



ROOT SEED

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ROOT CROP SELECTOR

Forage crops provide an extremely cost effective way of supplementing livestock rations during times when fodder may be scarce, during dry spells in summer and the cold winter months. They will supply substantial quantities of palatable material at relatively low production costs, balancing the amount of bought-in feed required.

1. When do you want to use the crop?
2. When will the land for growing fodder crops become vacant?
3. How many animals will a fodder crop feed?

Crop	Average Sowing Rate Kg per Hectare		Sowing Date Guide	Utilisation Period	Days to Grazing	Average Drill Depth cm	Suggested guide to seedbed Fertiliser (kg) ha		
	Broadcast	Direct Drill					N	P	K
Fodder Beet	-	50,000 seed/acre	March - May	October - March	180+	2.5 - 3	110	50	50
Stubble Turnip	5	3.75	April - September	June - December	80 - 100	1 - 2	75	40	40
Maincrop Turnip	5	5	May - July	October - January	100 - 130	1 - 2	40	80	100
Forage Rape	10	6	May - September	July - December	60 - 100	1 - 2	20	40	40
Rapid Root Mixture	8.5	7.5	April - September	July - December	80 - 100	1 - 2	60	50	50
Winter Graze Mixture	8.5	7.5	July - September	September - February	80 - 100	1 - 2	60	50	50
Swede	5	Grade H 1	April - June	August - March	170+	1 - 2	40	80	100
Kale	7.5	4	April - July	September - March	150 - 220	1 - 2	100	50	120

DISCLAIMER These tables are given in good faith and intended for general guidance only. Weather, local conditions and crop rotations must always be taken into account.

For all brassicas a soil pH of at least 6.0 is required. Please call for further advice.



For orders and advice call **01531 822833**

TURNIPS

Fast-growing turnips produce higher yields of Winter or Summer feed more quickly than any other crop sown at the same time. Turnips produce palatable, easy-to-digest fodder for both sheep and cattle and can shorten the Winter concentrate feeding period by months. Turnips are multi-purpose and can be sown for grazing in Summer, Autumn and Winter.

Tankard shape enhances utilisation and reduces risk of choking associated with round bulbs

Stubble Turnips Yield and Feed Quality	
Average Dry Matter Yield	3.5 - 4.5 tonnes/ha
Average Fresh Yields	38 - 45 tonnes/ha
Crude Protein	17 - 18% (Mainly leaves)
Digestibility Value	69D
Dry Matter	8 - 9%
Metabolise Energy	11MJ/kg DM
Sugars DM	55%

STUBBLE TURNIPS

SAMSON (TETRAPLOID)

- UK's most popular stubble turnip
- Huge purple tankard shape roots
- Reliable well proven stubble turnip
- Excellent disease resistance and early vigour
- High leaf to bulb ratio increases protein levels
- Palatable throughout the season
- Excellent speed of growth and bolting resistance

DELILAH (DIPLOID)

- Large white tankard shaped roots
- Huge dry matter yield
- Fully UK trialled with excellent results
- Diploid improves winter hardiness
- Palatable to both sheep & cattle

CAUTION: DO NOT SOW TO THICK
As this will jeopardise root size

MAINCROP TURNIPS

GREEN GLOBE MAINCROP

- Most winter hardy bulb turnip available
- Later maturing (90-120 days)
- High fresh and energy yields
- Easily eaten, well anchored roots
- Can be utilised by all stock types
- Very high fresh yields from large bulbs
- Utilise between October & January
- Similar feed quality to stubble turnip
- **Can be included in Winter Graze mixture**



Samson Gloucestershire December 2017



MAGNUM

- Well proven and very consistent
- High Dry Matter yields with palatability
- High proportion of root in the ground
- Good frost tolerance
- A reliable dual purpose fodder/energy beet



Characteristics

Dry Matter %	19.3
Dry Matter Yield %	108
Fresh Yield %	91
Root in Ground %	75
Colour	White
Rhizomonia Resistant	No
GFS Standard Treatment	Force 10 + Thiram and Tachigaren

50,000 seed packs

**BEST
SELLER**

VIRIDIS

- Clean white shallow rooting beet, high fresh weight yield
- High Dry Matter yields and good frost tolerance
- Strong early vigour and excellent disease resistance
- Rhizomonia Tolerant
- A reliable dual purpose fodder/energy beet



Characteristics

Dry Matter %	18.6
Dry Matter Yield %	104
Fresh Yield %	103
Root in Ground %	70
Colour	White
Rhizomonia Resistant	Yes
GFS Standard Treatment	Force 10 + Thiram and Tachigaren

50,000 seed packs

CAGNOTTE

- Easily lifted and clean
- High % of root out of ground
- Well suited to late lifting and storage
- Added insurance of Rhizomania resistance



Characteristics

Dry Matter %	17.5
Dry Matter Yield %	100
Fresh Yield %	107
Root in Ground %	65
Colour	White / Yellow
Rhizomonia Resistant	Yes
GFS Standard Treatment	Force 10 + Thiram and Tachigaren

50,000 seed packs

**NEW
FOR 2019**

BANGOR - NEW

- Very high yielding , 10% higher yield than Kyros
- Produces large quantities of Dry Matter Yield
- Smooth, uniform root, which gives this beet very low dirt tart
- High position out of the ground for easy lifting
- Can be grazed in situ or lifted



Characteristics

Dry Matter %	17.7
Dry Matter Yield %	105
Fresh Yield %	104
Root in Ground %	45
Colour	Yellow
Rhizomonia Resistant	No
Standard Treatment	Force 10 + Thiram and Tachigaren

50,000 seed packs



SPLENDIDE

- An excellent all round beet
- Very high Dry Matter and Fresh Root Yields
- Excellent for storage and easy lifting
- Highly palatable
- Very large clean orange beet



Characteristics

Dry Matter %	16
Dry Matter Yield %	98
Fresh Yield %	113
Root in Ground %	70
Colour	Orange
Rhizomonia Resistant	No
GFS Standard Treatment	Force 10 + Thiram and Tachigaren

50,000 seed packs

JAMON

- A well proven consistent variety
- Clean highly palatable large orange roots
- Good resistance to leaf disease and bolting
- Large top size and early to lift
- Lift or graze insitu
- Europes most popular variety



Characteristics

Dry Matter %	16.2
Dry Matter Yield %	99
Fresh Yield %	105
Root in Ground %	67
Colour	Orange
Rhizomonia Resistant	No
GFS Standard Treatment	Force 10 + Thiram and Tachigaren

50,000 seed packs

MONRO (GRAZING & LIFTING)

- Traditional Mono Germ type of beet
- Exceptional high flesh yields
- Ideal for grazing but can also be lifted
- 60% of root above the ground
- Easy access to root when grazed
- Very good bolting resistance
- Softer / Low dry matter %



Characteristics

Dry Matter %	14.6
Dry Matter Yield %	90
Fresh Yield %	117
Root in Ground %	40
Colour	Red
Rhizomonia Resistant	No
Standard Treatment	Force 10 + Thiram and Tachigaren

50,000 seed packs

BEET TREATMENTS

Neonicotinoid Ban 2019

Pest Control

- We are treating all out Beet seed with Syngenta Force 10
- Force 10 is the only approved insecticide for 2019 (Tefluthrin)

Benefits

- Soil acting pyrethroid insecticide
- Good protective spectrum against soil pests including wireworm
- High crop compatibility in Fodder Beet
- Long lasting protection enabling strong plant establishment
- Long term approval

Challenges

- No systemic effect (ie no above ground activity)
- Early flea beetle and Aphid monitoring necessary
- Timely application of contact insecticide will be required

We are also including Thiram and Tachigaren in the standard treatment. **Be aware of Beet Seed only treated with Fungicides.**

Energy Beets please call for details on the Strube range.



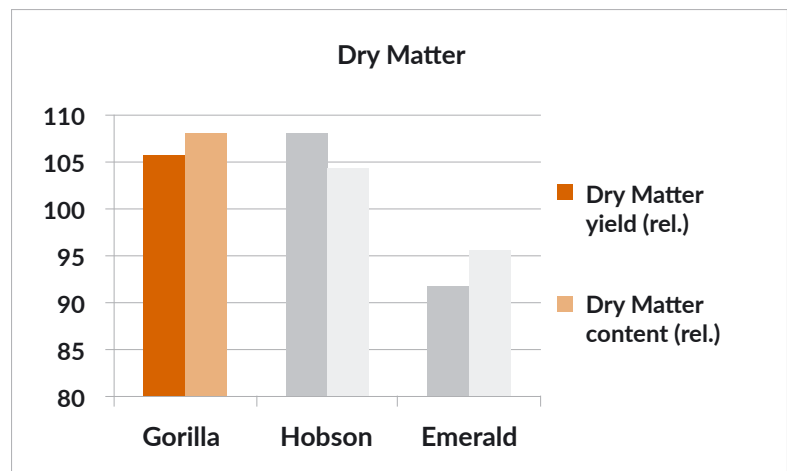
FORAGE RAPE

Forage Rape has the advantage of being a very fast growing crop suitable for grazing by sheep or cattle. It is an ideal catch crop for boosting midsummer forage production for livestock farmers when planted in the spring, it is also suitable for fattening lambs in the Autumn/Winter. Forage Rape extends the grazing season in the Autumn and is superb for flushing ewes.

Forage Rape Yield and Feed Quality	
Average Dry Matter Yield	3.5 - 4 tonnes /ha
Average Fresh Yields	24 - 35 tonnes/ha
Crude Protein	19 - 20% (Mainly leaves)
Digestibility Value	65D
Dry Matter	12 - 14 %
Metabolise Energy	10 - 11 MJ/kg DM

GORILLA **NEW**

- Leafy with excellent leaf retention
- The most palatable and digestible Rape in trials
- Forage Rape with good re-growth ability
- Late flowering with excellent standing ability
- Higher dry matter which leads to high total DM yields and improved intakes
- Good resistance to powdery mildew and clubroot
- Consistent high dry matter content



National list trials, DSV UK



INTERVAL

KALE RAPE HYBRID

- Can boost profits when filling the gap in a winter feed programme
- Very palatable and is ideal for finishing lambs or dairy cows
- Hybrid vigour improves rapid establishment
- Some crops ready to use within 10-12 weeks of sowing

Benefits

- Hybrid vigour
- Exceptionally high Dry Matter and fresh yields
- Good all-round disease resistance
- Uk proven being bred in Scotland



For orders and advice call **01531 822833**



ROOT MIXTURES

The following two root mixtures combine the benefits of Stubble Turnips and Forage Rape, excellent for fattening lambs during Autumn and Winter and providing winter keep for all stock. These mixtures have been in great demand over recent years and the results from stock utilisation have been excellent.

RAPID ROOT (AB13)

- Quick establishment and high protein levels
- Turnips increase energy and stock holding capacity
- High yields of palatable forage
- Ideal for fattening stock
- Graze July through to December
- Sow Mid-April to September

Contents:
60% Gorilla Forage Rape
40% Samson Stubble Turnip

Sowing Rate:
5 kg/ha

WINTER GRAZE (AB13)

- The most popular and proven root mixture
- Reliable quality varieties suitable for sowing after winter cereals
- Exhibits very good winter hardiness
- Very good stock holding characteristics
- 20% Green Globe can replace 20% turnips to improve winter hardiness
- Graze September to February
- Sow July to Mid-September

Contents:
40% Gorilla Forage Rape
60% Delilah Stubble Turnip

Sowing Rate:
5 kg/ha

Both mixtures can be used for CSS AB13 brassica fodder crop option

KALE

Kale is a brassica traditionally grown for grazing by cattle in the Autumn and Winter. Kale is very useful as it can extend the grazing season. This crop is best strip grazed to avoid excessive wastage and ensure both leaf and stem are eaten. It is very adaptable and can grow on most sites throughout the UK. Kale can also be used as a winter hardy game cover.

Kale Yield and Feed Quality	
Average Dry Matter Yield	8 - 10 tonnes/ha
Average Fresh Yields	60 - 65 tonnes/ha
Crude Protein	16 - 17% fresh
Digestibility Value	68D
Dry Matter	14 - 16%
Metabolise Energy	10 - 11 MJ/kg DM
Sugars in DM	17%

PROTEOR

THE PROVEN
PERFORMER

- Very high dry matter yields in UK and NZ trials
- A leafy Kale at intermediate stem height
- Very high leaf to stem ratio (50% more leaf)
- Excellent winter hardiness and standing power
- Excellent tolerance of aphids, club root and other diseases
- Light grazing in Summer/Autumn will result in some re-growth
- High quality and well proven feed for cattle and sheep

Visit www.greenfarmseeds.com



SWEDE

Swedes are a full season root crop which are mainly fed in situ, an excellent high energy winter feed. They grow best in areas of high rainfall, so are generally grown in more northerly and western areas of the UK. Swedes can be grown in a wide range of soil types with good drainage as they are sensitive to compaction and poor drainage; they thrive in soils with a pH of approximately 6.5.

Swede Yield and Feed Quality

Average Dry Matter Yield	7 - 10 tonnes/ha
Average Fresh Yield	70 - 80 tonnes/ha
Crude Protein	10 - 11%
Digestibility Value	82D
Dry Matter	9 - 13%
Metabolise Energy	12.8 - 13.1 MJ/kg DM
Sugars in DM	59%

TRIUMPH NEW

- The ultimate grazing swede
- Highest yielding yellow fleshed swede
- Uniformed bronze/purple skin
- Exceptionally good dry rot and mildew tolerance
- Very good winter leaf holding characteristics
- Medium dry matter bulb
- Very tolerant club root

KENMORE

- Well proven High Dry Matter grazing swede
- Widely used throughout the UK, Scottish bred
- Exceptionally winter hardy with high Dry Matter yields
- Globe shaped and consistently uniform
- Rapid establishment and early to mature

AIRLIE

- Low dry matter and high fresh yields
- Ideal for culinary or feeding stock
- Good confirmation characteristics and excellent disease resistance
- Very consistent root shape in the field
- Bright purple skinned with a yellow flesh ideal for culinary use
- Airlie is an early to intermediate use variety

Variety	Triumph	Kenmore	Airlie
Fodder	✓	✓	✓
Culinary	X	X	✓
Root Shape (9=Globe 1 = Tankard)	6	5	6
Skin Colour	Bronze	Bronze	Light Purple
Flesh Colour	Yellow	White	Creamy White

