## **BREWER'S GRAINS IN PIG RATIONS**

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Brewer's grains are used for feeding pigs around Port Moresby. This experiment indicates that brewer's grains are a useful cheap source of protein for pigs.

Brewer's grains are a waste product from breweries. They are derived from the fermentation of barley in the manufacture of beer. They are quite rich in protein, but also quite high in crude fibre, which restricts their use.

It was decided to investigate the growth of pigs with brewer's grains as part of the protein content of pigs' rations.

Three groups of pigs were each given different rations. All the rations contained the same amount of protein, vitamins, minerals and salt. One ration contained only protein concentrate, and the other two contained 15% and 30% of brewer's grains, as part of their protein content (see *Table* 1).

Table 1. Composition of rations used

Ingredient	% of brewer's grains		
ingreatent	0	15	30
Sorghum (kg)	77	65.5	54
Protein concentrate (kg) 1	23	19.5	16
Dried brewer's grains (kg)	0	15	30
Vitamin-mineral (g) <sup>2</sup>	0	33	66
Salt (g)	0	143	277
Bone ash (g)	0	440	880
Estimated crude protein %	19.12	19.24	19.34

Provincial Traders Pty Ltd, Brisbane, Queensland.

There were seven pigs in each group. The amount of food eaten daily was measured and the pigs were weighed weekly. The experiment lasted 129 days.

## Results

The growth performance of the pigs is shown in Table 2. There was little difference in the results on the three different rations. The highest level, 30 % did result in a lower growth rate. This was mainly because the pigs at less of this ration.

The cost of brewer's grains is nominal, as they are a waste product. The cost is almost entirely the cost of transportation. It is apparent from this experiment that brewer's grains are an attractive proposition for inclusion in pig rations, at least at levels up to 15 %.

Table 2. Growth of pigs on different rations

Level of brewer's	Initial weight	Daily feed consumption	Daily weight	2Feed conversion
grains	(ng)	Tkg)	gain (g)	ratio
0	12.0	1.10	246	4.51
15 %	11.2	1.09	257	4.52
30 %	12.1	0.89	201	4.52

For further details of this experiment please write to the author.

## FLOUR AND STOCKFEED INDUSTRY FOR PNG

A new company, Associated Mills Limited, will establish a flour mill in Lae, within the next 18 months. This will be followed about one year later by a second flour mill in Port Moresby.

The flour mills will purchase wheat from overseas, mainly from Australia.

Flour milling produces the important byproduct of bran and pollard which is normally used for stock feed. A stock feed mill is also included in Associated Mills' plans. Stock feed mills will be established in Lae and Port Moresby at the same time as the flour mills. The Lae stock feed milling company will be a merging of the Associated Mills' interests and the existing Kaiani Feed Mills Pty. Ltd.

A Queensland company, Gillespie Bros Holdings Ltd, is the majority owner and manager of Associated Mills. Gillespies have wide experience in the stock feeds industry.

<sup>&</sup>lt;sup>2</sup>Chemical Resources Pty Limited, Artarmon, NSW.