

# FORAGE for PROFIT



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The Forage for Profit Discussion Group are a group of beef and sheep producers based in South West Scotland with a common desire to improve business profitability through improved utilisation of grass and forage crops.

Homegrown forage and well managed grass offers an opportunity to extend the grazing season, reduce wintering costs, finish lambs more cost effectively, improve productivity and increase profitability. The basis for any successful crop is always soil fertility, soil conditions and planning but careful consideration on what crops and varieties within that crop species which suit the farm will make the forage system more effective. The use of crop combinations and grass margins can help overcome some of the issues with birds damaging bales, tractors entering fields in wet conditions, soil erosion and long periods of exposed soils making outwintering and forage production a more environmentally sustainable and overall profitable option.



## Grass Mixtures

When choosing grazing mixtures look for a larger percentage of late varieties in your mix. These will provide more leaf for longer due to a later heading date. When selecting varieties the SRUC Grass and Clover Varieties guide will give information on the yield, heading date, performance under cutting or grazing management and a score based on winter hardiness, and ground cover. Tetraploid varieties which have higher ground cover scores and perform well in grazing situations include Abergain, Twymax and Aspect. These are dense varieties which can offer a lot of the same characteristics of a diploid but with higher digestibility. Tetraploids are a good companion for clovers as they have a more upright growth habit so clover has space and light to spread. Grass reseeds can be expensive but buying a high quality mixture with high germination and low weed seed content which are sown into the right fertility, in the right conditions will ensure a successful reseed providing significant return on investment.

## Arable Silages

An arable silage can provide increased levels of protein and starch in comparison to grass silage. Legumes such as vetch, peas or lupins can also be incorporated into these mixtures and can provide benefits to soil structure as well as the boosting the protein content of the harvested crop.

If under-sowing grass with your mixture the sowing rate of the arable crop mix should always be lowered to ensure the grass underneath has sufficient light to grow, the maximum sowing rate should be 50kg/acre for the arable crop. Harvest early when the grain is still soft to ensure good recovery of the under-sown grass.

An alternative to a cereal crop in an Arable silage mix could be a Westerwold grass. This will provide a bulk of feed 3-6 months after sowing and also provide a good cover crop for establishing the grass sward underneath. A Westerwold is a true annual ryegrass so will grow very fast and then die out leaving the perennial sward below.



For more information and events from the Farm Advisory Service see [www.fas.scot](http://www.fas.scot) or find us on Facebook or follow us on Twitter @FasScot



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# FORAGE for PROFIT — Pre Lambing Nutrition

## Choosing the Right Forage Crop

Below is a table summarising the differences between forage crops in terms of the agronomy for timing of sowing, growing period until grazing, sowing rates and the feed value of different species. Generally crops which have a longer maturity period will be more tolerant to cold weather and frosts during the winter but within species varieties will have different traits such as larger leaf to stem ratio or clubroot tolerance. Crops which take longer to mature will also have a higher yield potential but require higher inputs. Before choosing a crop consider the purpose and time of year you wish to graze, availability of field being out of production and fertility of the field. Source [Your Countryside \(dlf.co.uk\)](http://YourCountryside.dlf.co.uk)

Crop	Page No.	Pack Size	Average Sowing Rate kg / Hectare		Sowing Date Guide	Utilisation Period	Average Drill Depth cm	Average Row Width cm	Suggested Guide to Seedbed Fertiliser (kg) ha			Days Sowing to Grazing	No of possible Grazings	Dry Matter (%)	Digestibility (D-Value)	CP (% DM)	ME (MJ/kg DM)
			Broadcast	Direct Drill					N	P	K						
Stubble Turnip	38	10kg & 25kg	7.5	5	Apr-mid Sept	Jun-Jan	1-2	n/a	75	40	40	60-100	1	12-15	70	17-18	10-11
Main Crop Turnip	38	2kg	5	2.5 - 3.5	May-Jul	Oct-Jan	1-2	n/a	40	80	100	60-100	2+	12-15	80	17-18	10-11
Forage Rape	39	10kg & 25kg	10	6	May-end Sept	Jun-Jan	1-2	n/a	20	40	40	90-100	2	10-12	70	19-20	10-11
Fodder Beet	40	1ac 50,000 seeds	-	Precision drill 100,000/ha	Mar-May	Oct-Mar	2.5-3	50-60	110	50	50	-	-	12-19	78	12-13	12-12.5
Swede	41	500g & 1kg	2.5 - 5	Precision drill 370-865 kg/ha grade H Direct Drill 1	Apr-June	Aug-Mar	1-2	45-70 graded 40 natural	40	80	100	170-250	1	17-20	82	10-11	12-13
Kale	42	1kg	7.5	2.5 - 5	Apr-Jul	Sept-Mar	1-2	50	100	50	120	150-220	1	15-17	68	14-17	10-11
Spitfire	39	5kg & 25kg	10	6	May-end Sept	Jul-Dec	1-2.5	15-20	20	40	40	90-110	2	12-15	70	18-19	10-11
Zoom	39	5kg	10	6	April-Sept	Sept-Jan	1-2	various	110	55	55	90-110	2	12-15	70	18-19	10-11
Rapid Root Mixture	43	5kg	8.5	6	mid Apr-mid Sept	Jul-Dec	1-2	n/a	60	50	50	-	-	-	-	-	-
Winter Graze Mixture	43	5kg	8.5	6	mid Jul-mid Sept	Post Christmas	1-2	n/a	60	50	50	-	-	-	-	-	-

## Combination Crops

Many crops are suited to being grown in combination with another crop to fulfil feed requirements by increasing yield or quality or to compensate for varying soil types or fertility. Some common combinations may be:

- Forage Rape, Kale and stubble turnips
- Oats and vetch
- Forage Rape and Italian ryegrass

When thinking about combination crops remember to consider:

- Impact on weed control options available with different species of crop
- Maturity dates of different crops - choose species and varieties which have similar maturity dates
- Canopy cover from different crops - all plants need light to grow
- Adjust seed rates to compliment all crops - e.g. reduce seed rate for larger canopy crops
- Difference in sowing rates and depth.

Combination crops can offer greater flexibility in grazing duration or frequency but remember any combination will be a compromise as the different species will be competing with each other.

Including an Italian ryegrass may offer the option of some regrowth once the forage crop has been grazed or inclusion of a green globe turnip can provide a good increase in yield with its larger bulb size.

**Remember a minimum of 2m from the centre of a hedge and 1m field boundary must be left uncultivated. There is value in increasing this grass margin in terms of preventing soil erosion and fertiliser runoff into water ways or roads.**

