

dry. When the curd is out of unequal sizes this always happens; the larger pieces retain more water, more whey, than the smaller ones, and, in consequence, are softer; just so is it with the pieces that have been kept less hot than the rest. And what follows is this; the softer parts become acid, are dissolved, and ruin the color by some chemical action. If the curd be uniform, the color will be uniform. Hence, the importance of cutting the curd very equally, of always having the temperature well under command, and of maintaining it equal over the whole of the curd.

**A VOICE.**—What temperature ought to be kept in the cheese room?

**MR. MCPHERSON.**—Seventy degrees. It is a mistake to think that a defect in the color of cheese is due to the coloring matter. This is usually well made; but the fault is generally in the maker, and not in the color. Every one knows that cheese become sour, becomes also white; this proves that the cause of the decolorisation of cheese is—acidity. And apropos to this point, I must tell you that it is a very bad plan to keep curd from one day to the next; this ought never to be done. Far better make it into small cheeses and keep them for the patrons.

**M. PAUL CÔTÉ.**—Would Mr. McPherson repeat what he said about the temperature, the putting the rennet into the milk, &c.

**MR. MCPHERSON.**—As to the rennet, the heat is the same at all seasons—84° F. The milk, in spring, ought to take ten or fifteen minutes after the rennet is added, and be fit to cut 40 or 45 minutes afterwards. In summer, with sweet milk, rennet should be added so that the milk may begin to curdle in 20 minutes, and be fit to cut in 60 or 70 minutes.

**A VOICE.**—Why should milk coagulate sooner in spring than in summer?

**MR. MCPHERSON.**—In spring, on account of the fresh, cool state of the air which then obtains, milk wants a great deal of rennet to hasten its ripening. If the quantity of rennet is not increased, the cheese would take too long to ripen.

**HON. J. J. ROSS.**—Must cheese necessarily be colored?

**MR. MCPHERSON.**—Some markets ask for colored, others for white cheese. Each must be guided by his own judgment; and the same for the best time to sell. If you think colored cheese will pay best, color it; if not, do not color it. Colored cheese is not in such request as formerly; white has the call over it. There are only a few markets, such as London, Liverpool and Glasgow, that seek for colored cheese. Bristol and Manchester take white.

**M. CHAPUIS.**—What do you think of the effect of ensilage on milk?

**MR. MCPHERSON.**—I hold ensilage, properly used, to be a good food. It is not a complete ration; it wants, as a complement, a flesh-former, being itself a heat-producer. Clover-hay and bran are foods fit to supply the defects of ensilage.

A milk-cow requires one part of flesh-forming food and five parts of heat-producers; or, if you like it better put in this way. 1½ lb. of flesh-formers and 12 to 14 lbs. of heat-producers. Corn produces only heat; it contains only one part of flesh-formers against 12 of heat.

Wheat-bran contains 1 lb. of flesh-formers to 4½ lbs. of heat-producers. Therefore it must be a good aid to ensilage.

Timothy-hay has about the same proportions as ensilage: one of flesh to twelve of heat.

Clover-hay in itself is much more perfect. It holds one of flesh to six of heat; it is a perfectly balanced ration in itself.

Cotton-seed is excessively rich in flesh-formers. It contains 1 of flesh to 1½ of heat. This seed, in cake or in meal, should be used especially as a complement of those foods in which the heat-producers predominate.

Of bran 4 lbs., 5 lbs. of cotton-seed, and from 60 to 70 lbs.

of ensilage appear to me to form a perfectly well-balanced ration; and, at the same time, it is the least costly mixture to be found. These different foods all balance one another, they are well assimilated by the animal, and they form an excellent ration for the production of milk.

Clover-hay and ensilage together make an excellent mixture.  
**M. DION.**—Has ensilage any effect on the quality of the milk?

**MR. MCPHERSON.**—Personally, I have no experience on this point, but I was at the Vermont Dairymen's meeting, at Burlington, last week, where I met several butter-makers who fed their cows on ensilage, and who got 75 cents a pound for their butter in Boston. Mr. Dawes, too, of Laclino, furnishes the Windsor Hotel, at Montreal, with cream at a dollar a gallon, and his cows are ensilage fed. But, as I said before, ensilage, must not be given alone, but with grain, bran, or clover-hay.

Many thanks, gentlemen, for the attention with which you have listened to me. I am happy to have been amongst you here to day, and I hope the few remarks I have made will be of service to you. What I have told you is founded on practice; it is what I have done myself successfully; and you can all put it in practice without fear of the results.

**M. TAOHÉ.**—Last year, at the invitation of the Dairymen's Association, Mr. McPherson paid two gratuitous visits: one to St. Hyacinthe; the other to Montmagny. M. l'abbé Gérin, whose district has not yet had the advantage of receiving a visit from Mr. McPherson, has begged me to ask him to visit the North next spring. Mr. McPherson accepts M. Gérin's invitation with pleasure, and will go to Louiseville, to give a lesson to the cheesemen who will meet there on some day to be announced beforehand.

The Association is indebted to Mr. McPherson, and thanks him for the kindness with which he has always granted it the services of his vast experience.

#### The best use of Clover.

In this country—or at least in the older States—clover is the chief crop upon which the farmer relies for improving or maintaining the fertility of his land. Other crops are sometimes substituted, but never with such good effect as clover. There are many ways, however, in making use of clover as an improver of the soil which are attended with different degrees of benefit. And while much depends on the locality, distance from market, &c., there are certain principles which are alike applicable to all cases. The roots of clover are the most important part of the plant, so far as the improvement of the land is concerned; not that the tops are any the less valuable, but that there are many other plants which for bulk and quick growth above ground may be said to excel it, but which when turned under with the view of improving the land are far less beneficial in their effects. Buckwheat, for instance, has a much more rampant growth of top, but the effects of this when turned under are not near as good as those of clover. And why? Simply for the reason that buckwheat and such annuals as it, do not penetrate the subsoil and bring up therefrom and deposit near the surface the mineral matter contained therein, and which is so essential to the successful growth of plants, their growth being due only to what the roots took from the ordinary surface soil. In other words, the roots of the clover plant bring up fertilising matter from the deeper subsoil, which the roots of buckwheat and such other annual plants cannot reach. Clover should never be turned under until it has attained its largest growth, as well