

## Using brassicas for better returns

Brassica crops such as kale, forage rape, grazing turnips, stubble turnips, swedes and new rape/kale hybrids can provide nutritious, cost-effective feeds for beef cattle. They can increase output per ha, both in terms of dry matter (DM) intake and animal performance. Outwintering on brassicas can also allow more animals to be kept, with minimal extra capital investment in buildings.

These crops do not fit into every system, and site selection is crucial, especially when used for outwintering. However, many producers could potentially benefit from introducing them onto their farm.



### Feeding brassica crops

Some nutritionists recommend brassicas should not make up more than 50% of an animal's dry matter intake. Overfeeding can lead to reduced intake and performance, with health problems such as iodine deficiency and anaemia becoming a risk. Brassicas should always be fed with *ad libitum* (*ad lib*) fibrous forage such as straw, silage or hay to improve rumen 'scratch factor'.

### Strip grazing

The key to successful feeding with brassicas is to strip graze using an electric fence to maximise crop utilisation. Each strip (break) should be long and narrow but allow all animals access to the crop at once, including the most timid animals.

It is important to introduce the stock to the crop slowly and on full stomachs; this will help to avoid digestive upsets. Start by allowing the stock access to the crop for one to two hours a day, building up to unrestricted access after seven to ten days.

### Making fibre available

Livestock grazing brassicas must have access to hay, straw or grass to graze to promote saliva production and healthy rumen function. Bales placed in the field during the summer reduce the need for machinery to go into the field during the winter, minimising soil compaction and runoff from wheelings.

Cattle should always have access to minerals whilst grazing brassica crops. Brassicas are high in calcium which may predispose pre-calving cows to hypocalcaemia if they are not fed low-calcium forage, such as straw or hay at the same time.

Brassicas are moderate to low in phosphorus and magnesium and, therefore, dry cow rations may require additional phosphorus and magnesium to meet the animal's requirements in late pregnancy. They are also low in trace elements, particularly copper, iodine and selenium.

## Feed value

The energy content of leafy and root brassicas is typically higher than that in other forages, and similar to that in concentrate feeds and cereals. They have a readily digestible carbohydrate content but are low in fibre, which is why they should be fed with a fibre source such as straw or hay to prevent rumen acidosis or bloat.

Table 1: Typical nutritional analysis of a range of brassicas

|                  | Dry matter (%) | Digestibility (D-value) | ME (MJ/kg DM) | CP (% DM) |
|------------------|----------------|-------------------------|---------------|-----------|
| Swedes           | 17-20          | 87                      | 12-13         | 10-11     |
| Kale             | 15-17          | 80                      | 10-11         | 14-17     |
| Stubble turnips  | 12-15          | 85                      | 10-11         | 17-18     |
| Grazing turnips  | 12-15          | 75                      | 10-11         | 17-18     |
| Rape/kale hybrid | 12-15          | 80                      | 10-11         | 18-19     |
| Forage rape      | 10-12          | 80                      | 10-11         | 19-20     |

### Top tips for feeding brassicas to cattle:

- ⇒ Identify animals that will not eat brassicas and manage separately on a different system
- ⇒ Do not feed brassicas to cows close to calving
- ⇒ Only healthy animals in good body condition should be considered for outwintering
- ⇒ Do not outwinter in-calf heifers or old/thin cows
- ⇒ Foot trimming before the feeding period will minimise lameness
- ⇒ Beef cattle must be fully functioning ruminant animals before they can be reared on brassicas, preferably above 200kg liveweight.

For more information on growing and feeding brassicas see the Better Returns Manual  
[Using Brassicas for Better Returns](#)