BBRO Advisory Bulletin



Issued: 11th April 2024

Ö IN BRIEF

- Drilling is underway across most of the beet growing area. Rainfall is still having some impact but those crops in the ground are emerging well.
- Soil conditions are changing very quickly with diverse weather conditions, cultivation timings will be critical as seedbeds dry out quickly, monitor each field closely after tillage passes.
- Rolling is an option for cloddy seed beds if soil conditions continue to dry out quickly, ensure soil is friable before rolling to prevent compaction around the seed.
- The first winged Myzus persicae aphids have been caught in the Broom's Barn suction trap three weeks earlier than predicted. The BBRO aphid monitoring programme has commenced, with the website going live next week. Please be aware there will be some blank sites where the crop has not yet been drilled.
- Select appropriate seed rates in line with expected establishment. Remember Cruiser SB treated seed must be drilled at a maximum rate of 1.15 units/ha. Ensure all drill operators are aware of the guidelines associated with the use of Cruiser SB treated seed, particularly ensuring all drilled seed is covered. If drilling into fields or areas of fields such as headlands with a poor seedbed, consider using a higher seed rate, and again ensure seed coverage.
- Non-Cruiser crops will need monitoring from emergence but with only 2 insecticides currently available, careful management is essential to ensure the best protection. Currently, InSyst should be used as the first spray for non-treated crops. Further guidance will be issued once emergency authorisation decisions are known.
- Please do not use pyrethroid insecticides for aphid control on sugar beet as over 80% of the UK peach-potato aphid population are currently resistant to these products. Pyrethroids can also have a negative impact on beneficial insects too and these will be crucial in limiting the spread of virus yellows this year.
- As crops emerge they will require access to nitrogen and post-emergence herbicides will need to be applied (especially as weed germination will be quick in the warm, moist conditions).
- Make sure all farm staff are aware of the stewardship requirements for Conviso varieties of sugar beet, in order to protect the chemistry from resistance issues.
- There are now a large number of options for seed pellet choice, so it is essential to check the information on the seed boxes and ensure that a record is kept of where varieties are drilled.

Aphid update

The first *Myzus persicae* were caught in the Rothamsted suction trap between the 18th-24th March (before daily sampling began on the 1st April). This is much earlier than predicted (10th April) and earlier than seen in 2020.

Non-Cruiser treated crops

Early aphid flight is of particular concern to those growers using non-Cruiser treated seed, as in many areas the crop has yet to emerge. Therefore, non-Cruiser crops need close monitoring and careful management as currently there are only 2 sprays available for use. Timely application is essential and must coincide with the threshold (1 green wingless aphid per 4 plants). We recommend checking a minimum of 20 plants per area, spraying only if 5 or more green wingless aphids are found on these plants. If threshold met, then InSyst should be the first spray for non-treated crops. A flonicamid based product (Affinto or Teppeki) would then be second spray. We have applied for an Emergency Authorisation for a **third** spray which if approved could allow for a second treatment of InSyst.

Stewardship of Cruiser SB crops

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. It is essential to make accurate records of where all Cruiser SB treated seed is drilled within fields.
- 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. Ensure all drill operators are aware of the <u>guidelines associated with the use of Cruiser SB</u> <u>treated seed</u>, particularly ensuring all drilled seed is covered.
- No thiamethoxam seed treatment i.e. Cruiser SB may be used on the same field area for 46 months from the date of sowing treated sugar beet seed in 2024.

The following-crop restrictions apply for subsequent crops planted on the same area of land as Cruiser SB sugar beet drilled in 2024. This is also relevant for any fields that had Cruiser SB treated seed in 2022 or 2023.

- 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.

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

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

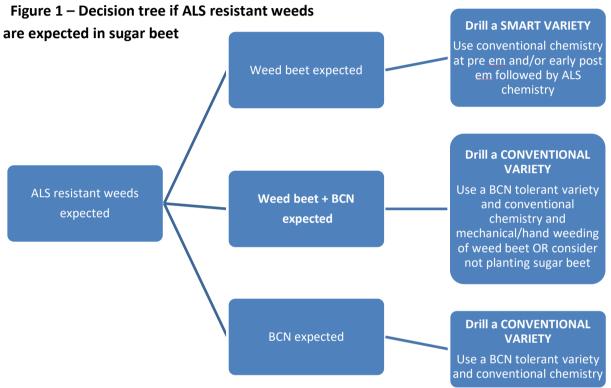
Nitrogen fertiliser

Remember to ensure that there is sufficient fertiliser available at, or soon after drilling to support early seedling leaf growth. A 60/40 split is recommended with the first application at drilling and follow up application at full emergence. If applying 120kgN/ha total this equates to 70kgN/ha at drilling and 50kgN/ha in the follow up application. This is really important this year as the soil conditions are suitable for fast growth/establishment. Remember to tailor your total nitrogen to the soil nitrogen supply index, especially where organic manures and/or cover crops have been grown. On nitrogen index 0 or 1 soils, 120 kg N/ha is required to optimise yields whereas, on index 2 and 3 soils, 100 and 80 kg N/ha are required respectively.

Weed Control section (supported by Pam Chambers, British Sugar)

Acetolactate synthase (ALS) resistance in sugar beet

Annual broadleaved weed (ABLW) herbicide resistance to ALS chemistry in sugar beet has not been recognised as a problem unlike in other crops such as cereals. However, last year a few fields of sugar beet exhibited poor control of poppies and chickweed, and testing indicated the presence of resistance. Historically the practice of tank mixing herbicide actives within sugar beet herbicide programmes will have masked any resistance issues. The current ALS actives used in sugar beet are Debut/Shiro (triflusulfuron-methyl) and Conviso One (foramsulfuron + thiencarbazone). If you suspect ALS resistance in any fields drilled or due to be drilled with sugar beet then consult the decision tree below and take into consideration beet cyst nematode (BCN) and weed beet. There is information regarding resistance management in Stewardship Guides produced by KWS UK Ltd, Bayer Crop Science and Betaseed.



First post emergence herbicides are being applied

As crops emerge, careful monitoring of beet and weed growth stages, alongside weather conditions, is required. This attention to detail will ensure the best possible control whilst minimising the risk of any physical impact on crop growth. Minimum beet growth stages for different products range from: no restrictions, expanded cotyledons, 1st pair of true leaves at least 1cm long to 1st pair of true leaves fully expanded. Paying attention to these will minimise any checks on your crops.

On Wednesday morning the 10th April a frost occurred in the Waveney valley on the Norfolk/Suffolk border and strong winds have also been in evidence. Check beet for any signs of damage before applying the first post-emergence sprays. The worst time to spray is the first morning after a frost or severe wind on emerging beet, by the following day they have generally hardened off. This was apparent last season where 24 hours delay in spraying showed a huge difference in crop effects from herbicides, those sprayed within a

few hours of wind blow suffered badly but those sprayed the next day exhibited little damage.

Cranesbill control

With the availability of dimethenamid-P as in Tanaris/Topkat (dimethenamid-P + quinmerac) cranesbill control has become much easier. Post-emergence sprays should be targeted at the cotyledon stage of the weed, not when true leaves become apparent, remember to include a tank-mix partner as Tanaris/Topkat on its own has a limited weed spectrum.

Fat-hen, Orache and Fig-leave goosefoot control – the chenapodium weeds!

Where chenapodium weeds are known to be a problem then ensure metamitron is included in the programme, it should work well with the current moist conditions. Where feasible include metamitron as a pre-emergence spray as well as at post-emergence timings. Do not rely on just phenmedipham and ethofumesate for controlling these weeds, they are useful under the right conditions but the inclusion of metamitron is essential to build up a residual effect. Poor control of chenapodium weeds is generally due to insufficient metamitron being used, spray intervals being too long, final sprays going on too early. Don't forget to include an adjuvant for post-emergence sprays.

Adjuvants

- Check to see if approval for use with a beet herbicide is specified on the adjuvant label.
- Check the growth stage specified on the adjuvant label, for many adjuvants, if the beet crop has more than 6-leaves then the rate of the herbicide being used should be reduced.
- Check the maximum concentration (% of spray solution) that applies to the adjuvant being used as these vary.

Vary the rate of mineral oils according to temperature. Do not use mineral oils above 20/21° C. If crops are stressed especially in warm and dry conditions, be wary of adding manganese and nitrogen in with the herbicide as this can be cause a check in growth.

Sugar beet pellets 2024

All seed is treated with tachigaren (hymexazol) which protects the seedling from seed and soil-borne diseases. There are now a large number of options for seed pelleting, so it is essential to check the information on the seed boxes and ensure that a record is kept of where varieties are drilled. It is not possible to tell from examining Ultipro or EPD2.0 treated seed if it has received a Cruiser treatment. The table below gives a summary of the pellet types available and there is also information in the <u>Seed Information Pack 2024/25</u>

Source	Colour	Treatment	Comments
Betaseed	Green*	Force	BTS 1915 also
Ultipro		Crusier SB and non Cruiser SB	available as Germains
			pellet
	Green*	SMART varieties & Force	BTS 9485
	(purple interior)	(tefluthrin)	
		Cruiser SB and non Cruiser SB	
Cormains	Green*	Force (tefluthrin)	Seed that is pelleted
Germains Enrich 200 & 300	Red	Cruiser SB	with Germains
	Pink	Standard – tachigaren only	treatments
	Orange	Cruiser SB and non Cruiser SB	Varieties also
			available as Germains
KWS EPD2.0			pellet
	Orange	SMART varieties	Only available as
	(purple interior)	Cruiser SB and non Cruiser SB	EPD2.0 pellet.
SESVANDERHAVE	Blue	Force (tefluthrin)	Wren and Osprey Not
SV1		Non Cruiser SB	available with Cruiser
			SB as an SV1 pellet.
			They are available
			from Germains

Note:- *Betaseed and Germains are a similar green.



BeetField24 - May

14th May am - Morley, Norfolk 14th May pm - Yaxley, Suffolk 15th May pm - Baston, Peterborough 16th May am - Selby, Yorkshire

2024 is forecast to be a high aphid and therefore virus year. It is vital that growers know how best to manage their own crop as every farm situation is different.

> Aphid & Virus special Plus: Plant Clinic, weed control and ALS resistance management Book: www.bbro.co.uk/events



Booking is now open for the BBRO Spring Demo Farm events, click button below.



O CONTACTS

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O BASIS POINTS

Two BASIS points in total (not per bulletin) have been allocated for the period between 01/06/23 and 31/05/24 reference CP/126447/2324/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. To claim these points please email <u>nroso@basis-reg.co.uk</u>.