

several very excellent animals being stalled. Messrs. Logan's principal herd being in Ottawa, their second herd was sent to this show, and the several animals comprised in it were good enough for their owners to rely on at any ordinary show, but, in addition to having to meet the representatives of Harding Bros., of Welsford, they were up against the herd of Mr. C. H. Giles, a local breeder, and also a Vice-President of the show, who had some exceedingly fine animals, on which he managed to capture five firsts out of the six classes in which they were entered, taking a third in the remaining class. The other premiums went principally to Logan Bros., who took two out of the three special prizes given by the Holstein-Friesian Association of Canada, Mr. Giles getting the third.

In the class for beef grades, W. W. Black again had it all to himself, except in two sections, when he was easily first with exhibits of excellent quality, and the same may be said of the fat-cattle class, when he was awarded three out of the four prizes to be obtained.

The class for dairy grades (Jerseys and Guernseys) brought out some excellent animals, the judge describing the winner of the first prize as the best grade cow he had ever seen. This again was just an ordinary family cow, belonging to Mr. A. H. Jewitt, of Fredericton; the remaining prizes going chiefly to Roper Bros.

In the class for other dairy grades, which consisted chiefly of grade Ayrshires, belonging to McIntyre Bros., the judge was equally enthusiastic, declaring them, without doubt, the best lot of dairy cattle he had seen for some years; and although only grade cattle, the exhibits fully deserved all the good words he said about them.

The classes for sheep were fairly well filled, and the quality generally was very good, there not being a really weak animal among them. The only regrettable feature in the class was the absence of any really representative flock from New Brunswick, as with the exception of half a dozen sheep shown by Mr. Donald Innes, of Tobique, the whole of the exhibits hailed from Nova Scotia and Prince Edward Island, chiefly the latter.

Pigs were the weakest section in the show. With the exception of Sir Wm. Van Horne's and C. H. Giles' Tamworths, the various exhibits were only of middling quality, and not up to that standard and perfection which should be expected in a Provincial exhibition. Harding Bros. took all the money there was to be made in Berkshires; Roper Bros. and B. Goodspeed, a local breeder, divided the Yorkshire class; and Roper Bros., Sir Wm. Van Horne and C. H. Giles shared the premiums in Tamworths.

The various breeds of poultry were well represented, there being over 1,000 birds penned.

The agricultural products, with the exception of grain, were very good, and were described by the judges as a credit to any Province.

The number of entries in the dairy produce class was not large, but the quality of those competing was excellent.

Taking it all together, the exhibition must be described as an unqualified success in every way; competent judges declaring that it compared most favorably with similar shows in Ontario. The weather, which is one of the most important factors, was all that could be desired, and was mainly responsible for the record attendance. No efforts were spared by the executive to make the exhibition the best possible, and they fully deserved the success that their efforts attained. The number of people paying for admission was upwards of 30,000; which, considering that Fredericton is only a Provincial town, and unlike St. John and Halifax, has not a population of fifty or sixty thousand people, must be considered very satisfactory.

PROF. SHAW ON STOCK FOODS.

That the last word has not been said on the use of condimental or stock food may be judged from the following quotation from the new work on "Feeding Farm Animals," by Prof. Thos. Shaw, of Minnesota, just published by the Orange Judd Co.:

Condimental Foods.—Condimental foods are certain preparations added to the usual food ration for longer or shorter periods. They are mixed with some kind of meal as a basis and certain ingredients added. Some of the latter are of the nature of spices, some possess medicinal properties and yet others possess both. Of the first class is ginger; of the second, gentian, and of the third, anise. They are thus blended and fed usually with concentrated food to increase the relish for the food and to tone up the system. As put upon the market they are proprietary, and are generally sold as "Foods" or "Stock Food," with some distinguishing name prefixed to indicate the ownership. In many instances, the claims made for them are extravagant, and they are frequently sold at a price unreasonably and unnecessarily high.

The foods more commonly used as the basis of the mixture are corn meal, wheat middlings, oil meal and locust bean, but other kinds of meal are also used, alone or mixed. The ingredients added more commonly include several of the following, viz., gentian, fenugreek, ginger, caraway, anise, cummin, saltpeter, common salt, charcoal, and sulphur. Sometimes they include others of a similar class. It is absolutely necessary to use some common food as a base, otherwise the mixture would have so little bulk that it would not be

practical to spread it over prepared food or to mix it with the same in order to improve its palatability. As the amount fed is usually not more than a tablespoonful at one time, and in some instances it is less, the necessity for such blending will be apparent.

At the present time, it is popular to write and speak against the use of such foods. The more vehement characterize them as absolute frauds. The more temperate argue that when animals are in health and provided with good wholesome food, condiments are not needed, and that since wholesome food is always accessible, they are never needed. As a result of various experiments conducted to test their worth, the conclusion has been reached in some instances, that they are practically valueless, and in nearly all instances that to feed them is unprofitable. In the judgment of the author, all three classes have erred in the conclusions reached. To grant the correctness of the first view would be to assume that no honest person could engage in compounding them, a conclusion that is not tenable, as some of these foods have merit for certain lines of feeding as is shown below. To grant the correctness of the second view, would imply, by parity of reasoning, that foods are always good, that animals are always healthy, and that when members of the human family are ailing, they should use no stimulant or tonic to promote recovery. To grant the correctness of the third view would be substantially to sustain the correctness of the first and second views.

The author believes that these so-called foods, as a rule, contain ingredients that are seldom if ever harmful, when judiciously fed to animals, and that on the other hand, they may be so fed that

necessary to use more than a few pounds of the costlier ingredients to make 100 pounds of the mixture.

HEIFER VS. STEER BEEF.

With the object of finding out something about the relative value of bullocks and heifers for feeding purposes, experiments were carried out by the United States Department of Agriculture. The experiments have been carried out for some years, and the results should prove interesting. In the first trial, five animals were used in each lot; one lot being steers, another sprayed heifers, and a third open heifers. They were Shorthorns of like breeding, and treated alike previous to tests. In this case several of the heifers calved and interfered with the trial, and too much importance must not be attached to the results. The steers made the larger gain, and sold at 1c. per lb. more than the heifers. The steers made an average gain in eleven months of 806 lbs., and one heifer, clear of calf, made 775 lbs. When slaughtered the carcasses were examined by an expert, and the heifers were found to give a larger percentage of prime cuts than the steers, so that on the basis of meat and by-products obtained, the heifers were worth fully 4c. per lb. more than was paid for them. Crediting each lot with the actual value of the different cuts and the by-products, and not including the expense of killing and handling, it was calculated that the butcher made about three times as much out of the heifers as out of the bullocks.

The second trials were made with fifteen pure-bred Herefords. The animals were proportioned as before. In this case the gain by the open heifers was 1.86 lbs. per day, being greater than either of the other lots, and that too with less food and at less cost. There was very little difference between the other two lots,

either as regards gain per day or cost of the gain, though the heifers had the advantage. Carefully conducted slaughter and block tests failed to show any difference in the quality of the meat, although the percentage of high-priced cuts, ribs and loins was greater in both lots of heifers than in the case of the steers. It has been claimed that in heifer carcasses there is a greater percentage of fat, thereby rendering them of less value to the consumer. The report concludes: "It was observed in this and other investigations that under similar conditions heifers are inclined to take on flesh a little more readily than bullocks. Larger gains by the heifers may not be shown, but there is a tendency to finish at a little earlier stage in the process of fattening."

The difference between bullocks and heifers in this respect, when fed under the same conditions, has also been noted by practical stockmen feeding on an extensive scale.

The fact is emphasized that heifer beef has been much under-estimated, since in both trials the heifers have returned a higher net profit on the block than the steers, notwithstanding the fact that the steer beef was rated higher than the heifer beef. So far as could be learned from these experiments, spraying had no particular influence on the gains made.

These tests are in conflict with the American belief, but from the number of animals used the trials cannot be said to be quite reliable. On the other hand, however, the fact must be taken into account that the results are in accordance with what has appeared to many breeders to be the case.

A PHYSICIAN'S TESTIMONY TO MUSLIN-CURTAIN VENTILATION.

Editor "The Farmer's Advocate":

My attention has been drawn to articles in some of your recent numbers dealing with muslin-curtain ventilation for stock barns. I will give you an instance of this very form of ventilation which should go to substantiate the commendatory views regarding it. In the hospitals of large centers, and particularly in one inaugurating a new line of treatment in New York for consumption, this very method is used. The muslin allows osmosis of outside pure air with that of the inside impure poison-laden, thus consummating an open-air element in the treatment. It is used in the coldest weather, no drafts are felt, and all the dust of the outside air is caught and held by the muslin—in cities becoming so dust-laden that the muslin has to be renewed every few days. It



Champion Shropshires.

First-prize and championship ram and ewe. Toronto, Sherbrooke and Ottawa, Sept., 1907. Imported and exhibited by J. G. Hammer, Brantford, Ont.

they will be helpful and in some instances profitable, dependent on the conditions that attend the feeding. They are appetizing, stimulating, and act as tonics, consequently they should not be fed when animals are in good health. But when domestic animals are ailing, or unthrifty, a suitable condiment given to them for a time will frequently aid in restoring normal conditions. Some of these foods fed for a short time may prove very helpful in fitting yard horses for spring work, in stimulating the milk flow in a cow whose stomach is out of tone, and in toning up the digestion of cattle and other animals near the finishing period, when it has become deranged through over-heavy feeding. No sooner, however, is the object accomplished, than all such feeding should cease. Tonics long continued cease to be operative both in men and lower animals.

The findings of the experiment stations would seem to be based on the untenable view that they are foods, and they have so been fed to animals in good health. The idea of feeding them as foods is far from correct, as the amount of nutriment which one feed contains is not worth mentioning. But those who compound them have no right to complain, as they usually speak of them as foods.

Nearly all feeders of long experience use more or less of such ingredients, but not necessarily in the proprietary form. More frequently probably they buy two or three of the more important ingredients and compound them at home. Such preparations should cost less than proprietary foods, but the makers of the latter have a very great advantage in the opportunity they have to purchase wholesale. In any event it would seem that such foods should yield a reasonable profit to the owner when sold in large lots at not more than 5 cents per pound. It is not