



## BREWERS WET GRAINS

### DESCRIPTION:

**BREWERS WET GRAINS (BWG)** 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 solublized sugar, is drawn off, cooled and used in the brewing process. The remaining solids are known as **BWG**.

### TYPICAL ANALYSIS: \*

		<u>DMB</u>	<u>AS FED</u>			<u>DMB</u>	<u>AS FED</u>
Dry Matter	%	100.0	20.0	TDN (Rum)	%	78.0	15.6
Crude Protein	%	27.0	5.4	DE (Rum)	Mcal/kg.	3.0	0.6
Fat	%	5.0	1.0	NE <sub>l</sub>	Mcal/kg.	1.47	0.29
Crude Fibre	%	20.0	4.0	NE <sub>m</sub>	Mcal/kg.	1.84	0.37
A.D. Fibre	%	24.6	4.92	NE <sub>g</sub>	Mcal/kg.	1.21	0.24
N.D. Fibre	%	49.4	9.88				
Calcium	%	0.35	0.07				
Phosphorus	%	0.60	0.12				
Potassium	%	0.05	0.01				
Magnesium	%	0.23	0.05				

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

### STORAGE AND HANDLING:

**BWG** 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** "Mirapac" system utilizes a plastic silo bag to ensile a 18-27 tonne load of **BWG** to provide an ideal oxygen limiting environment for long or short term storage at minimal investment. **BWG** are most easily handled by using (1) a front-end loader - mixer wagon combination; (2) McNess patented automatic pit unloader; or (3) if ensiling in combination with corn silage, haylage, other forages or reconstituted with grain or forage.

### USE AND APPLICATION:

**BWG** are an excellent protein and energy source for ruminants and can readily make up to 20-30% of the ration dry matter. **BWG** are a significant source of rumen "by-pass" (Undegradable Intake Protein - UIP). **BWG** Protein undegradability 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 **BWG** can be used a roughage extender. **BWG** is a good source of available phosphorus, selenium and further compliments the rations by improving palatability. **BWG** is low in potassium, which requires attention in ration formulation however the low level of this mineral makes **BWG** particularly attractive with high potassium forages, allowing overall potassium reduction to more acceptable levels.

**CAUTION:** Freshly delivered **BWG** may be quite hot and cause severe burns. Use extreme caution and ensure animals and children are prevented access to stored product until cooling takes place.

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