

Feeding Value of Wheat.

These enquiries are stimulated by the anomalous conditions which now prevail in our markets for foodstuffs. Wheat has been gradually going down in price for some years past until it is now at a figure we would not have believed possible ten years ago. Corn although very closely related to wheat in its nutritive constituents, has fluctuated in price each year from causes apparently independent of the wheat supply or price.

At this time we find wheat at its lowest because they tell us, of the large supply in comparison with the demand, and corn selling at about the same price as wheat in Chicago because of the prospects of an unusually small crop in the great corn districts of the west. That 50 cts of corn should sell for as much as 60 lbs of wheat may well cause us to wonder what will happen next.

It is a good time for feeders to have their wits about them and to make the most of the situation. I do not wonder that men hesitate about feeding wheat to hogs, for we cannot help thinking of the many that must suffer for bread the coming winter. We have been taught by custom to regard this grain as in some way set apart for man's special use and that there is a defilement in feeding it to stock, while we hold corn as the food par excellence for stock and decri its upward price toward the level of wheat as altogether wrong in the very nature of things.

Let us first look at the comparative value of wheat and some of its products and compare these with corn :

TABLE SHOWING DIGESTIBLE CONSTITUENTS PER 100 LBS

	Protein.	Carbo- hydrates.	Fat.
Wheat	9 7/8 lbs.	55.3 lbs.	1.8 lbs.
Corn	7.1 lbs.	62.7 lbs.	4.2 lbs.
Dark feeding Flour	16 1/2 lbs.	49.3 lbs.	5.3 lbs.
Wheat Bran	12.6 lbs.	44.1 lbs.	2.0 lbs.
Wheat Shorts	11.6 lbs.	45.1 lbs.	3.2 lbs.
Wheat Screenings	6.1 lbs.	51.0 lbs.	2.2 lbs.

Our table shows that in the musculo making element—protein—the wheat leads, while corn excels in the fattening elements (carbohydrates and fat). We may hold wheat the better single food for the work horse and for growing animals—pigs, calves, colts, etc.—While for laying on fat when the animal is grown corn leads.

In feeding wheat we have the experiments of Dr. Voelcker of Woburn, Eng., who, after three carefully conducted trials with sheep, concluded that whole wheat produces the cheapest gain with sheep at current prices for grain and stock foods in England.

Prof. William Brown fed wheat at the Ontario Agricultural College in 1883. This wheat was a very poor sample indeed, as Prof. Brown said the millers would probably not accept such grain as a present. This wheat, ground coarse, was fed to a steer twenty months old, along with hay and turnips, with the result of 1 lb of increase for 5 lbs hay, 23 lbs roots and 4 1/2 lbs of ground wheat—a very good showing indeed.

Prof. Robertson of the Dominion Experiment Station, Ottawa, feed wheat injured by freezing with results varying from 9.1 lbs to 11.1 lbs increase for each bushel fed to heavy hogs and a gain of 14 to 15 lbs from a bushel of frozen wheat when fed to pigs.

At the Oregon Station Prof. French fed a mixture of chopped oats and wheat, equal weights, with a result of 1 lb of gain for 4.8 lbs of the feed. At this station the writer has fed wheat, corn and a mixture of the two, ground, to hogs with good results, the mixture of cornmeal and ground wheat showing the best gains for food fed. The experiments have not yet been published in detail.

In general we may expect a gain of from 9 to 15 lbs, live weight, from a bushel of wheat, the higher figure being from growing Shoats. From 12 to 14 lbs are what we may look for with fattening hogs under favorable conditions, the average being about 12 lbs of increase live weight from a bushel of wheat.

We can feed whole wheat to sheep always and to horses when their teeth are good, but generally it should be ground and for hogs it should be ground and soaked. Where one has ground wheat to feed I strongly recommend mixing it with cornmeal or shorts—preferably cornmeal for fattening hogs and shorts for growing pigs.

While it is certainly a most unusual practice I cannot see why there is anything wrong in feeding wheat at the prices this grain and corn stand at the present time. Especially is it better to feed wheat that is "off" in some way than to take the low price such grain now brings.

As to the relative merits of wheat and corn it is hard to draw any exact comparison, for we can only compare things that are alike. For growing animals I place wheat from 10 to 25 per cent above corn; for simply fattening growing hogs I doubt if it will go any further pound for pound. A mixture of wheat and corn ground, will make more pork than either one I am quite sure.

I desire to call especial attention to the feeding of low grade flour at this time. In Eng. and horses are sometimes fed bread, but more commonly our low grade flour is fed there. Prof. Prinrose McConnell reports in the *Agricultural Gazette* of London that he has fed American low grade flour for six months and is "rather surprised at the beneficial results."

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British Wheat Markets.

The London Miller sums up the position of wheat in British markets during July as follows :

The month's trade began very quietly, and no market changes of note occurred before the 7th, when Doncaster, Newcastle, and Worcester gave way 6d. per qr. for English wheat. The same day at the Baltic 20s. 8d. was taken for Argentine cargoes, 21s. for red winter and 21s. for South Australian. On the 10th, at Liverpool, 4s. 8d. per cental was made for red winter and 5s. for Californian, and the steadiness of the great port for American receipts steadied the whole trade. London (the Baltic), however, on the 12th, accepted 20s. 6s. for Argentine, though Australian was unchanged. On the 13th, Mark Lane and Liverpool were both firm, the weather being wet and unseasonable. On the 14th the country markets were so poorly supplied with English wheat that full prices were made without difficulty. On the 16th, Mark Lane was 6s. dearer on the week, but on the 17th Liverpool gave way a penny per cental for American red winter wheat, 4s. 7d. being accepted. On the 18th, the Scotch markets were quiet and unchanged, but on the 20th Liverpool again gave way, 4s. 6d. being accepted for red winter and 4s. 10d. for Californian. This weakness took its start from Liverpool. On the 21st, the country corn markets were dull, and the crop prospects were not sufficiently optimistic to lead to any price decline. Mark Lane, on the 23rd, lost the 6d advance of that day week, while at the Baltic, Argentine cargoes were pressed on sale at 20s. 3d. per qr. At Liverpool, on the 24th, 4s. 4d. was taken for red winter, and 4s. 9d. for Californian. On the 26th the Baltic was weak under large offers, and Argentine was hard to place corn at 20s. per qr. Red winter was quoted 20s. 9d. per qr. On the 28th, Norwich and several other country markets were 6s. cheaper on the week. On the 30th, Mark Lane was fairly steady for fine white wheat, including English, but was 6d. lower for foreign red wheat and for nearly all sorts of flour. The trade at the Baltic was most depressed, 19s. 6s. being taken for Argentine and 20s. 3s. for American red winter. At Liverpool, on the last day of the month, trade was miserably weak, red winter closing at 4s. 2d. per cental and Californian at 4s. 7d. per cental. Liverpool has given way for red winter

wheat 6d. per cental on the month. London decline is not so heavy

July has been a month of rather unsettled weather, marked by very violent thunderstorms in France, and by not a little electrical disturbance here. The latter half of the month has been finer than the first fortnight, yet many districts have suffered from heavy rain storms, more seriously from the 16th to the 20th inclusive than during the earlier period. There is a prevalence of mildew in some regions, and of blight in others, that must needs reduce the eventual crop out-turn. The lush growth of vegetables which distinguishes the season extends to the cereals, the straw of which is unusually abundant. Many cornfields show wheat plants 6 and even 7 ft. in height. The ears are irregular, yet often of a good size and apparently well filled. Harvest will be fairly general by mid-August, and the North of England in less than the usual number of days behind the south. The market record of the month is one of decline and disappointment. Liverpool wheat value has fallen from 23s. 4d. to 20s. 8d.; London—if an average of all sorts be struck—from about 23s. to 21s. per qr. At Paris the month's fall is from 33s. 8d to 31s. 10d. at Antwerp it is from 22s. 10d. to 21s. 10 d.; at Berlin from 30s. 7d. to 28s. 8d.; and at New York from 21s. to 19s. per qr.

Lower Freight Rates on Grain.

The continued depression in the price of wheat is promoting shippers to do considerable talking about the high freight rates which have been maintained throughout the 50 per cent. decline in the value of wheat, which has occurred during the last two years. Shippers in the Northwest, the Southwest and the Pacific Coast are convinced that the roads can well afford to carry wheat at a lower rate, and petitions for reductions are being talked of.

The charges for some hauls in the Northwest as well as on the Pacific Coast are extremely exorbitant and out of all proportion to the charges for hauling wheat the same distance on other roads; they are also too high in the Southwest. The carrier's old rule for fixing rates—"What the traffic will stand"—could be applied to the re-establishment of the rates on wheat with satisfactory effect.

The reduction of rates by the carriers would encourage shipment and insure larger exports. In cases where the freight rate is so high shippers will find it more profitable to fob wheat and many will take this course. In Nebraska and Kansas a reduction has been asked, but any such move has been headed off in Iowa by the action of the carriers in asking permission to increase the rates on grain. It is not likely the railroad commissioners will grant an increase, but the application will give them good grounds for declining to make the reduction which in justice to the grain trade should have been made some time ago.—Chicago Elevator and Grain Trade.

Difference in Pigs

There is a difference in pigs. If all men are equal, all pigs are certainly not. The farmer who goes into the pork business with that notion will soon find himself a poorer and wiser man. There's money in the raising of hogs if the work be done intelligently. They can be made ready for market in a short time, so that quick returns can be had—that is, if the breed is a good one and the animals are given proper care. The last is the great stumbling block. The majority of farmers seem to imagine that hogs cannot exist without dirt. It is almost impossible to convince them to the contrary. Mouldy corn will not answer as well as sound corn, and a wood pasture will not keep them in as good condition as a clover field. Pigs will eat and flourish on a good deal that would otherwise go to waste, but even they draw the line somewhere.