some crops and these may be linked to virus yellows infection and /or senescing leaves. This might be mis-diagnosed as cercospora. It is vital to check each individual crop for foliar disease symptoms BEFORE deciding whether to apply a fungicide. Do not be tempted to start a fungicide programme based on what is being reported in other crops!



Fig 1: Early signs of rust 2022



Fig 2: Alternaria (2020 photo)



Fig 3: Cercospora (2021 photo)

Some higher daily cercospora infection values have been recorded but only a very few red warnings were triggered in the Derbyshire area where there was rain. However, the risk of cercospora will

increase further east when we (eventually!) have more rain and the leaf wetness and in-canopy humidity increases. Patchy and thundery rain showers may well make this very variable across the beet area. Remember that more sheltered fields may be at higher risk as the humidity and leaf wetness is more persistent.

We have had some questions about the risk of irrigation and cercospora. In most cases, the canopy will dry quickly after irrigation and will not remain wet and humid for long enough to increase the risk significantly. However, it is worth keeping a close eye on irrigated crops for disease symptoms.

Cruiser Stewardship

As the cereal and OSR harvest season progresses, and you finalise your crop rotation planning, please remember that there are strict restrictions on what you can grow following the Cruiser SB treated sugar beet seed in 2022. Be aware that this may affect wider crop rotations and may affect planning for autumn-sown crops,

The following-crop restrictions apply for subsequent crops planted on the same area of land as Cruiser SB sugar beet drilled in 2022.

- 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 2022.
- Cover crops (including mixes) must also follow the 32-month restrictions.

	<i>Non-restricted</i>	<i>Restricted</i>
Rules	<i>No restrictions following Sugar Beet</i>	<i>A minimum of 32 months from drilling of Sugar Beet</i>
Crops	<ol style="list-style-type: none"> 1. <i>Wheat (including Durum Wheat)</i> 2. <i>Barley</i> 3. <i>Millet</i> 4. <i>Sorghum</i> 5. <i>Oat</i> 6. <i>Maize / Corn</i> 7. <i>Rye</i> 8. <i>Triticale</i> 9. <i>Canary seed</i> 10. <i>Spelt</i> 11. <i>Potato</i> 12. <i>Cabbage</i> 13. <i>Kale</i> 14. <i>Swede</i> 15. <i>Lettuce / Babyleaf / Spinach</i> 16. <i>Onions</i> 17. <i>Leeks</i> 18. <i>Carrots</i> 19. <i>Parsnips</i> 20. <i>Cauliflower</i> 21. <i>Broccoli</i> 22. <i>Turnip</i> 	<ol style="list-style-type: none"> 23. <i>Oilseed Rape</i> 24. <i>Linseed</i> 25. <i>Mustard</i> 26. <i>Soya Bean</i> 27. <i>Pea</i> 28. <i>Bean</i> 29. <i>Buckwheat</i> 30. <i>Clover</i> 31. <i>Phacelia</i> 32. <i>Chicory</i> 33. <i>Radish</i> 34. <i>Vetch</i> 35. <i>False Flax</i> 36. <i>Lucerne</i> 37. <i>Sunflower</i> 38. <i>Borage</i> 39. <i>Sainfoin</i> 40. <i>Nyger</i> 41. <i>Lupins</i>

Fodder, energy, and red beet are not included as part of the derogation to ensure the ‘controlled and limited’ element of the Emergency Authorisation.

It has also been made very clear that no further use of thiamethoxam seed treatments (including any re-drilling of treated sugar beet if crop lost due to wind blow or capping) on the same field area for **46 months** from the date of sowing treated sugar beet seed in 2022 – a requirement of the Cruiser SB EA. This is to minimise the risk of any residues being acquired by succeeding bee-attractive crops or weeds and hence exposing bees and/or other pollinators to the neonicotinoid seed treatment.

[To access the full Stewardship document please click here.](#)



EVENTS

BBRO BeetTech23 dates confirmed:

7th February – Newark Showground

9th February – Newmarket Racecourse

Details to follow.



CONTACTS

British Beet Research Organisation, Centrum, Norwich Research Park, Colney Lane,
Norwich, NR4 7G

Prof Mark Stevens mark.stevens@bbro.co.uk 07712 822194

Dr Simon Bowen simon.bowen@bbro.co.uk 07718 422717

Stephen Aldis stephen.aldis@bbro.co.uk 07867 141705

General Enquiries info@bbro.co.uk



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
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 NRoSOCPCD@cityandguilds.com