

COMMODITY NUTRIENT PROFILE

BREWERS WET GRAINS

DESCRIPTION

Brewers Wet Grains are the portions of barley malt and grain adjuncts (usually corn) that remain following a hot water steeping (cooking). Hot water steeping converts cereal carbohydrates (mainly starches) into soluble sugars. The liquid (known as wort) containing the fermentable solubilized sugar is drawn off, cooled and used in the brewing process. The remaining solids are known as Brewers Grain.

USE AND APPLICATION

Brewers Grain is an excellent protein and energy source for ruminants and can readily make up 20-30% of the ration dry matter. Brewers Grain is a significant source of rumen "by-pass" (Undegradable Intake Protein – UIP). Brewers Grain protein degradability is equal to 0.49 in comparison to 0.35 for soybean meal. The removal of starches and rapidly-fermentable sugars during steeping lowers the potential for acidosis. In a well-balanced feeding program, Brewers Grain can be used as a roughage extender. Brewers Grain is a good source of available phosphorus, selenium, and further compliments the rations by improving palatability. Brewers Grain is low in potassium, which requires attention in ration formulation, however the low level of this mineral makes Brewers Grain particularly attractive with high-potassium forages, allowing overall potassium reduction to more acceptable levels.

STORAGE AND HANDLING

Brewers Grain can be readily kept for a short period (up to 3 weeks) or ensiled for longer storage. Grains going into "long-term" storage should be treated according to McNess recommendations. "Short-term" grains should be kept off the ground, in a pit silo, on a cement slab, wooden platform or in a simply-constructed wooden box. Minimize daily surface exposure to maintain good palatability and maximize heat retention in winter. The unique McNess "Micrapac" system utilizes a plastic silo bag to ensile a 18-27mt load of Brewers Grain to provide an ideal oxygen-limiting environment for long or short-term storage at a minimal investment. Brewers Grain is most easily handled by using

- 1. A front-end loader mixer wagon combination
- 2. McNess patented automatic pit unloader
- 3. If ensiling in combination with corn silage, haylage, or other forages or reconstituted with grain or forage

CAUTION: Freshly-delivered Brewers Grain may be quite hot and cause severe burns. Use <u>extreme caution</u> and ensure animals and children are prevented access to stored product until cooling takes place.



TYPICAL ANALYSIS

| | DMB | As Fed |
|---------------|--------------|--------------|
| Dry Matter | 100.0% | 20.0% |
| Crude Protein | 27.0% | 5.4% |
| Fat | 8.0% | 1.6% |
| Crude Fiber | 20.0% | 4.0% |
| ADF | 24.6% | 4.9% |
| NDF | 49.4% | 9.9% |
| Calcium | 0.35% | 0.07% |
| Phosphorus | 0.60% | 0.12% |
| Potassium | 0.05% | 0.01% |
| Magnesium | 0.23% | 0.05% |
| TDN (Rum) | 78.0% | 15.6% |
| NEL | 1.78 Mcal/kg | 0.36 Mcal/kg |
| NEm | 1.84 Mcal/kg | 0.37 Mcal/kg |
| Neg | 1.21 Mcal/kg | 0.24 Mcal/kg |
| DE (Rum) | 3.0 Mcal/kg | 0.6 Mcal/kg |

* Listed data are average values only and not considered as guarantees, expressed, or implied, nor as a condition of sale. For guaranteed specifications refer to feed label.

