

Dried Brewers' Grains.

The Pennsylvania Experiment Station has lately received two samples of dried brewers' grains, a feed which is attracting considerable attention since the processes for drying have been so improved as to be practicable and economical.

The results of the analyses of these two samples are given below, together with the average of eight analyses made at the New Jersey Experiment Station, and representing the product of four different companies.

	Mr. Blocher's Sample.	Mr. Braun's Sample.	Average of New Jersey analyses.
Water.....	7.36	7.84	9.50
Ash.....	5.62	2.73	3.83
Protein.....	23.69	24.81	21.53
Crude fibre.....	13.91	13.50	13.82
Nitrogen-free Extract....	43.68	44.52	45.01
Fat.....	5.74	6.60	6.31
	100.00	100.00	100.00

It will be seen that there is substantial agreement between the composition of the sample sent by Mr. Blocher and that sent by Mr. Braun, as well as of these two with the New Jersey average. It would appear from the above that the feed as purchased by Mr. Blocher was of good average quality.

In the manufacture of beer, it is the effort of the brewer to convert the starch contained in the barley or other grain used first into sugar and then into alcohol, without removing any other material from the grain. As a consequence, the resulting grains contain larger percentages of every other ingredient, notably of protein. As regards their percentage of the latter ingredient, the dried grains are quite similar to peas, but, on the other hand, they contain nearly three times as much woody fibre as peas, and correspondingly less starchy matter. In appearance and physical properties they resemble oats or barley, but are richer in protein. Owing to their richness in protein, they can be judiciously used to balance up a ration deficient in this ingredient, and are, therefore, of special value for milk production, and, probably, for growth. At \$14 per ton, the price reported by Mr. Blocher, they would constitute a relatively cheap grain feed.

The New Jersey Station has experimented upon their use in place of oats for work horses, with very favorable results. When used instead of oats, pound for pound, in a mixed feed with bran and corn, they gave quite as good results as oats. That station prints the following table, showing the equivalent value of dried brewers' grains and oats:

TABLE OF EQUIVALENTS.

Dried Brewers' Grains.	Oats.
\$18 per ton	27 cts. per bu.
19 " "	28½ " " "
20 " "	30 " " "
22 " "	33 " " "
24 " "	36 " " "

The value of wet brewers' grains for milch cows has been almost universally recognized, the chief objection to their use being the readiness with which they ferment and decay and the danger of thus introducing undesirable ferments into the milk. These objectionable features are, of course, absent from the dried grains, while direct experiments, also made at the New Jersey Station, have shown that they are practically just as valuable for milk as are the wet grains.

Utah Dairy Bulletin.

Bulletin No. 43 of the Utah Experiment Station has recently been issued. This bulletin reports (1) "Dairy Herd Record for 1894-95"; (2) "Winter Feeding Experiments with Dairy Cows"; (3) "Some suggestions on the Building and Equipment of Factories." The following conclusions are drawn by the writer, F. B. Linfield, from the record of the dairy herd of the station, which constitutes the first section of the bulletin:

(1) It would appear that among our common cows we have those who would form a good foundation for a profitable dairy herd.

(2) The form or type of a cow is a strong indication of the milking qualities.

(3) The Babcock test and the scales are of much value to the purchaser of cows, but should be used with judgment.

(4) Tests in connection with the weights of the milk morning and evening, taken from the sixth month after the cow comes in, seem, in the majority of cases, to indicate not only the probable value of the cow, but her relative value, as compared with the other cows of the herd.

(5) From the yearly record it is clear that a herd of common cows, properly fed and handled, will return a very handsome profit over the cost of their keep.

(6) At the present prices of dairy products, as compared with the price of grain and fodders, one dollar's worth of feed, fed to a good herd of cows, will return two dollars' worth of milk, butter, or cheese.

A copy of the above bulletin may be obtained free on application to Luther Foster, Director Experiment Station, Logan, Utah.