



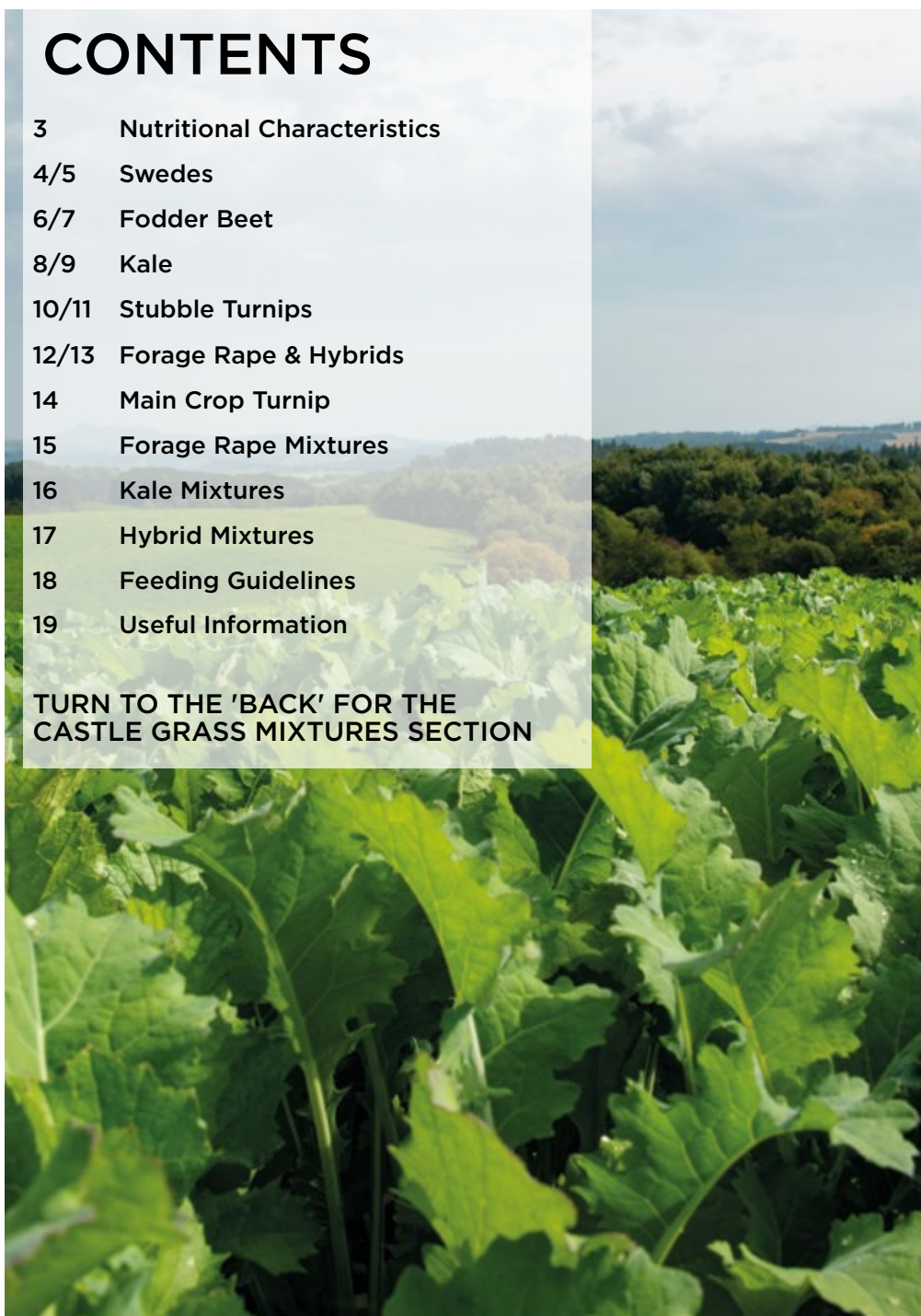
WATSON SEEDS

# ROOTS & FORAGE GUIDE

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**TURN TO THE 'BACK' FOR THE  
CASTLE GRASS MIXTURES SECTION**







Rising feed costs have brought about renewed interest in forage crops.

Forage crops have the potential to produce very high yields over a short growing season, combined with a flexible sowing window from early summer to the beginning of August. These crops can be fed from ten to fourteen weeks from sowing.

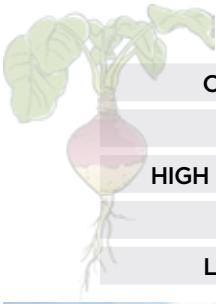
Root and forage crops can be fed to all classes of livestock, either for milk production or live weight gain and are suitable for organic and conventional farming.

These crops demand relatively modest inputs of agrochemicals and fertiliser. With their high dry-matter yields, production costs compare favourably with those for conserved grass, maize and whole-crop cereals.

At Watson Seeds we have selected, from the plant breeders, forage crop varieties which will give our customers a flexible range of crops, thus offering a suitable option for almost every farm situation.

## MAIN NUTRITIONAL CHARACTERISTICS OF FORAGE CROPS

CROP	SOWING DATE	TIME TO MATURE	UTILISABLE	SOWING RATE/ACRE	DRY MATTER T/ACRE	CRUDE PROTEIN	D VALUE
<b>FODDER BEET</b>	April - May	24-28 weeks	October to November	40,000 seeds/acre	6.0-7.25	12-13%	78
<b>STUBBLE TURNIP</b>	May to August	12-14 weeks	August to February	2kgs (drilled) 3kgs (broadcast)	1.6-2.25	17-18%	69
<b>RAPE/ KALE HYBRID</b>	July to August	12-14 weeks	September to February	2kgs (drilled) 3kgs (broadcast)	1.4-1.6	15-24%	66
<b>FORAGE RAPE</b>	May to August	10-12 weeks	September to February	3kgs (drilled) 4kgs (broadcast)	1.4-1.6	19-20%	65
<b>KALE</b>	May to June	16-20 weeks	September to March	2kgs (drilled) 3kgs (broadcast)	3.25-4.0	16-17%	70-75
<b>SWEDES</b>	May	20 weeks	September to February	100-325g	2.85-4.0	10-11%	82
<b>MAIN CROP TURNIPS</b>	May to June	12-15 weeks	September to February	0.2-0.3kgs (drilled) 0.75kg (broadcast)	2.2-2.45	17-18%	68-70
<b>CHICORY</b>	May to July	8 weeks	April to October	2kgs	up to 6 (in season)	25%	70-80



# SWEDES

**CAN BE FED TO SHEEP, DAIRY AND BEEF CATTLE**

**IDEAL FOR FINISHING LAMBS**

**HIGH ENERGY WINTER GRAZING, WINTER HARDY, HIGH YIELD**

**CAN BE SOWN ON A RANGE OF SOIL TYPES**

**LOW PRODUCTION COSTS AND COST EFFECTIVE**



'Triumph has been the favoured choice of swede due to its winter hardiness and yield potential. I winter a few hundred lambs for customers over in the Islands and the west coast and it's imperative that I have a consistent amount of fodder available for them to graze on and, more importantly, thrive. Despite the challenging seasons we keep experiencing, I am delighted with how well the swedes have grown this year.'

**Mr Munro, Coul of Fairburn Farm, Marybank, Muir of Ord.**

ROW WIDTH	SEED SPACING			
	2" (5cm)	4" (10cm)	6" (15.25cm)	8" (20cm)
20" (50cm)	325	275	225	200
24" (60cm)	300	250	200	150
26" (65cm)	275	225	175	125
28" (70cm)	250	200	150	100

# WHICH VARIETY IS BEST FOR YOU?

## SWEDES

### HIGH (DM%)

Better winter hardiness  
& suitable for long keep  
systems (Jan-Feb)

INVITATION

### MEDIUM (DM%)

Large DM yields &  
easily eaten (Nov-Jan)

MAGRES

TRIUMPH

LOMOND

GOWRIE

KENMORE

### LOW (DM%)

Earlier to bulk  
(Oct-Dec)

AIRLIE

VARIETY	DESCRIPTION	TYPE
<b>KENMORE</b>	Early variety with high yields <small>*only available untreated</small>	Forage
<b>TRIUMPH</b>	Optimum bulb dry matter and good winter leaf retention	Forage
<b>GOWRIE</b>	Excellent yield & disease resistance	Dual Purpose
<b>LOMOND</b>	Big yields & consistent performance	Dual Purpose
<b>INVITATION</b>	Winter hardy with large leaves for extra potential	Forage
<b>AIRLIE</b>	Bulky & early with good resistance to mildew <small>*only available natural, untreated</small>	Dual Purpose
<b>MAGRES</b>	Excellent resistance to mildew & splitting	Culinary



'Swedes are a very important crop for us at Ankerville. I put my finishing lambs on them, as this gives them a head start when getting them ready for the prime market. From the swedes, I then draw any lambs off that are at a suitable weight, then put inside to finish up on home grown cereals. In the photo above, lambs utilising the Lomond swedes on a challenging winter's day. Lomond is the variety that I grow religiously, due to its good consistent yields and winter hardiness.'

Ian Ross, Ankerville, Tain, Ross-shire.





# FODDER BEET

ONE OF THE HIGHEST YIELDING FORAGE CROPS

HIGH IN ENERGY, PALATABILITY AND DIGESTIBILITY

CAN BE GRAZED IN SITU OR LIFTED, STORED AND THEN FED WHOLE OR CHOPPED



'Growing fodder beet here at Easter Sheppark Farm has been a relatively new venture. 2021 was when we decided to try growing fodder beet and we haven't looked back since. What stood out to me, was the availability of chemicals that I could use to knock back the brassica weeds enabling a good clean bulky crop, ready for stock to utilise over the winter as well as its projected yield potential. Varieties Geronimo and Lactimo have been the favoured ones so far, as these are varieties that anchor well into the ground, leaving around 40% of the bulb above ground and boasting a good DM % content, which helps in a testing cold hard winter. We strip graze growing cattle on the fodder beet crop, and with it being a high yielder, this keeps the stock well fed and content over the winter months.'

**A M MacDonald, Easter Sheppark Farm, Balblair, Dingwall**

VARIETY	DESCRIPTION	DM%
<b>ROBBOS</b>	Clean yellow roots, very consistent performance	20
<b>JAMON</b>	High palatability and easily eaten in situ or fed whole or chopped	18
<b>GERONIMO</b>	Very high potential yield and greater bolting resistance	16
<b>LACTIMO</b>	Good seedling vigour and produces very high fresh yields of medium dry matter	16
<b>FELDHERR</b>	Orange roots which grow out of the ground producing huge fresh yields	16
<b>FORTIMO</b>	Produces excellent yields of medium dry matter	15
<b>BRIGADIER</b>	A traditional polyploid, mangel type fodder beet	14
<b>FOSYMA</b>	New variety with a high dry matter content which provide a high energy feed for dairy & beef.	20

### Sowing Rates

40,000-48,000 seeds/acre

### Sowing Period

April to May

### Utilisation Period

October to November

## GET THE BEST FROM YOUR FODDER BEET

### SOIL

Fodder beet has been grown in a wide range of soils. However, it is best grown in a light to medium soil in a free draining field. A pH of 7 is ideal.

### SEEDBED

A firm, fine tilth is ideal with as little moisture loss as possible in the spring. Soil temperature of 5°C is required before sowing. Sowing too early in cold conditions can lead to bolting. Seed should be precision drilled to a depth of 2.5/3cm.

### FERTILISER

Nutrition is essential and fodder beet is a demanding crop. Apply two thirds of N with all of P & K to seedbed. Apply one third of N 2 months after sowing. Trace elements are also important to fodder beet especially boron and manganese.

### Requirements:

With farmyard slurry: Without farmyard slurry:

N 100 kg/ac  
P 50kg/ac  
K 50kg/ac

N 125kg/ac  
P 75kg/ac  
K 150kg/ac

### WEED CONTROL, DISEASE AND PESTS

Good weed control is required to achieve the full yield potential. The use of a pre-emergence herbicide should be routine. The seeds are treated with fungicide and insecticide for protection through establishment. The crop can be attacked by several pests and therefore regular monitoring is essential. Major pests are flea beetle, slugs, springtails, symphalids and beet cysts.

### HARVESTING

Many of the varieties can be grazed in situ which will give the benefit of utilising the tops as well as the root. If lifting, it is important to remove the tops down to the base of the leaf petioles. Keep soil contamination to a minimum.

### FEEDING

If lifted - fodder beet can be fed whole to cattle over 250kg. Otherwise chop before feeding.

If feeding indoors a maximum of 8-10kg of beet/head/day with a readily available source of fibre. The beet would likely make up around 60% of DM intake per day. If grazed a maximum of 70% of DM intake per day.

It is important to introduce fodder beet **gradually** with a starting point of 2kg DM intake per day/head and adding another 1kg DM intake every 2 days/head up to the maximum of 8-10kg.



'We have used Watson Seeds for several years for our beef and sheep farms. This year we decided to grow a trial field of fodder beet, our fieldsman Andy Nelson gave excellent advice throughout, and the results have exceeded expectations. We will plant a larger acreage next year to maximise this high-quality winter forage.'

**Matthew Aspinall, Farm Manager,  
Messrs Gilroy, East Kirkcarswell, Kirkcudbright**

**FODDER BEET SELLS OUT FAST - PLEASE ORDER EARLY TO ENSURE YOU GET YOUR PREFERRED VARIETY**

# KALE

**BEST FOR LATE UTILISATION**

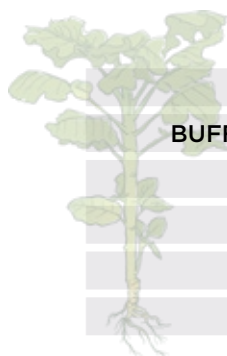
**BUFFER FEED FOR DAIRY COWS DURING DRY SUMMERS**

**USED FOR OUT-WINTERING SYSTEMS**

**WINTER HARDY**

**SECOND HIGHEST UTILISABLE YIELD**

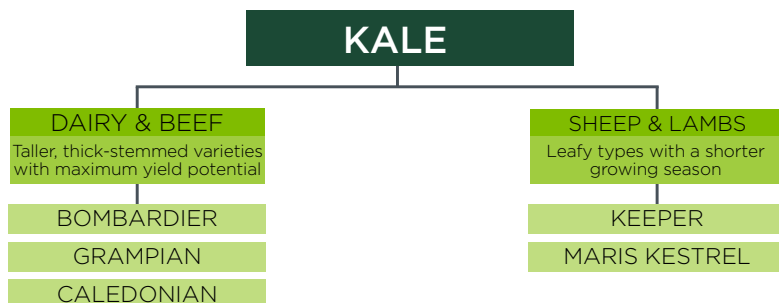
**HIGHER YIELDS THAN HYBRID RAPE/KALE**



'First time growing kale but it won't be the last time. After ploughing a permanent pasture we looked for something to fill a forage gap for dairy heifers and wintering sheep. I'm really pleased with the crop and will be using it again.'

**Alan Alston, Drumchapel Estate Co, Chapelton of Menmuir, Angus. Alex Eggo pictured.**

## WHICH VARIETY IS BEST FOR YOU?





### Sowing Rates

Direct drilled - 2kgs/acre  
Broadcast - 3kgs/acre

### Sowing Period

May to June

### Utilisation Period

September to March

VARIETY	DESCRIPTION
<b>CALEDONIAN</b>	Our highest yielding kale which is club root tolerant. It's high yield and quality makes it an ideal feed for cattle.
<b>BOMBARDIER</b>	A new variety which produces a high dry matter high yielding crop. Club root tolerant. Suitable for sheep and cattle.
<b>BITTERN</b>	High quality and dry matter. Excellent frost tolerance. Suitable for sheep and cattle and good game cover.
<b>KEEPER</b>	Low growing winter hardy variety. Good leaf to stem ratio and high dry matter. Suitable for sheep and cattle. Popular game cover.
<b>MARIS KESTREL</b>	Low growing, high yielding. High dry matter content with good leaf to stem ratio. Suitable for sheep and cattle.



'The Bombardier was a productive crop. It was sown towards the end of May and was heavily challenged by the drought but came away strongly once we got moisture. It grazed 30 cows and 25, year old stirks from the 20th of November. The 10 acre field next door was used as a run back with straw and silage available and it has now become our kale field. The kale has withstood some heavy frosts and provided grazing through until March.'

**John Anderson, Smeaton Shaw Farm, Dalkeith, Midlothian.**



# STUBBLE TURNIPS

**SUMMER BUFFER FOR DAIRY COWS**

**GOOD WINTER FEED FOR SHEEP OR CATTLE**

**EASY TO ESTABLISH**

**GOOD RESISTANCE TO BOLTING**

**PALATABLE AND EASY TO DIGEST**

**CAN BE SOWN AFTER HARVEST**



Kevin Orr in a great crop of a stubble and main crop turnip mix, destined for winter grazing Cheviot and Texel cross lambs. Their large scale mixed farming operation has rotational grass and forage crops delivering great soil health and structure for their 1,000 plus acre cereal and potato enterprises. For example, their fields in the wet autumn of last year were ploughing up dry and made cereal sowing relatively easy. The stubble turnip field will be followed by a crop of potatoes and the potato grower always finds the ground much easier to work than an all arable rotation.

**Kevin Orr, Penston, East Lothian.**

## **Sowing Rates**

Direct drilled - 2kgs/acre  
Broadcast - 3kgs/acre

## **Sowing Period**

May to August

## **Utilisation Period**

August to February

VARIETY	DESCRIPTION
<b>SAMSON</b>	Can produce very large tankard shaped purple bulks. This variety which is tried and tested in the UK has been shown to be preferentially grazed which can lead to higher intakes and live weight gain. Ideal for finishing lambs and grazing cattle.
<b>RONDO</b>	It is a winter hardy variety that has excellent root anchorage that can reduce wastage. It is green skinned and quick to establish with a leafy growth habit. Being frost tolerant it is a viable option for sowing later in the season.
<b>WHITESTAR</b>	Trusted for its winter hardiness and palatability it is an excellent choice for after harvest. It is a white skinned globe type which mostly sits out of the ground but is well anchored. It has a very clean root.
<b>TYFON</b>	A hybrid turnip that is a cross between a stubble turnip and a Chinese cabbage. It produces a very small bulb but massive palatable leaves. It benefits from being spring sown and grazed in the summer and offers regrowth potential. Extremely fast growing and can be utilised in 8-10 weeks.
<b>SKYFALL</b>	A leafy brassica that is ideally suited to grazing. Produces a small bulb but large palatable leaves that are well suited to dairy, beef, or sheep. Deep rooting species that has good regrowth potential.



'We have been using Tyfon for the last three to four years to prepare our tups for sale. It has allowed us to cut down on concentrates and seems to put a better finish on them. The field was sown in May and was ready to graze the week after the Highland Show. It was split into four, with us managing to get three grazings out of it with about a month's rest in between. It grazed forty tups across the season and was then utilised by the tup lambs. The Tyfon is a vital part of our management of the tups and is something that we will continue to grow.'

**Andrew Morton, Lochend Farm, Denny, Falkirk.**



# FORAGE RAPE & HYBRIDS

**HARDY, CAN GROW ON POORER SOILS & EXPOSED SITES**

**IDEAL FOR FATTENING LAMBS OR FLUSHING EWES**

**CAN ALSO BE LIGHTLY GRAZED BY CATTLE**

**FLEXIBLE SOWING PERIOD**

**FAST GROWING**



'We direct drill Redstart in August and use it to finish our store lambs. We buy lambs through the autumn and winter and sell good batches of lambs off the Redstart every week. We can fatten large numbers on the 30 acres with high growth rates and a good finish. We are delighted with the performance of lambs finished on Redstart.'

**John Barclay, Mid Brocklock, Maybole, Ayrshire.**

## **Sowing Rates**

Direct drilled - 2-3kgs/acre  
Broadcast - 3-4kgs/acre

## **Sowing Period**

May to August\*

## **Utilisation Period**

September to February

\*Some varieties don't suit early sowing, speak to your seed specialist to discuss

## KEY VARIETIES FOR CONSIDERATION

VARIETY	DESCRIPTION
<b>SWIFT (HYBRID)</b>	A very aggressive growing variety that will present a fast and reliable forage option. Consideration must be taken into sowing and utilisation dates as can become quite fibrous if not grazed on time.
<b>GORILLA (RAPE)</b>	It is a dark green dwarf variety that has a higher than average DM which leads to high total dry matter yields. Its shorter status presents a very palatable crop that is easy to fence for strip grazing. It is a valuable option if clubroot may be an issue as it has good tolerance.
<b>HOBSON (RAPE)</b>	Highly digestible variety with good standing power and mildew resistance.
<b>RAMPART (RAPE)</b>	A newer variety of forage rape that is fast growing and has good yield potential. It is suitable for both dairy and lamb production.
<b>REDSTART (HYBRID)</b>	A winter hardy hybrid offering a high energy protein crop that is ideally suited for cattle and sheep grazing. It combines rapid establishment and growth rates with good winter hardiness. It has regrowth capability when early sown for multi-graze options.
<b>UNICORN (RAPE)</b>	A hybrid variety that is fast to establish and ready to utilise in 12-14 weeks. It produces a high DM yield that is suitable for sheep, beef, and dairy. It is not as winter hardy as some of the other hybrids so would be ideally suited to pre-Christmas grazing.



'Redstart is a vital part of the farming system at Shiplaw. We use it as a pioneer crop to help us break up old grass swards and get them back into production. We were very impressed with how the field came away despite being sown in 30°C and having very little rain for six weeks. Around 450 lambs were introduced to the crop at the start of September and about 200 had finished within three weeks. It helps us give the grass a rest period and we find it a reliable and robust crop.'

**Stuart Walker, Shiplaw Farm, Eddleston, Peebles.**

# MAIN CROP TURNIPS

VERY HIGH FRESH YIELDS

SLOWER GROWTH THAN STUBBLE TURNIPS

SUITABLE FOR LATE SOWING (LATER THAN SWEDES)

CAN BE MIXED WITH KALE, HYBRID OR RAPE TO EXTEND GRAZING DAYS

VARIETY	DESCRIPTION	DM %	SKIN COLOUR	FLESH COLOUR
<b>IMPERIAL GREEN GLOBE</b>	Traditional white fleshed variety, with some winter hardiness.	8.2	Green	White
<b>MASSIF</b>	A very high yielding variety of good keeping quality. A replacement for Greentop Scotch.	9	Green	Yellow

## Sowing Rates

Direct drilled - 0.2-0.3kgs/acre

Broadcast - 0.75kgs/acre

## Sowing Period

May to June

## Utilisation Period

September to February



Massif turnips





# FORAGE RAPE MIXTURES

Rape 3 mixture, sown 9th August 2023, photo taken 15th September 2023.

'Sowing a break crop into a sprayed off old ley is a great way to increase soil fertility and break up areas of compaction underneath. This field has been in permanent pasture for a long time, and was getting rough to travel over. I was hesitant to plough, knowing it's a hard, difficult soil type and the fact that if I turned the field over, I'd be burying years of built-up fertility. The process I used to get such a pleasing crop made the job a lot easier to perform and kinder on the pocket. Once the field was sprayed off, a local contractor came in, lightly rotavated the surface, and sowed Rape 3 mixture with a one pass drill. An application of 2cwt of fertiliser was applied and I am delighted with the volume and density of the crop which will be grazed by lambs in November.'

**Alasdair McNab, Kildun, Dingwall.**

## MIXTURE

- |               |   |
|---------------|---|
| <b>RAPE 1</b> | <ul style="list-style-type: none"> <li>• High percentage of forage rape ensures rapid establishment.</li> <li>• Stubble turnip will provide a good energy source.</li> <li>• Potentially ready to graze within 12 weeks.</li> <li>• Not as winter hardy as other options and best utilised pre-Christmas.</li> </ul>  |
| <b>RAPE 2</b> | <ul style="list-style-type: none"> <li>• Inclusion of main crop turnip provides a winter hardy aspect to the mixture.</li> <li>• Offers the potential to be grazed later in the season when the rape might have been adversely affected by frost.</li> <li>• Main crop turnips will provide a greater yield than stubble turnips.</li> <li>• Should be sown in June/early July to provide the main crop turnips the opportunity to bulk.</li> </ul> |
| <b>RAPE 3</b> | <ul style="list-style-type: none"> <li>• Ideal for sowing later in the season or after winter cereals.</li> <li>• Extremely fast to establish.</li> <li>• Higher inclusion of stubble turnips provides better winter hardiness to graze post-Christmas.</li> <li>• A mixture of stubble turnips with the winter hardy Green Globe, Rondo and purple tankard Samson.</li> </ul>  |

# KALE MIXTURES



'We started improving the ground in 2018 when it was in very tired old grass. It has had six tonnes of lime applied in three applications and the P and K levels rectified. Brassicas have been used for two years to allow the old turf to properly break down with a clubroot tolerant variety selected in the second year. We are delighted with the crop that has been produced this year and around 800 cross ewes carrying twins will be introduced onto it. We will electric fence it into blocks aiming to move the fence about once a week. We are looking forward to getting it back into grass as previous sections we have completed have had their stocking rates tripled.'

**Willie Shaw, West Lethans, Dunfermline.**

## MIXTURE

- KALE 1**
- Careful combination of full season forage crops to provide a large yield potential and excellent winter hardiness
  - Should be sown from May until early June to ensure potential dry matter yield is achieved
  - Provides an ideal feed for fattening lambs
- KALE 2**
- Combination of kale and swedes provides an extremely winter hardy option
  - Kale provides a high protein source where swedes provide excellent energy
  - High cold tolerance and frost resistant
  - Inclusion of the shorter stemmed highly palatable Maris Kestrel makes it an excellent option for finishing lambs

# HYBRID MIXTURES



'I have been using Watson Seeds for twenty plus years due to their seed quality, and importantly, I also value their advice and backup. This crop was sown towards the end of July with the 12.12.18 fertiliser going on just before the direct drill. I feel that having the fertiliser available in the slots allows the crop to get a good start and a month later I went on with a further application of nitrogen. I am very pleased with the end results which I will graze in five blocks.'

**Alastair Fergusson, Baledmund, Ballinluig, Perthshire.**

## MIXTURE

- HYBRID 1**
- A rape/kale hybrid, rape and main crop turnip mix.
  - Similar to Kale 1 but can be sown later.

- HYBRID 2**
- Should be sown in July
  - Strong vigour leads to fast establishment and fewer problems in the crop
  - Inclusion of hybrids instead of rape gives greater winter hardiness
  - Highly palatable

- HYBRID 3**
- Large dry matter yield for outwintering sheep and cattle
  - Fast and vigorous growth
  - Winter hardiness
  - Potential for good late season growth
  - Inclusion of highly digestible stubble turnip Samson



# FEEDING GUIDELINES

In this short feeding guide we aim to give you a few simple steps to ensure the best performance and utilisation is achieved.

- Recommended inclusion rates should be between 70-80% of total dry matter intake
- Access to straw or hay as well as the forage brassica is important
- Ensure a good water supply
- Occasionally, overfeeding can cause goitre and blood anaemia but access to straw and hay can help reduce risks of this problem

A lot of the forage will be grazed in situ and we hope the guide below helps you calculate your feeding numbers.

CROP	AVERAGE FRESH YIELD  T/HA	LESS WASTAGE FACTOR  Grazing wastage %	UTILISABLE YIELD  T/HA	GRAZING DAYS PER HA		
				SHEEP RATION  7.5kgs per day   10kg per day		DAIRY OR BEEF RATION  22kg/2-3 hour grazing period
KALE	60	25	45	6,000	4,500	2,045
STUBBLE TURNIP	40	25	30	4,000	3,000	1,364
FORAGE RAPE	35	25	26.25	3,500	2,625	1,193
SWEDE	80	25	60	8,000	6,000	2,727

Source: Paul Morgan, Germinal

## FEEDING SAFETY

### INTRODUCE THEM SLOWLY

Introduce stock to brassicas gradually on full stomachs to avoid digestive upsets. Start with two hours a day, gradually increasing over 7-10 days to unrestricted access.

### PROVIDE A RUN-BACK AND PROTECTION

A wide access run-back should have been factored in when the crop was drilled. This could be the grass headland or access to an adjoining field. These run-backs are essential for animal welfare and crop utilisation. Also, always provide shelter, such as a hedge or area they can get out of the wind.

### STRIP GRAZE

Long, narrow breaks are best to enable all stock to access the crop at the same time and prevent localised poaching. The fence should be moved daily.

Start grazing at the top of the hill and work your way down to reduce run-off and environmental risk. Double fencing is also advisable. A fence at the feed face can be looped round one end of the field in a U and used to make a second fence line behind.

When stock are moved, the first fence line can simply be wound up. This eases stock movement.

### Feed plenty of fibre

Brassicas are generally low in dry matter at about 12-15 % DM so fibre needs to be provided to provide scratch factor and promote rumen function. Fibre should make up about 20% of intakes. Straw will be adequate for dry cows, whilst better quality silage will be needed for growing animals. Bales should be put out ahead of grazing. Avoid driving tractors on to the field during the winter to limit poaching. Always provide drinking water.

### Provide appropriate minerals

Brassicas tend to be high in glucosinolates, which can negatively effect iodine and vitamin E uptake. They are also low in copper, iodine, phosphorous and magnesium so it's important to provide these minerals. Bolusing every animal is advisable to ensure they get the right dose. A mineral bag can also be cut open over the top of a silage or straw bale to provide mineral with every bite.

## SOWING RATES FOR GRADED SEEDS

SEED SPACING				
ROW WIDTH	2" (5cm)	4" (10cm)	6" (15.25cm)	8" (20cm)
20" (50cm)	325	275	225	200
24" (60cm)	300	250	200	150
26" (65cm)	275	225	175	125
28" (70cm)	250	200	150	100

## PRECISION DRILL RECOMMENDATIONS

SEED GRADING	GRADE	SIZE (mm)	STANHAY BELT SIZE	SPRING BASE	CHOKE	WEBBS SELECTOR WHEEL
FODDER BEET PELLETED	Q-U	3.5-4.75	15 or 16	C	A	EP
SWEDE	H	1.75-2.0	8	A	T	B
TURNIP	G	1.5-1.75	7	A	T	A
KALE	J	2.0-2.25	8.5	A	T	C

## FERTILISER GUIDELINES FOR FORAGE CROPS

CROPS	NITROGEN (N) (kg/ha)	PHOSPHATE (P) (kg/ha)	POTASH (K) (k/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/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: Fertiliser Manual (RB209) - Germinal GB)

Brassicas are also prone to sulphur (S) deficiency which is shown by yellowing of the leaves. If suspected, a tissue analysis is the best guide. 10-30kg S/ha (8-24 units/acre) is recommended depending on deficiency severity.



WATSON SEEDS

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