

FRANK SHORE—All depends upon the feeding. I have always succeeded in getting good milkers when the cows were not overfed as calves. You can't get milk when the fat layers are on too thick. For prize purposes you must force a growth every day, to the detriment of the milking qualities.

HENRY ANDERSON—I don't believe in feeding grain to grade steers in winter. Those fed on good coarse food in winter thrive wonderfully on grass, while those fed on grain in winter seem to go back for a while unless they get grain on the grass.

FRANK SHORE—But we should feed for the English market, which brings a higher price than here by 2 to 3c. a pound live-weight, and in order to do so, we must feed grain in winter in order to get the animals into good condition by the first of July, which is the best time for shipment. During the following months, we meet with western competition. I have noticed this difference in price for several years past.

JAS LITTLE—I don't feed grain until about the first of February, and I continue it until the grass becomes luxuriant, diminishing the quantity gradually. My winter ration is cut oats, straw and hay, with corn, barley, and oats.

THE PRESIDENT—I can put more grass on the cars in the shape of cheese than you can in the shape of steers.

W. A. MACDONALD—I have figured in every conceivable way, and the more calculating I do the more I am convinced of the folly of keeping general purpose cows. I can find no substantial evidence in favor of the practice. The Shorthorn being a milker of doubtful reputation, it should be classified as a beeper. If you pay a high price for a pedigreed animal, you should know exactly what you are going to get, so that you can only make allowance for the beefing qualities of the Shorthorn. The talk of the present season is about the respective merits of the Jersey and the Holstein, so far as milking properties are concerned, but I am convinced that the Ayrshire has not received half the attention which her merits deserve. There is too great a tendency to mix up pedigree with individual merit. If the pedigree is superior, and the performance inferior, the animal is then much better without a pedigree, for the certainty of transmitting the inferior qualities then becomes greater. If we based our transactions entirely upon individual merit, no attention whatever being paid to pedigree, our farmers would succeed better in the end, both from an educational and a pecuniary standpoint; but so long as Americans make pedigree the standard, our breeders are justified in raising the standard of our Herd Book. This, however, raises the price of thoroughbred stock for our farmers without their gaining a corresponding benefit intrinsically, and inflated values are thereby established. A good animal concerns our farmers more than a pure one, although a pure-blood brings more money to the breeder. We should breed from the best dams as well as from the best sires, and in order to do so it is necessary to know the merits of the common as well as the pedigreed stock. The bull would not be "half the herd," if we knew as much about the herd as we did about the bull, and as the herd usually consists of common or grade stock, we must make merit serve the purpose of

pedigree. If some farmers' organization, say this Council, for example, would make a record of every unregistered cow that produced an average of not less than say 25 lbs. of milk daily for 9 months, with not less than 4 percent of butter fat, the nucleus of a momentous work would begin. I say "unregistered" because the business would then not interfere with our breeders who are doing a noble work in their own sphere, and who follow a different standard. By such registrations the price and value of the stock would rise, and the buyer would be profited as much as the seller. Such stock would in all probability produce their like, especially if the milking qualities could be traced to the dams and the grand dams. There should be three registration books, the first to record cows having the standard of butter-fat, the second having this standard and also the requisite quantity of milk, and the third should contain these standards with the cost of production added. The sphere of operation should first be confined to Middlesex County, where some member of this Council could supervise the tests say once a month, and the cost of production could be tested by bringing the competing stock together at our local exhibitions. The field of operation could be extended as fast as farmers' clubs could be amalgamated with this Council.

The President spoke on the question of having a separate registration book for the recording of unregistered stock, making individual merit the basis of qualification. He fully accorded with the views of the last speaker. He believed that the merit standard was the farmer's standpoint, and the Council was organized in the interests of the farmers. He could not see why this standard should provoke any opposition from the breeders. It was the correct principle and would receive scientific sanction, while the pedigree standard received no recognition from science in testing the breeds.

TESTING MILK AND CREAM.

The President drew attention to the fact that no definite conclusion was arrived at with reference to what was to be done with the test instruments which the Council had sent to Germany for. The season was now advancing, and something should be done as soon as the instruments arrived, which were expected in a week or two. He was pleased to learn that the Vice-President of the Council had been appointed by the Ontario Creameries Association on a committee to examine into the most practical method of testing milk and cream, and he believed the Council should do all in its power to aid the committee, for the investigation was one of extreme urgency at the present moment.

The Secretary read a letter from Mr. Valancey E. Fuller, Hamilton, stating that he was willing to do all he could to assist the committee.

W. A. MACDONALD—Mr. Fuller is a member of the committee. He has recently established a chemical laboratory at his own expense, and no man in Canada has such a good opportunity of aiding the cause of dairying. The other member is Mr. J. W. Robertson, the dairy expert at the Model Farm, who is equally enthusiastic in the same cause. Being the other member myself, I wish this Council to instruct me how to vote in case the committee should

dispute as to whether the analyses should be made by Mr. Fuller or by the Model Farm.

After a few remarks by several members, Mr. Henry Anderson moved that the Vice-President be instructed to vote to have the work of the committee done wherever the greatest facilities could be offered in the interests of dairying. The motion was carried unanimously.

CONSTITUTION AND BY-LAWS OF THE COUNCIL.

A committee consisting of Henry Anderson, Frank Shore and W. A. Macdonald was appointed to revise the Constitution and By-Laws with a view of having copies printed for distribution about the middle of September. The revising committee will meet instead of the Council at the next two sessions, and there will be no regular Council meeting until Sept. 18. It is the object of the Council to encourage farmers' clubs in other sections of the Dominion to amalgamate with the Middlesex Agricultural Council, and copies of Constitution and By-laws and other literature will be distributed free of charge.

The report of the analytical chemist of the U. S. Department of Agriculture, summing up the results of analyses of nearly all the cultivated grasses, says: "It is apparent, then, that in most cases the time of bloom, or thereabouts, is the fittest for cutting grasses in order to obtain the most nourishment and largest relatively profitable crops, and for the following reasons. The amount of water has diminished, and the shrinkage will therefore be less. The weight of the crop will be largest in proportion to the nutritive value of its constituents. The amount of nitrogen not present as albuminoids will be at its lowest point; fibre will not be so excessive as to prevent digestion; and the nutritive ratio will be more advantageous. If cut earlier, the shrinkage is larger, although the fibre is less, and albumen is a little larger. The palatability may be increased; but the total nutriment to the acre will not be so large, and the nutritive ratio will be more abnormal. The disadvantages of late cutting are evident in the increase of fibre, destroying the digestibility of the nutriment, and the falling-off of the albumen by conversion into amides. This is not made up by the larger crop cut."

Mr. John Hannah, a dairyman near Seaforth, has been testing the relative values of cream from the herds of his different patrons, and, taking 100 percent as a standard, he found that the cream varied from 81 to 135, which is as much as to say that if one patron receives 81 cents for a certain volume of cream, another should receive \$1.35 for the same volume, whereas, according to our usual custom, the sum of these amounts would have been equally divided, giving \$1.08 to each patron. He, however, pays for cream according to its value as ascertained by the Cherry test churn.

The sulphide of potash is highly praised in England as an efficient preventive against and remedy for mildew. It is used, according to the London Garden, in the strength of one-quarter or half ounce to a gallon of water, and is best applied by means of a spray nozzle. It is claimed that this solution does not injure the foliage in the least, and leaves no unsightly masses of yellow, as is the case with sulphur,