



Issue 14: 5th January 2026

Frost impact

Most growers experienced quite sharp frosts over the last few days, whilst the initial damage may have been minor, a sudden rise in temperature could accelerate the rate of deterioration. It is therefore important to check your crops in the next couple of days as the extent of damage may not have been obvious at the start of the week.

Summary

- Check every field. Don't assume they have reacted to the cold weather in the same way, e.g. snow cover and canopy size can have a big impact.
- Dig and slice roots across the whole field, concentrating in low lying areas and where the sun has not come into contact with beet i.e. under hedgerow and treelines.
- Frost damaged roots once lifted should not put into long term storage, make sure your haulier can deliver before you lift any damage roots.
- Keep checking fields and clamps for any further deterioration, particularly in fluctuating temperatures
- Where high levels of damage are found lowering the scalpels during harvesting to remove frost damaged crowns
- Harvest with care to reduce further damage
- Keep time between lifting and delivery to a minimum
- [BeetCast January: Keep it clean in 2026 \(click to access\)](#)

On-farm hygiene has always been an important part of sugar beet management but with increasing threats and climate change it has become a priority for all involved.



ADVISORY

Frost risk

- Cold weather will increase the risk of frost damage to sugar beet. Freezing temperatures followed by sudden thaws can cause the deterioration of roots.
- Crops in clamps are likely to be most susceptible to frost damage. Maus clamps with a higher surface area may be more prone. Crops still in the ground may be at lower risk but this will depend on the extent of insulation provided by canopy leaf growth. Gappy crops and those affected by foliar disease or beet moth (where there is less leaf cover to protect them) will also be more susceptible.
- Beet tends to freeze at temperatures at -3°C and below. However, the susceptibility to frost damage will be highly variable from field to field and even between plants within a field. Sources of variation may be different air temperatures and duration of low temperatures, acclimation due to prior cold exposure and stress history of the crop, and of course the extent of top leaf cover. The following chart highlights how the severity of damage increases with duration and intensity of freezing temperatures.

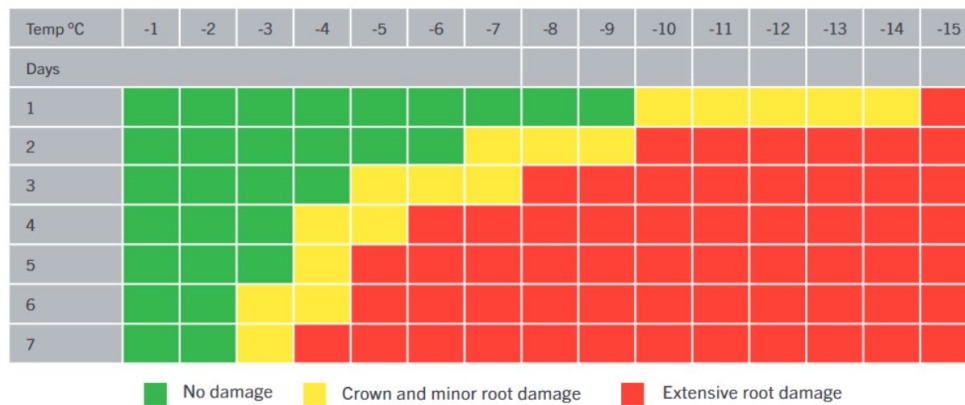


Fig 1: Damage increases due to severity and length of cold period.

- Recent temperatures will have increased the risk of frost damage, but in many fields, conditions will have been borderline for more extensive damage.
- Some harvesters are unable to harvest as the ground is just too hard. Where the ground is frozen and has not thawed in the day, there may be no symptoms showing. Cold conditions appear to be set for the week with some warmer temperatures at the weekend when we will see a greater thaw and the extent of any damage will become more visible.
- It may be worth checking crops. Check the crown of the beet to see if it is frozen. Digging and then slicing some roots into sections and then letting them thaw for a few hours, this should reveal the extent of damage.

Frost damage

Symptoms of frost damage will be visible when beet have thawed following freezing. Damage will be more apparent from the crown down through the root and will depend on the extent of freezing. Damage is due to rupturing of the cells. On thawing, a frosted root will take on a translucent glassy appearance with the vascular rings more prominent and may have a brown/black discolouration. Frost damage may be followed by secondary rots caused by fungi and bacteria this will be more severe the warmer the temperatures are following frost damage. However, not all frosted beet will deteriorate, and in some cases, beet will stabilise but may have a lower sugar content and higher impurity level.

Assessing levels of frost damage- as temperatures are forecast to remain low for the rest of the week, it will take a while for any symptoms to show fully. Organise a programme of checks across roadside piles, any longer-term clamps, and crops in the ground to get a complete picture as possible. Keep checking for symptom progression when temperatures increase.



Fig 2 (right): Discolouration of frost damaged area clearly visible



Figure 3: Glassy appearance of root crown



Figure 4: Glassy and prominent vascular rings



Fig 5: Sliced sections of root to assess extent of damage

Reduce risk of frost damage - whilst the risk of frost remains, focus on clearing roadside stock rather than increasing harvested crops, as beet will be more protected in the ground. Make sure any longer-term clamps have level tops to avoid frost pockets from forming and ideally consider covering clamps, if possible. Do not store frosted beet into longer-term storage clamps.

If the crop shows signs of deterioration, you may want to consider lowering scalpings to remove more of the crown. Careful consideration must be taken to ensure there is a net benefit to crop yield and not an excessive loss of sound roots. Also, skim clamps to remove deteriorated beet before delivery.

Communications - keep in close contact with your harvester operator, haulier, and your British Sugar Account Manager on any potential issues.

Can you help us find past Sugar Beet Reviews?

Sugar Beet Review was first published in the 1930's with the last edition being issued in September 2025. BBRO currently house a back catalogue of the magazine with the exception of 3 copies. Please can you help us locate these missing issues:

Year	Volume	Issue Number	Issue Timing
1988	56	1	Spring
1989	57	1	Spring
1990	58	2	Summer

Once complete the full set will be bound to ensure it is available for many years to come. Please contact us at info@bbro.co.uk if you can help.



EVENTS

Please join us at our forthcoming BeetTech events both of which will be followed by Drill operators training. Please click on images below to book.

BeetTech26 Detail delivers

Session 1: BEET BOX TALKS

Four short practical sessions on the 'must knows' for 2026 season

On-farm hygiene
Dr Kate Orman & Stephen Aldis

Aphid monitoring
Dr Alistair Wright & Rothamsted Research

On-farm trials
Dr Georgina Barratt

How much should we spend on weed control
Pam Chambers (British Sugar)

Session 2:

**Guest Speaker
Prof Simon Pearson
Agri-Tech and Beet**

Your Recommended List
Prof Mark Stevens
Beet moth strategy
Dr Alistair Wright & Eleanor Towler
Beet your Best
Dr Alistair Wright, Dr Georgina Barratt, Stephen Aldis & Prof Mark Stevens

Tuesday 3rd February - Norfolk Showground
Tuesday 10th February - Newark Showground
8:30 arrival for 9am start, 12:45 finish

Followed by optional Drill Operator Training commencing at 13:30

BOOK: www.bbro.co.uk



Special afternoon session to follow
BeetTech events:
DRILL OPERATOR TRAINING
for better establishment and improved crop performance





A successful sugar beet harvest begins with the preparation of the seed bed and ensuring optimum performance of both drill and operator.

This course is open to all sugar beet drill operators, providing the basic principles of drill set-up for all models.

Sessions to include:

- Practical soil management
- Cultivation techniques for the perfect seed bed
- Pelleting and seeds
- Drill maintenance for optimum performance

Book online at: www.bbro.co.uk/events

Tuesday 3rd February 2026 - Norfolk Showground
Tuesday 10th February 2026 - Newark Showground

Arrival 13:00, commence 13:30-16:00
Lunch will be provided
Presentations and practical support from BBRO and partners:








CONTACTS

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

Prof Mark Stevens	mark.stevens@bbro.co.uk	07712 822194
Francesca Broom	Francesca.broom@bbro.co.uk	07710 285689
Stephen Aldis	stephen.aldis@bbro.co.uk	07867 141705
General Enquiries	info@bbro.co.uk	01603 672169



BASIS POINTS

Two BASIS points in total (not per bulletin) have been allocated for the period between 01/06/2025 – 31/05/2026 - 188556298463. To claim these points please email cpd@basis-reg.co.uk

Two NRoSO points in total (not per bulletin) have been allocated from 01/06/2025 – 31/05/2026 **NO505881f**. To claim these points please email [nrroso@basis-reg.co.uk](mailto:nroso@basis-reg.co.uk).