STUBBLE TURNIPS

Why Grow Stubble Turnip?

- Fast growing catch crop
- Autumn or winter feed
- Finishing lambs
- Summer buffer for dairy cows
- Economical to grow
- Flexible sowing options
- Help reduce winter feed costs

Typical Yields and Feed Quality

Average Dry Matter yield	=	3.5-4 tonnes/ha
Average fresh yields	=	38-40 tonnes/ha
Dry Matter	=	8-9%
Crude protein	=	17-18%
Digestibility value	=	68-70%
Metabolisable energy	=	11 MJ/kg DM

Typical Costs and Value

	Total Costs
Cost per acre	£128 (£317/ha)
Cost per tonne fresh weight	£5
Cost per tonne utilised dry matter	£68
Relative value £/tonne DM	£145
Cost per litre of milk	2.9p
Cost per kilo of live weight gain	18.9p

STUBBLE TURNIPS

Sowing, Growing and Feeding

SOWING	**Timing**	Summer after harvest, into cereal stubbles.
	Sowing Period	(1) May - June (2) July - August
	Variety Selection	Choose varieties to suit the desired grazing period, book also for DM yield, leaf to root ratio and resistance to disease such as club root.
	Seed Rates	Direct Drill = 5 kg/ha (2 kg/acre) Natural seed Broadcast = 8 kg/ha (3 kg/acre) Natural seed
	Soil	As a high proportion of the crop is leaf it is not practical to lift the crop for feeding and it is, therefore, important to choose sites which are suitable for grazing. A free draining light loam or brash pH of 6.5 or above is ideal.
GROWING	**Fertiliser**	Lime at 1t/ac per year (2.4 t/ha) to target a pH's of 6.5 Check P & K status and adjust accordingly. 60-70 units of N/ac (75-85kg N/ha) may be incorporated into the seedbed, though account for muck applications. Refer to DEFRA's RB209 for more details.
	Pests	Watch out for flea beetle attack, spray at the first sign of trouble. Look out for slug damage in direct drilled crops.
FEEDING	**Method**	Allow 10-14 weeks from sowing to feeding. Strip grazing cattle is essential to minimise waste, move the fence daily to allow cows to feed under the fence. Sheep can be set stocked. Provide a fibre source, e.g. by placing straw in the field before the crop grows. Allow stock to run back onto a dry grass area.
	Livestock Intake	A dairy cow will eat approximately 22.5 kg in a 2-3 hour grazing period and a lowland ewe about half that amount in a day. So an average autumn crop of 15.50 tonnes/acre (after allowing for wastage) should provide one day's grazing for 500 cows or 1,000 ewes. With beef animals an intake of 25 kg of stubble turnips per head per day should give lightweight gains in the order of 0.5 to 0.75 kg per head. One point that must be borne in mind is that there is a slight risk that these turnips may taint the milk - so as a precaution it is better to give the cows access to the crop immediately after milking and then remove them from the field at least three hours before the next milking. For efficient utilisation it is desirable that cattle be made to strip-graze the crop using an electric fence - with a maximum grazing period of three hours. With sheep a good quality netting can be used to control the grazing and limit the wastage factor.

STUBBLE TURNIPS VARIETY SELECTION

Choose varieties to suit your desired grazing period

SUMMER BUFFER FEED	DAIRY	**TYFON**
AUTUMN GRAZING	SHEEP	**SAMSON DELILAH**
	DAIRY OR BEEF	**DYNAMO**
WINTER GRAZING	SHEEP OR BEEF	**RONDO**

Variety Features and Benefits

Preferred Varieties

SAMSON

Samson can produce huge tankard shaped purple roots which are very palatable to both sheep and cattle. In trials Samson has shown to be **preferentially grazed** which can lead to higher intakes and live weight gains.

DELILAH

This is an exciting recent introduction which has **out-performed** many existing varieties in our trials for a number of years. Delilah is ideal for fattening lambs and will produce **huge** white tankard shaped bulbs. Resistant to mildew.

RONDO

Rondo is a green skinned variety, suitable for sheep or cattle. It has a very leafy growth habit, with excellent disease resistance and can be utilised from September to early February. Rondo has **excellent root anchorage** which helps reduce wastage in the field.

TYFON

Tyfon is ideally sown in the spring and utilised in the summer months when grass growth generally declines. Tyfon should not be sown too early as it is susceptible to bolting. Tyfon's growth habit is very leafy with some **regrowth potential**.

STUBBLE TURNIPS TRIAL DATA

Variety	Type	Total Dry Matter Yield %	Total Fresh Yield %	Root Dry Matter Yield %	Leaf Dry Matter Yield %	Mildew Resistance 9 = Best
100%=Tonnes/Ha		5.0 t/ha	47.1 t/ha			
Delilah (Dip)	Tankard	104	109	133	81	7
Samson (Tet)	Tankard	100	110	122	86	6
Barkant	Tankard	100	100	100	100	5
Marco	Tankard	91	99	107	79	6
Dynamo	Round	83	88	96	73	5
Rondo	Leafy	86	86	92	88	6
White Star	Round	80	82	73	89	6
Tyfon	Leafy	78	75	59	97	4
Appin	Leafy	73	80	53	93	7

Data Source: Limagrain UK trials 1987 - 2008

Financial Value of Each Variety

Variety	Dry Matter Yield %	Dry Matter Yield t/ha	Dry Matter Value £/ha	Extra £/ha against Barkant
Delilah	109	5.01	727.03	60.03
Samson	103	4.74	687.01	20.01
Barkant	100	4.60	667.00	0.00
Marco	93	4.28	620.31	-46.69
Dynamo	90	4.14	600.30	-66.70
Rondo	86	3.96	573.62	-93.38
White Star	82	3.77	546.94	-120.06
Tyfon	79	3.63	526.93	-140.07
Appin	74	3.40	493.58	-173.42

The dry matter value £/ha is calculated by using the Kingshay relative value of stubble turnip at £137 per tonne of dry matter.