



# Beef Action for Profit

## Better Returns from Conserved Forage

**Boost your returns by using conserved forage to meet nutrient requirements of all ages of cattle while using farm resources efficiently.**

The major conserved forage types of grass, maize and whole crop silages have widely differing nutrient compositions, and rations should be formulated to ensure cattle requirements are met and feed cost (p/kg) per liveweight gain is minimised.

With forages and protein crops, specific supplementation is usually needed to balance nutrient supply to maximise performance and reach pre-set targets.

### Targets

- Establish the requirements for all cattle on farm.
- Draw up a **feed plan** to allow forward planning of forage requirements.
- Monitor feed quality, intakes and growth rates monthly.

### Management Guidelines

- Aim to select a beef **system** and forage type(s) that is suitable for the farm and any decisions should be based on **costings**.
- Prepare separate **budgets** on a per head basis for each stock type, rearing system and, ideally, batch of animals against which to monitor performance and profitability, especially in relation to feed costs.
- Establish a **forage plan** that outlines the expected yield, harvest date and nutrient content to ensure that the requirements are met.
- Be aware that **nutrient requirements** of cattle will change depending on age, breed, growth requirements, time of year, pregnancy and lactation, and rations will need to be adjusted.
- **Analyse** the forage for nutrient content regularly, especially for dry matter (DM), energy (ME) and protein (CP), to ensure accurate **rationing** and a balanced diet.
- Formulate a **feed plan** that takes into consideration the available feeds on the farm, the changing nutrient requirements of the stock and bought-in feed requirements.
- Appreciate that average **grass silage** can support liveweight gains of up to 1.1 kg per day in finishing cattle; however, for higher rates of growth a 14% protein concentrate will be needed.
- Realise that **maize silage** is high in energy and can support liveweight gains of up to 1.2 kg per day in finishing cattle, but is low in protein, so will need supplementation.
- Be aware that **whole crop cereal** (wheat) silage is low in energy and protein and can only support liveweight gains of up to 0.9 kg per day, so concentrate supplementation is essential.
- Recognise that feeding mixtures of forage can support higher levels of performance than single forages alone due to the higher intakes achieved in these systems, but careful **rationing** and **analysis** is needed.
- Be aware that supplementation of **minerals and vitamins** will be needed to ensure forage meets cattle requirements, eg for Calcium, Magnesium, Zinc, Copper, Iodine and Selenium.

More detailed advice, costings, calculators and further information supporting these guidelines are available free of charge to levy payers in a unique interactive Beef Action for Profit resource at [www.eblex.org.uk](http://www.eblex.org.uk)



Better Returns Programme



ENGLISH BEEF & LAMB EXECUTIVE

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### Average Analyses of Forages in 2005/2006

Typical Nutritional Values	Grass Silage	Maize Silage	Fermented WC Wheat Silage
Dry matter (%)	31.7	29.6	40.6
Crude Protein (%)	13.6	8.1	9.9
Metabolisable Energy (MJ/kg DM)	11.2	11.3	9.4
Starch (%)	-	28.1	17.0

WC = Whole Crop

Source: Frank Wright Ltd

### Key Cropping Information

Type of Forage	Considerations	Variable Costs per Hectare (Harvesting cost)	Metabolisable Energy per Hectare (MJ) (Cost per unit energy* (p/MJ))	Crude Protein per Hectare (kg) (Cost per unit protein* (p/kg CP))
<b>Grass Silage</b>	Perennial Ryegrass is used extensively for grazing and cutting in medium and long-term leys.  Alternative grazing and cutting maintains sward quality and purity.	£419  (£220 for 3 cuts)	115,500 MJ  (0.36p)	1,430 kg  (29.3p)
<b>Maize Silage</b>	High starch crop with rapid growth.  Early maturing crop should be used to ensure that it can be harvested before adverse ground conditions.	£390  (£175 for planting and harvesting)	155,520 MJ  (0.25p)	1,296 kg  (30.1p)
<b>Fermented WC Wheat Silage</b>	Easily grown, but requires all the inputs used on a grain crop to achieve high yields.  If it is going to be urea-treated, needs to be harvested at >50% DM.	£394  (£155 for harvesting)	120,000 MJ  (0.33p)	1,200 kg  (33.0p)

\*based on the variable costs per hectare

Source: The Forages and Protein Crop Directory

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