

Dairy.

American Dairymen's Association

Held their sixteenth annual meeting at Watertown, N. Y., President Professor Arnold in the chair. The meeting was largely attended and was very successful. It is said to be the best held for several years. Several able papers were read, and the discussions were animated and instructive. From these discussions we take the following:— It was claimed that genuine economy in the dairy demanded that dairymen should raise their own cows, and that special selection of the breeds should be made according to the purpose for which they are wanted. Hon. Harris Lewis recommended Shorthorns, Alderneys and Jerseys. For cheese-making, Ayrshires and Holsteins. He also said, for the best results, cows must be fed and milked regularly. Pure air and pure water and suitable food in sufficient quantity must be given. Handle kindly or the best results will not follow:—

HOLLAND CATTLE.

Solomon Hoxie, who has visited Holland and Friesland for the purpose of selecting cattle, read a paper on Holland cattle. The history of Holland cattle goes back to 300 B. C. In Europe they are called the low-land race. During the last twenty years large numbers have been imported to the United States. These low-land cattle, though showing the same characteristics, are of different breeds. The best low-land cattle are found in North Holland and West Friesland. The cattle of West Friesland must be placed first in point of superiority. In 1879 the markets of Friesland exported 46,168 cows and 19,020 calves. Mr. H. thinks these will, from the same amount of food, give more milk, butter, cheese and beef, than any other breed, and they are hardier.

Professor Roberts, of Cornell University, said that with the cheese dairy came malignant forms of abortion. The flow of milk has been alone considered and developed, and the udder has been so expanded that the walls of the artery could not contract, so that the embryo starved to death.

Pure air will not totally banish disease from our herds, but by it disease among our herds will be partly lessened.

Dr. Cole asked if when tuberculosis was partially developed, would it be advisable to use the milk.

The Professor replied it would not. The symptoms of tuberculosis are different. The most common symptom is swelling about the jaw and throat. It also appears in the lungs and bowels. The calves of animals thus affected are affected with chronic diarrhea. The lungs of the animal become enlarged and there is a discharge of mucous matter from the nostrils. The bad odor emanating from illy-ventilated stables will affect the milk.

Mr. Scoville's paper on "Frauds in Butter Making" described the process of making imitation butter, and claimed that they are only just beginning to feel the effects of adulteration of dairy products. Suetine, made principally of lard, is sold in large quantities, and is a dangerous counterfeit. The speaker said that the English Government was taking steps to ascertain what stuff was being sent there as butter and also as cheese. A letter was read from a Liverpool merchant, claiming that unless the adulteration of dairy produce is discontinued the importation will be stopped unless goods are accompanied by a guarantee of genuineness. The Crapser lard-cheese method of adulteration was taken up, and facts and figures were given to show clearly that the dairymen of St. Lawrence County would certainly lose by it.

Much discussion took place, but nothing definite was resolved upon.

Letters were read from different parties in regard to these adulterations, from Chicago, Philadelphia and New York, one party expressing the belief that the dairy community had lost no less than \$1,000,000 during the past season from the sale of adulterated butter.

Hon. E. S. Crapser was present, and explained his process of making "lard"-cheese from skim milk to an audience not very much inclined to be in sympathy with such a departure, but Mr. Crapser was quite good-natured, and answered a shower of questions. He did not claim that the lard-cheese would equal in quality a full cream cheese, but would add to the value of poor skims. The machine made for the purpose of mixing the lard into the milk costs \$500. This machine is patented, and the process of mixing is patented.

It takes considerable steam-power to operate it; in fact, it would seem that too much patent and expense attends this new method to make it profitable for the dairymen. One of these cheese was on exhibition at the Convention, and various opinions were expressed as to quality, etc. Only a few have been made this past season and it may be said to be yet an experiment. The question with dairymen is whether it will not be cheaper to keep a better class of cows, as Mr. Lewis recommends, take good care of them and feed them rich concentrated food, thus getting more and a richer quality of milk, which may be skimmed, three or four pounds of cream to the 100 lbs. milk, and still have the milk left good enough to make a cheese that will sell for not over two or three cents per pound less than full creams, or equal to lard-cheese at less cost. Professor Caldwell presented a scientific paper on the chemical and physical changes of milk. To get better butter and cheese, we must increase the fatty material in our milk. In England the standard of milk is 2½ per cent of fat. In Paris 3 per cent. is adopted. The specific gravity of pure milk should be 1.291000 at 60° Fahrenheit; if below this it is impure.

The subject of ensilage was discussed. There seemed to be some difference of opinion as to whether this article is just the right thing to feed cows for butter; it makes an excellent fodder for winter feeding.

The following resolution was adopted by the Convention:—

Resolved, That we are in favor of making whole milk cheese and butter from pure milk only.

Producing Milk in Winter.

First, then, the winter dairyman must provide a stable which seldom freezes, and with such non-conducting walls as will keep the temperature as uniform as possible. The udder of the cow is disagreeably affected by cold, and milking in a cold stable is very painful to the cow. It is unprofitable to allow a cow in full milk to drink ice-cold water, as its chilling effect will reduce the milk yield. When a stable is provided that maintains a pretty uniform temperature of about 50 degrees, with water at a temperature no lower, then good food will produce as good a flow of milk in winter as in summer. Such a stable, and water of a summer spring temperature, will pay all its costs for wintering cows not in milk, or for feeding other cattle, but for winter dairying it is indispensable.

With such a non-freezing stable, the dairyman may produce an excellent quality of milk with early cut and nicely cured hay, whether of clover, blue grass, timothy, or a dozen other grasses—and the greater the number the better—supplemented with six to eight pounds of grain, or the by-products of grain. The best hay will produce a fair quality of milk, but not a maximum quantity. It is so seldom that hay can be provided as perfect as the grass from which it is made, that the only way to give a complete ration in winter, with hay, is to feed grain in some form in connection with it. The hay furnishes an excellent ration of support, and the grain may be added as the ration of production, but in all cases the farmer should know the cost of the feed which each of his animals consumes, also the cost of labor involved as nearly as possible. An observant feeder can easily ascertain the amounts, without adding any additional cost and with very little trouble. When this is known, then find out the cash value of the products of your animal; by this means you can easily tell what plan of feeding pays you best, and just how much profit you receive or what you lose. This close calculating is something farmers as a rule do not follow, but which they would find very profitable in more ways than one.

SORE TOES IN CATTLE.—Remove the animal to a dry, well-bedded stall; cleanse the feet thoroughly; apply ample poultice of equal parts of bran, flaxseed meal and charcoal, during a day or two. Then apply, twice or thrice daily, for a few days, by means of a feather, a portion of a mixture of two ounces of oil of turpentine, half an ounce of sulphuric acid, and one ounce of olive oil. Carefully remove decayed portions of horn, so as to avoid wounding vital parts. Subsequently fill the clefts with pledgets of oakum or tow, saturated with equal parts of tar and tallow, melted together.

The Butter Product.

In no single department of agriculture have more experiments been made than in setting milk, resulting in great progress, not only in the extraction of butter of superior quality, but also in increased quantities. However, it is still an open question whether this noticeable progress in dairy husbandry is owing to superiority in the implement employed or to the superior skill of the operator. It seems to be a settled point that the butter produced at the creameries is superior in quality to the great mass of that made in private dairies, and in this case both improved implements and superior skill on the part of the operators combine to give the desired result. It needs no argument to convince intelligent persons that a dairyman in a well appointed creamery, whose whole energies are devoted to one object, can excel in butter making the individual who is employed in that occupation but a few hours in the week. Creameries get a product that is stamped with uniformity in quality and appearance, and that is the result of the highest skill in the art, aided by the latest improvements of scientist, inventor and mechanic.

Notwithstanding the superior advantage possessed by creameries in the production of butter, it is yet a notable fact that the gilt-edge butter which is seldom forced to seek a customer, but which passes almost directly from producer to consumer at fancy prices, is the product of small dairies, where the milk is set in shallow pans and where the numerous patented implements are unknown. Here then it is evident that individual care and skill is the principal factor in the production. Only a short time ago it was thought the creameries would drive the small dairies out of existence, but opinions are changing; the tastes and requirements of consumers, especially of those who demand the best grades of butter, are again in the direction of the products of the small dairies.

Wintering Dry Cows.

Every intelligent dairyman knows that a cow in good condition when she comes in, will be much more profitable during the milking season than if poor. The tendency of a good cow is to turn all the food she can spare into milk, and will often draw on her own body to increase the flow of milk. If she be in fine condition on coming in, this extra weight of flesh will be all drawn off in milk during the season. When he is putting weight upon his cows during the winter, he is as certainly producing milk as when he feeds during lactation. This extra flesh represents so much milk, and may be safely calculated at 6 lbs. of milk for every pound of extra flesh she puts on; and, besides this deposit of milk in the body, subject to future draft, she will be able to apply more of the food she eats during the season to the production of milk. If she is poor when she comes in, then she must apply to her own wants some of the food that might otherwise go to the production of milk. But care must be taken not to give too much corn meal or other heating food while she is dry, for this may put her system into such feverish condition as to cause milk fever after coming in. The best of care should be taken of cows while dry.—N. L. S. Journal.

Nineteen mammoth cheeses were made at J. S. Henderson's factory, near Ingersoll, Canada, for an English Christmas market. They were of fine quality and weigh about 600 lbs each.

Water made slightly salt, and to which bran in the proportion of one quart to every gallon has been added, is said to increase the yield of milk by 25 per cent., if it is given to cows as their ordinary drink. After a short time the cows will refuse pure water, unless they are very thirsty.

Linseed meal is often found of more feeding value than the seed itself, because in making it into cake 25 per cent. of oil is pressed out, leaving only 11 to 12 per cent. in the cake. This increases the percentage of albumen about 5 per cent., making linseed meal contain 28 per cent.