



Issued: 2nd March 2023

Our fourth Advisory Bulletin of 2023 is dedicated to Virus yellows, aphids, and the use of Cruiser SB seed treatment.

The 2023 Virus Yellows forecast:

The virus yellows forecast was released on 1st March. It is important to remember that this forecasts the proportion of the crop that is expected to show virus yellows symptoms in the **absence** of any control measures. It is a national forecast based on a 30th March sowing date.

- The forecasted incidence of virus yellows for 2023 is 67.5%.
- The date of the first arrival of aphids in crops in 2023 is forecasted from 22nd April.
- The forecasted virus level is above the threshold of 63% required to trigger the use of Cruiser SB on seed in 2023.
- In 2020, the forecast was 85% with a first arrival date of aphids of 24th March. Last year, the forecast was 69% with an expected aphid flight date of 18th April.

Some answers to key questions you may have about the virus yellows situation in 2023

1. Does the virus forecast trigger the use of Cruiser SB?

The forecast of 67.5% is above the threshold of 63% required by the conditions for the Emergency Authorisation on the use of Cruiser SB in 2023. Therefore, Cruiser SB will be applied to seed in 2023, where requested.

2. Are there conditions relating to the use of Cruiser treated seed in 2023

There are several key conditions summarised below that must be adhered to.

- **A maximum seed rate of 1.15units/ha of treated seed.** If there are concerns about poor establishment and a higher rate of seed is required, untreated seed can be used but the rate of Cruiser SB treated seed must not exceed 1.15 units in each hectare drilled.
- **Careful and targeted use of herbicides** is required to minimise the number of flowering weeds in treated sugar beet crops and reduce the risk of indirect exposure of pollinators to neonicotinoids. The use of BASIS recommended herbicide programmes must be adopted by growers and their agronomists. This applies in treated fields only (NOT next to or around sugar beet fields drilled with Cruiser SB seed).
- **Fodder, energy, and red beet are not included** as part of the derogation to ensure the 'controlled and limited' element of the Emergency Authorisation.

- **Strict adherence to the 32-month restriction on the growing of flowering crops (see Table below).** Note that this includes cover crop species. Any crop excluded from the table should be considered 'restricted' i.e., subject to a minimum of 32-month interval from the drilling of Sugar Beet. Agri-environment options that allow flowers to grow or appear must follow the 32-month restriction.

	Non-restricted	Restricted
Rules	No restrictions following Sugar Beet	A minimum of 32 months from drilling of Sugar Beet
Crops	1. Wheat (including Durum Wheat) 2. Barley 3. Millet 4. Sorghum 5. Oat 6. Maize / Corn 7. Rye 8. Triticale 9. Canary seed 10. Spelt 11. Potato 12. Cabbage 13. Kale 14. Swede 15. Lettuce / Babyleaf / Spinach 16. Onions 17. Leeks 18. Carrots 19. Parsnips 20. Cauliflower 21. Broccoli 22. Turnip	23. Oilseed Rape 24. Linseed 25. Mustard 26. Soya Bean 27. Pea 28. Bean 29. Buckwheat 30. Clover 31. Phacelia 32. Chicory 33. Radish 34. Vetch 35. False Flax 36. Lucerne 37. Sunflower 38. Borage 39. Sainfoin 40. Nyger 41. Lupins

3. **How long will Cruiser SB treatment protect my crops?**

Use of Cruiser SB seed treatment will protect crops for up to 10 weeks from drilling, as seen in commercial crops in 2022. Therefore, for crops drilled on different dates, the period of protection will be approximately as follows:

Drill date

15th March - 24th May
 30th March - 8th June
 10th April - 19th June

Also, as part of the Virus yellows forecast, the anticipated first aphid arrival date is 22nd April. Cruiser SB will provide good protection against virus transmission from the early influx of aphids.

4. **Will I still need to use foliar insecticides where I have used Cruiser SB treated seed?**

Depending on aphid numbers in late April, May and early June, Cruiser SB treated crops may require additional foliar insecticides. It is recommended to start monitoring Cruiser SB treated crops for aphids from 8 weeks after drilling.

5. **Will non-Cruiser treated seed need foliar insecticides?**

Non-Cruiser SB treated crops are at risk of virus infection and will need careful monitoring for aphids from mid-April onwards. Crops will need foliar insecticides where the thresholds are exceeded. The threshold for foliar insecticide treatment is: **1 green wingless aphid per**

4 plants up to the 12-leaf stage (please check a minimum of 20 plants per area – 5 aphids per 20 plants). After the 12-leaf stage the threshold is 1 green wingless aphid per plant.

6. How should aphid numbers be monitored in 2023?

- BBRO will be undertaking comprehensive aphid monitoring of crops in this period and will be assessing thresholds for foliar treatments. This information will be available on the BBRO website and regularly updated. It is recommended that you view the latest information at least twice weekly and use these as a guide as to when you should check your own crops.
- However, it is also **essential that you assess aphid levels in each of your sugar beet crops** so any foliar insecticide can be carefully targeted to provide effective control of aphids. BBRO will be providing information on how to assess your own crops as well as guidance on aphid identification.

7. What foliar insecticides can I use and in what sequence?

In Cruiser SB treated crops, two foliar insecticides are available and must be applied in the sequence **T1 Teppeki**, followed by **T2 Insyst**.

In non-Cruiser SB treated crops the same options are available but there is no restriction in sequence of use. An EA for a third aphicide is being progressed. Further information will be available once this decision has been made.

Avoid using pyrethroids where at all possible, especially in the early phases of crop growth. Not only are aphids highly resistant to pyrethroids, but their use will also impact on the build of beneficials such as lacewing and ladybird larvae.

8. Will mature plant resistance help with reducing virus transmission?

As crops develop, they begin to acquire mature plant resistance (MPR) to virus transmission. From about the 12-leaf stage, aphid multiplication is gradually reduced therefore reducing the further spread of virus both within and between crops. The 12-leaf stage is reached approximately **40-50 days after emergence and when the crop is about 50% crop cover**. However, this depends considerably on growing conditions such as temperature and soil moisture and variety growth habit. It is difficult to predict this precisely.

BBRO will monitor crop development in respect of mature plant resistance growth stages. As a guide and using average seedbed and growing conditions, a crop drilled in the last week of March would reach the 10-12-leaf stage in early June. The Cruiser SB 10-week period will be close to elapsing at this stage so it is likely that in some situations crops will still be at a susceptible growth stage and will require continued aphid monitoring for threshold and foliar insecticide protection.

9. What other actions can I take to reduce aphid numbers and virus transmission in 2023?

Destroy all sources of virus on farm.

Make sure there is no leaf growth on roots left behind at clamp sites or growing from root fragments in spoil heaps. Check previous sugar beet fields for groundkeepers (especially

where there was frost damage last season) and spray off any new growth. Any neighbouring fodder beet clamps with active leaf growth may also be a source of virus. Ensure all pre-sugar beet cover crops are fully destroyed. This should have been completed by now to ensure a minimum 4–5-week gap before drilling sugar beet.

Ensure rapid and even crop emergence.

Take time with seedbed management to ensure seed is drilled early into warming soils with moisture and a friable soil structure. Avoid cultivating when too wet and forming lots of clod or alternatively over drying by multiple cultivation passes. Emergence and seedling development will be slow in cold dry cloddy seedbeds. Be careful when applying herbicide to avoid any damage to beet and a check in their growth. When crops reach the 2-4-leaf stage be ready to apply foliar nutrients to drive rapid canopy establishment. Make sure the crops have at least 30-40kg of available nitrogen from drilling onwards. Placing nitrogen can help advance crop development but ensure placement is in the right area (below and to the side of seed)

Encourage beneficials.

Aphids are expected to arrive in crops towards the end of April and it is challenging to ensure synchrony of sufficient number of beneficials at this time. However, as aphid populations increase, beneficials can be highly effective in controlling aphid numbers. Make sure field margins are maintained and not damaged during cultivations and drilling. If you are considering establishing beneficial strips across the field, they need to be at regular intervals across the field to maximise their value as beneficial insects appear to migrate relatively short distances of 10-20m from these strips. Try to include quick-flowering species such as Sweet Alyssum, Annual Phlox and Cornflower. Seed into warm soil with sufficient moisture present. Roll if required to preserve moisture.



EVENTS

BEETCHAT – virtual online growers meeting

Join us 2nd March 13:00 – 14:00 for an informal meeting regarding the Virus yellows forecast and general sugar beet update.

Got a question?
Join our on-line discussion session

British Beet
BBRO
Research Organisation

BeetChat
Thursday 2nd March:
13:00 - 14:00
Preparing for 2023 sugar beet
season including Virus yellows forecast

[Click here for easy access](#)

The poster features a green background with a photograph of a sugar beet field. A cartoon beet character with a smiling face and a crown is positioned on the right side. The text is arranged in a clear, readable layout, providing all necessary details for the event.



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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 NRoSOC PD@cityandguilds.com