

FARMERS' COLUMN.

Hints on the Cereals and
their By-Products.THE USE AND VALUE OF MILL
FEEDS.Department of Agriculture.
Ottawa, July 28.

A leading Nova Scotia farmer points out that the average man buys the different kinds of mill feeds without knowing the grade he is buying, the value of each, or the kind of stock to which it should be fed. In this connection it may be said that numerous experiments have been made in Europe and America in order to ascertain the money value of various feeds according to the nutrients they contain, but the results have been so conflicting that Prof. Henry concludes in his standard work "Feeds and Feeding," that at present it is impossible to state the value of one feeding stuff in terms of another from calculations based upon the nutrients contained in each. The value to the farmer of these purchased feeding stuffs depends largely upon the sort of roughage and grain with which they are to be fed. Mill feeds are so subject to adulteration that several American experiment stations devote a great deal of attention to making and publishing analysis of the various brands. Some brief notes on the more common feeds are all that a newspaper article will allow.

Wheat.—Wheat is a suitable feed for all kinds of live stock, if fed with judgment. Shrunken and damaged wheat can be fed to advantage, as it may be nearly or quite equal to the best grain for this purpose. For fattening stock wheat is considered worth about ten per cent less than corn. The by-products of wheat in common use are bran, shorts, middlings and low grade flour. Bran is recognized as one of the very best feeds for dairy cows and sheep, and for horses not at hard work. On account of its coarse and fibrous nature, it is admirably adapted for mixing with corn, peas, and other highly concentrated feeds, but for the same reason it is not suited for feeding in large quantities to hard-worked horses or young pigs.

The distinction between shorts and middlings is not always clearly marked, although the former is supposed to be re-ground bran, and the latter the finer particles of bran with some flour included. The poorer grades of shorts often contain the sweepings and dirt of the mill and are not satisfactory for feeding. Middlings are especially useful for feeding pigs, along with skim milk or corn. The lowest grade of flour, frequently known as "red dog," usually contains the germs of the wheat and on account of its high protein and fat content is a valuable feed for cows, hard-worked horses and growing pigs. The better sorts of low grade flour are similar in composition to the best grades and cannot be fed at a profit.

Corn.—Corn is the best of all the cereals for fattening stock. It is used very largely in the manufacture of starch, glucose, beer, spirits, etc., and consequently has a long list of by-products. In the processes of manufacture the starch is removed, and the remainder of the grain is sold under the name of gluten feed, which is well suited for dairy cows and fattening stock. Gluten meal is gluten feed without the hulls and germs of the corn and is very rich in protein and fat. It is a capital food for dairy cows, but on account of its concentrated nature, should be mixed with bran or oats. Corn germ is very rich in protein and oil; after the oil is pressed out the residue is known as corn meal or corn oil cake, also a valuable food. Corn bran is relatively low in feeding value. There are numerous other "corn foods" on the market, but they vary greatly in composition and value and should be bought only under a guaranteed analysis.

Oats.—The feeding value of oats is well known. Oat hulls, oat dust, and oat food or shorts are the chief by-products of this grain. Oat hulls are of little value for food, but are often mixed with corn meal, etc., and the mixture sold as ground oats. Oat dust consists chiefly of the minute hairs removed from the kernel in the preparation of oatmeal. It has a fair feeding value, especially if broken kernels are present, and there is not too much mill sweepings. Oat shorts or oat food varies greatly in composition, although the better grades show a feeding value similar to that of oatmeal.

Barley.—Barley is a first class food for pigs and dairy cows. The by-products, brewers' grain and malt sprouts, are largely fed in some sections. Brewers' grains are simply barley from which the dextrin and sugar have been extracted. The wet grains are not desirable for general use, but the dried grains are easily kept and are rich in protein and fat, ranking with bran and oil meal as a food for dairy cows. Malt sprouts are a cheap and excellent food for cows, but they are not generally relished and only two or three pounds a day can be fed.

Peas.—Peas are very rich in protein and are among the best foods for

growing animals, dairy cows and pigs. Pea meal is too concentrated to be fed alone. There are no by-products in general use.

Oil Cake.—Oil cake or oil meal is a by-product of the manufacture of linseed oil. It is very rich and healthful food, particularly for fattening cattle and sheep. In its high protein content makes it valuable for feeding in moderate quantities to dairy cows, along with corn silage.

Cottonseed Meal.—Cottonseed meal is a by-product in making cottonseed oil. It is the richest of all the concentrates, but varies greatly in quality. It is not suitable for pigs or calves. Good cottonseed meal, which is a bright lemon-yellow in color and has a fresh, pleasant taste, may be profitably fed in reasonable quantity, if combined with other foods. Not more than three or four pounds should be fed to dairy cows.

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THE MILITIA

How They Were Starved by
the Tory Government.SOME QUOTATIONS FROM RECORDS
OF THE PAST.

Assuming that Lord Dandonald, in his attacks upon the present government of Canada, was actuated by no other motive than a desire to secure a needed reform in our militia methods, what reason had he to hope that a change of government would bring about a better condition? In 1891, Major-General Herbert, on assuming his duties as general officer commanding, made the following report to the government:—

"The rural corps are very deficient in instruction, but their organization is still more defective. Money is spent for instruction by officers incapable of imparting it. Their arms and equipment are for the most part obsolete. There is not a battalion that could turn out in complete marching order on a given day."

At the time that report was made the Conservatives had been in power thirteen years. That the report had little effect is proven by the Canadian Military Gazette of January, 1895, which said:—

"The militia has never been in a worse condition than it is today. Many officers who have pluckily fought against official disappointments and discouragements for years, have at last left the force in utter disgust, and men to take their places are not forthcoming. The rural battalions, which comprised the great bulk of the force, can hardly be said to exist any longer, except on paper. Ignorance, incapacity, and systematic neglect appear to be the prominent characteristics of the present militia policy, and it is time for the friends of the force to resent this treatment."

In the same year, 1895, Col. R. H. Davies, who had been an officer since 1866, in the course of an address to the Toronto Military Institute said:—

"We have no force fit to take the field,

no organization for a campaign, no stores to supply one. The militia department knows nothing about the rural militia, and cares less. Their darkness and ignorance, or worse, have prevailed for many years. The country well knows, and the department should know, that the militia is not only disorganized, but demoralized."

These were the conditions which faced Sir Frederick Borden when, on July 13th, 1896, he assumed the portfolio of Minister of Defence. No one would dare to make such criticisms today. A different spirit animates the militia, rural and city. Its needs are appreciated, and as far as possible met. In the short space of eight years it has been re-armed, properly equipped, supplied with the departments necessary for field work, and generally put in shape for active service. In 1895 there was not a regiment ready to turn out for service. In 1904, says the Montreal Herald, there is probably not a regiment that could not turn out at a bugle's call, ready for all emergencies. In eight years of Liberal activity the consequences of eighteen years of Conservative neglect have been more than wiped out. With the record of both parties before him on militia management it is difficult to see what purpose Dandonald hoped to serve, or what justification there was for him in attacking with the present government.

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