

Using brassicas to out-winter cattle

Helen Mathieu, Germinal GB (formerly British Seed Houses)

I have been working with beef and dairy farmers for ten years who use brassicas to extend the grazing season or for out-wintering.

The top tips that have emerged over that time are:

1. Crop selection is crucial

This will depend on when the crop will be fed, the number and type of stock that need feeding and when the land intended for growing the crop becomes vacant, eg after first cut silage or after cereal harvest.

The most suitable brassicas for grazing during the winter months are kale, swedes and certain multi-graze rape/kale hybrids. Stubble turnips, grazing turnips and forage rape are less winter hardy, but are ideal for extending the grazing season to the end of the year.

Fodder beet, although not a brassica, is a higher input but higher yielding crop, which can be lifted and fed elsewhere, or grazed in situ.

Avoid brassicas that are sold for use as game cover as they have a greater proportion of stem, making them less suitable for grazing.



2. Field selection and preparation are also crucial

Think how the crop will be grazed before drilling. Careful field selection is critical to minimise the risk of soil poaching and runoff. Avoid poorly drained heavy clay soils or steep slopes and fields near watercourses. Think about the provision of water and a run-back area. Design access to allow gradual introduction of the stock. Only use fields that can be easily divided into grazing areas.

The feed fence needs to provide long, narrow strips that run across any slopes. Grazing should start at the top of the field to make sure any run-off is captured by the standing crop. It is also easier to move the animals down the hill.

Avoid vehicles travelling in the field during winter by putting out bales when ground conditions are more suitable, eg in early autumn. Around 30% of the intake of the animals needs to be fibre, eg straw or silage, so bales need to be placed across the field to allow even access.

A good way to do this is to store silage bales along the side of a field after the grass has been cut and wrapped. The field can then be sprayed off and direct drilled with kale and individual bales opened as the brassica crop is grazed in strips across the field.

3. Use brassicas as a break crop

Brassicas are likely to be most cost-effective when they are used as a break crop within an arable rotation or between grass re-seeds. Fields with suitable soil conditions where grass production is falling could be good candidates.

Remember in the new CAP greening rules, a brassica break crop means the field is classed as an arable field.

4. Feed the crop

Brassicas are more cost-effective when yields are maximised, so it is important to feed them.

The field should be soil tested at least eight weeks before sowing and adjusted if needed. Lime is important as brassicas are very sensitive to pH (optimum 5.8-6.5).

Example fertiliser application rates and timings for different crops

Crop	Nitrogen (N) (kg/ha)	Phosphate (P) (kg/ha)	Potash (K) (kg/ha)	N applied at sowing (% of total)	N applied later (% of total)
Swedes	40–100	45–100	80–215	50%	50% at 10–12 weeks
Kale	40–130	50–80	130–260	50%	50% at 10–12 weeks
Stubble turnips	40–100	25–85	20–110	60%	40% at 6–8 weeks
Grazing turnips	40–100	25–85	20–110	100%	Further N may be applied for regrowth
Forage rape or rape/kale hybrid	40–100	25–85	20–110	100%	Further N may be applied for regrowth

100kg per ha equals 80 units per acre. (Source: Defra Fertiliser Manual (RB209) – and British Seed Houses)

5. Realise some animals may not be able to cope

It is important to identify animals that will not eat brassicas and manage them separately on a different system. Only healthy animals in good body condition with fully functioning rumen (preferably above 200kg liveweight) should be considered for out-wintering. Do not out-winter in-calf heifers or old or thin cows.

Breeding cows in late pregnancy should not be grazed on brassicas, to avoid the risk of calving in an unsuitable environment.

There are some health risks associated with using brassicas (eg bloat, nitrate poisoning or goitre) and some of them can be avoided by making sure animals are introduced gradually to a non-growing crop, have access to fibre and trace elements.

More information is available in the EBLEX Better Returns programme manual [Using Brassicas for Better Returns](#) or from [Germinal GB](#)