Brewers' Grains

A highly palatable and succulent moist feed providing a rich source of digestible fibre and protein.

Typical Analysis (on a dry matter basis)

Dry matter# (%)	Energy (MJ ME/kg DM)	Crude # protein (%)	Oil (%)	NDF (%)	Starch (%)	Sugar (%)	DUP (%)
18.0-24.0	11.7	18.0-24.0	7.0	67.0	4.0	2.0	7.5

Dry matter and Protein can vary

What are you trying to achieve?

Need	Feature	Benefit
Drive intake	A succulent and palatable moist feed.	Brewers' Grains is often associated with higher intakes, resulting in increased milk and meat production.
Minimise risk of acidosis	High digestible fibre and low starch content.	Allows high levels to be fed safely, especially when used as a forage extender.
Traceability	Produced in the UK	A short and local supply chain creates peace of mind.
Flexibility in feeding	Can be ensiled or fed alone or with other feeds.	Can be used tactically as a forage or concentrate replacer.

The predicted responses (benefits) assume that the specified nutrient, physical or structural dietary components are limiting livestock performance in the current ration.

Complementary Concentrate Feeds

- **High starch feeds** e.g. cereals, maize meals, confectionery and bakery products.
- **Low protein feeds** e.g. cereals, soya hulls, and sugar beet products.
- **Rumen bypass proteins** e.g., SoyPass, Novapro.

Recommended daily feed rates (per head basis)

Brewers' Grains can be fed as concentrate feed, part of a TMR and as a forage replacer. DMI = dry matter intake

Milking Cows	Up to 20 (typically 8)kg
Dry Cows	Up to 4 kg
Replacement Heifers	Up to 10kg and up to 30 % of the DMI
Calves (to 12 weeks)	Up to 5 kg and up to 30 % of the DMI
Growing Cattle	Can be fed *ad lib* and typically up to 50% of the DMI
Finishing Cattle	Can be fed *ad lib* and typically up to 50% of the DMI
Suckler Cows	Up to 15 (typically 6)kg
Ewes and Rams	Up to 3 (typically 2)kg
Hogget's and Lambs	Can be fed *ad lib* and typically up to 50% of the DMI

Availability, handling and storage

Brewers' Grains are available throughout the UK as bulk tipped loads. It is advisable to contract supplies early, as demand occasionally outstrips supply, particularly around the turn of the year, in early spring and at times of forage shortage.

Brewers' Grains should always be stored on a clean and dry concrete base. If fed fresh, Brewers' Grains should be consolidated to exclude air from the load, sheeted with a good quality, clean sheet, and used within 6 weeks. For longer-term storage, Brewers' Grains should be clamped, consolidated to exclude air, and covered with a secured sheet in the same manner as grass silage (see storage tips below). It is advisable to use clamped Brewers' Grains within 6 months.

Brewers' Grains can be mixed with other feeds, such as sugar beet feed or processed bread, to produce a moist blend. Please note, it is not advisable to exceed a dry matter content of 65%.

Storage Tips

- Store on a clean dry concrete base.
- Storage sites should ideally be situated away from open watercourses and designed with a narrow, north facing feed face.
- Brewers' Grains will be hot on arrival. It is best left for 24 hours before sheeting to let heat escape.
- Depending on the dry matter content of the Brewers' Grains, the load may need to be compacted using a tractor bucket or hand shovel, to remove air and maintain close contact between the top of the load and the sheet.
- Cover with clean, good quality plastic sheets that create an effective oxygen barrier. Evenly weight with Secure Covers and gravel bags or straw bales.
- Ensure the product is completely covered with the sheet, even at the edges, to create an airtight seal.
- Failure to ensile properly may result in mould growth, loss of dry matter and a reduction in the nutritive value of the clamp.
- When feeding starts, only expose 3-4 days' worth of feed at a time to minimise the clamp area open to the atmosphere. Placing a line of weights on the sheet, as far back as you intend to expose the feed, reduces the risk or air entering the clamp and aids keeping quality.

- Ensure the open face of the silo is kept neat and tidy. The clamp face should never be covered (unless the feed is to be ensiled for feeding at a later stage), as this will create a humid environment which could encourage the growth of moulds and yeast.
- Typical product density is 1000-1030 kg/m³
- For more detailed information please see the KW Moist Feed handling and storage booklet on our website.

Additional information

Method of production

Brewers' Grains are a co-product from the UK Brewing Industry. During the brewing process the starch in the malted barley is converted into sugars, resulting in a concentration of the fibrous and protein residues from the grains. These are separated off as Brewers' Grains, a pale brown moist feed.

Quality Assurance

Brewers' Grains are FEMAS assured (or a recognised equivalent) and marketed by KW Alternative Feeds, a UFAS- accredited merchant. Brewers' Grains is listed under 1.12.12 in the EU Catalogue of Feed Materials.

Legal disclaimer

Suggested feeding rates are produced as a guide only and many other factors may have an overriding effect on animal response; no performance guarantee can be given. Rations should be carefully balanced for energy and protein, contain sufficient forage to maintain rumen function and be fortified with an appropriate vitamin and mineral supplement. Animals must have constant access to clean water.

Brewers' Grains

Detailed Typical Analysis (fresh basis other than where stated)

Dry matter	%	18.0-24.0	Calcium	g/kg	0.84
Oil A	%	1.33	Magnesium	g/kg	0.41
Oil B	%	1.50	Phosphorus	g/kg	0.12
Crude protein	%	4-6.0	Potassium	g/kg	0.13
Fibre	%	4.09	Salt	g/kg	0.88
Ash	%	1.00	Sodium	g/kg	0.06
ME* – *in vivo*	MJ/kg DM	11.7	Copper	mg/kg	1.70
NDF	%	14.8	Manganese	mg/kg	7.90
Starch	%	0.92	Selenium	mg/kg	0.01
Sugar	%	0.53	Zinc	mg/kg	13.0
ERDP-FiM*	% @ 6%	3.36	Saturates	% of oil	20.0
DUP-FiM*	% @ 6%	1.79	Monounsaturates	% of oil	13.0
DUP digestibility	%	71.0	PUFAs	% of oil	67.0
sDM		0.12	Long chain PUFAs	% of oil	0.00
aDM		0.25	Lysine	% of CP	3.85
bDM		0.60	Methionine	% of CP	1.95
cDM		0.06	Cysteine	% of CP	2.05
sN		0.19	Histidine	% of CP	2.05
aN		0.33	Threonine	% of CP	3.80
bN		0.51			
cN		0.12			