

This examination could be held under the same auspices as the agricultural examination now held. Then, instead of the judgeship being a complimentary position, there would be a regular staff of professional men who would receive sufficient remuneration for their services.

Fifth.—Some rule for judging to be adopted.—In the giving of prizes to the fattest animals, one of the objects of the society is lost sight of, that is, giving encouragement to the raising of stock in such a way as to yield the greatest profit to the farmer, and at the same time improve his stock. It has become almost necessary to spoil an animal for breeding, and we might say also for eating purposes, in order to secure a prize. It is found to be anything but profitable to feed in this way, and what no ordinary farmer would attempt. There are shows for fat stock, and that is where they should be exhibited, and not turn agricultural exhibitions into one. It is the best animals we wish to see win, and these are not necessarily the fattest. Therefore there ought to be some well defined standard for the guidance of judges, especially for live stock. At present every judge has his own opinion, and accordingly approves or disapproves, just as the animal comes up to his own standard of judgment, there being nothing settled or binding apart from this state of affairs. The adoption of a scale of points would seem to meet this difficulty. It could be printed on cards, and a sufficient number given to the judges, to enable them to give each exhibitor one and keep a duplicate. By this method they are in a better position to form a correct judgment. The rule could be easily adjusted for all departments besides live stock.

Now, we have men whose business is agriculture, managing exhibitions in their interests from which everything is excluded but what properly belongs to it, and where every department is arranged systematically. The judges will be men thoroughly posted in their business; they will receive adequate compensation for their work, and will have some rule to base their decisions on.

This state of things would do away with the oft repeated statement that is often made, that the exhibitors do not receive the amount of favor and support at the hands of farmers generally that they ought. Unless such vital reformation in the management takes place as will establish public confidence and insure protection from being duped, it requires no prophet to predict the downfall of all smaller exhibitions.

You are a slave because you leave all your chores until your regular day's work is done.

The U. S. Northwestern and Southwestern railroads have refused to comply with the demand of farmers and business men with regard to a reduction of transportation rates on grain. The complaint is that the existing low prices do not warrant high rates; but the railway authorities contend that their freight charges are already so low that the railroads can hardly live. This contention conflicts with the Wall Street reports, which announce large dividends for the purpose of booming up the price of the stock. The farmers and business men meditate waging war.

Are the Market Prices an Index to the Nutritive Value of Foods?—Wheat for Stock.

We have frequently been asked if it paid to feed wheat to stock at the prices now ruling. This question involves a principle that applies to all food stuffs, an explanation of which will enable the farmers to act intelligently in all his feeding operations. In a natural state of affairs the market price is a fair guide to the nutritive value, for ordinary experience has taught the farmer the most valuable foods, but artificial influences often interfere, so that it would be advisable for him to study a more accurate standard as shown by the analysis of these foods. But he must not suppose that a mere knowledge of the analysis will be of any practical use to him; all that this can possibly do is to enable him to acquire the practical knowledge more expeditiously and accurately.

English feeders do not allow themselves to be influenced by the fluctuations of markets; they thoroughly understand the science of cattle feeding, and are governed by the nutritive values. They do not permit any prejudice to stand in their way. They take the manurial value of the food into account. On the other hand, our farmers are so prejudiced against new systems that it is quite possible they would continue in the old rut even if all grains sold at the same price.

Any food may be taken as a standard by which all others can be measured. Let us take oats at Toronto prices at the beginning of the year, viz., 31 cents per bushel, and let us make the nutritive value correspond with the market price; then the following table will show the analysis and relative value of all the grains mentioned in the list:—

	Albuminoids (Proteins) per cent.	Carbo-hydrates (Starches) per cent.	Fat per cent.	Market Price Per bush.	Market price per 100 lbs.	Nutritive Value per bush.	Nutritive Value per 100 lbs.
Oats...	9	43.3	4.7	\$.31	\$.91	\$.31	\$.91
Wheat...	11.7	64.3	1.2	.75	1.95	.65	1.08
Peas...	20.2	54.4	1.7	.58	1.96	.82	1.37
Barley...	8	60	1.7	.60	1.25	.43	.90
Corn...	8.4	60.6	4.8	.45	.80	.57	1.02

It will be observed that those grains which contain the highest percentage of albuminoids have the highest nutritive value, and the fat has a higher value than the carbo-hydrates. It must be understood that the constituents mentioned in the table have reference to the digestible percentage of the grains. The practical usefulness of this table is that the farmer can see at a glance which grains can be fed the most economically, and when it will pay him to sell one kind of grain and buy another.

However, the actual values which the farmer may get from these foods may differ widely from the market or the nutritive value. In order to make the actual value correspond with the nutritive value the feeding must be done on correct principles. For example, it will not do to feed peas with wheat, for they are both high in albuminoids; but they may be fed with corn or barley, and wheat and oats do well together. Foods rich in fats and carbo-hydrates should be fed with those rich in albuminoids.

The question may be asked, Why is wheat nutritively so low compared with its average

market price? This arises from various causes. It is the popular article of diet for man, mainly on account of custom, but largely also because it contains its constituents in the proper proportion for the sustenance of the different parts of the body, and is therefore neither too heating nor too cooling, neither too binding nor too laxative. Oats are little inferior to wheat in this respect. Fed alone, wheat is a more complete food, for man or beast, than any other grain, but the skillful feeder can mix other grains so as to produce the same results. Foods that have a heating tendency are those which have an excess of fats and carbo-hydrates, the latter being composed chiefly of starch. The albuminoids are somewhat neutral, and the cooling property of foods is dependent upon the percentage of minerals which they contain. In order to show the relative cooling effects of these grains, we will give the analysis of the mineral constituents, viz.: Oats, 2.7; wheat, 1.7; peas 2.4; barley, 2.2; and corn, 1.5 per cent. The heating effect of corn is now made plain, and although oats have a large percentage of mineral matter, the high percentage of fat overcomes the cooling tendency.

The greatest difficulty that the feeder has to contend with is the regulating of the ration so as to prevent its being too astringent on the bowels. This depends, within certain limits, more upon the animal than upon the food, so that every feeder must be guided by his own experience in this matter, remembering that succulent foods are the bowel regulators.

With regard to the mode of feeding, wheat should be ground for stock and thoroughly mixed with other foods. If grinding is not convenient, then it may be soaked, and if fed in small quantities with other grains, it may be allowed to sprout a little. In any of these forms wheat is a valuable food for all classes of farm stock, and has great forcing properties, but the animal should become accustomed to it by degrees.

Perhaps our readers would be better pleased if we had given the views of practical feeders instead of going so elaborately into the subject; but it must be remembered that practical experience is very limited, and besides, the opinions of these feeders differ so widely that no conclusion can be arrived at. Many absurd ideas of practical feeders with reference to wheat feeding have gone the round of the agricultural press, some having even contended that wheat may be substituted for oil cake or cotton seed meal. Many a delusion has arisen from the writers quoting from English authorities, who, in speaking of nutritive or feeding values, always take the manurial value of the foods into consideration—an idea hardly ever thought of by our agricultural writers or our farmers. The novelty of the thing has undoubtedly urged many of our writers to advocate the feeding of wheat to stock, but the above table does not support their fancies, and if it can be economically fed at present prices, it must be much more skillfully used than is usually the case with the feeding of other grains.

This article does not settle the question as to whether it will pay to feed wheat to stock at present prices; but it settles this, that it cannot be fed so economically as other grains.