interests with greater force, and draft resolutions, etc., for the improvement of laws which may not appear to us to be agreeable to our greatest advantages. If we do not come together in this way, how can we have force? One man may see what he thinks a defect, because of a misunderstanding of the facts, and if he does understand them it is with much more difficulty that he is able to get his brother farmers to lend him assistance, even with their names, because of isolation, whereas in an organized body he is able to lay the whole matter before its members as easily as to a single person, hence it is easier to obtain legislation in any direction in this way than single-handed.

(3) We are the great producing class in the land. When we are pinched in any way for any length of time those who do not feel it are but very few, an example of which we now see in the great depression which has been so general for the last few years. It is exceedingly necessary that we should be organized in a noble body, and stand for a noble cause. Not only is this neceasary for our own particular interests, but for the welfare of our country. If we are awake to our best interests we shall come together and interchange ideas, and discuss questions relating to our business with a liberal mind and free heart, willing to teach and be taught, endeavoring with most earnest zeal to find the best way to lighten our burden and enhance our income, to improve the quality of our products and decrease the cost of production. By doing this we shall find that we help ourselves very materially, and improve the conditions of the community in general.

If, when we are in a depressed condition, others feel it so sorely, in like manner they will rise out of depression as we do. Not this alone, for as we learn to improve our products we increase the demand for them, and as we increase our products we in like manner increase the wealth of the country. On the other hand, as we decrease the cost of production, we greatly enhance the returns and the more freely money is floated; hence you see the vast importance of farmers working together. The great work we have to do cannot be done single-handed. The millions of dollars which are possessed by individuals are influenced to circulate to a greater or less extent by our own efforts which tend to improve our products. These are the very people we want to expect to suit with our products, and if we do this we'll be well paid, for they will pay well for a first-class article. Give the Englishman good butter, cheese and beef, and the American fine mutton, and a horse of good size, with handsome *style* and *action*, and in return they will pay you a good, handsome price for them.

We may not be able to take a handful right out of the pile of the millionaire, but if we want his pile floated we must pitch everything we have at it; if we don't it will not go in a long time, for in our products the germ of *excellency* must be placed, which when it reaches him will create a greater desire for it than his money. When we accomplish this feature we may expect to get some of his pile.

Signed on behalf of press committee, Union Grange, No. 108.

S. P. BROWN, Chairman.
W. J. PHILP, Master, } Whitby.
T. E. PHILP, Secretary, }

Dairy.

Points in Dairy Practice.

Our wide-awake contemporary, the Farmer's Review of Chicago, quotes what the FARMER'S ADVOCATE had to say recently against the use of "preservaline" in milk by factory patrons, and heartily endorses our position.

* * *

According to tests carried on at the Iowa Experiment Station quality of milk, so far as measured by its percentage of fat, was changed by feed to a much greater degree than was quantity. Two-thirds of the increase in average gross yield of butter fat was due to improved quality of the milk, and only one-third to increased milk flow. In the published statement it is not shown whether the increased yield was profitable or not, and if it was to what extent. So much, too, depends upon "individuality," that general conclusions should not be hastily drawn from some of these cow feeding tests.

* * *

Do not many of our cheesemakers keep their make-rooms at an exceedingly high temperature, especially in summer weather, with doors shut and windows all down? Speaking on this point to the writer recently, Mr. Dillon, Superintendent of Dominion Experimental Dairy Work in Western Ontario, declared that while the curds should be protected from drafts, he was satisfied that many makers were unnecessarily punishing themselves with heat.

* * *

From the Salford, Ont., cheese factory, comes the report that some remarkable results have this season been attained in cheesemaking, by setting the milk at 80°, and the "cooking" of the curd performed at 84° instead of 98°. The theory is that the loss of butter fat in manufacture is largely the result of too high heat in scalding. The maker took a vat of milk and divided it, making one-half by the usual 82° and 96° plan, and the other half by the 80° and 84° plan. It took a pound more milk to make a pound of cheese by the 96° plan than by the other, and the 84° plan gave the finest cheese. The curd is allowed to remain in the whey about three hours, instead of from an hour to an hour and a-half.

* * *

After twice investigating the subject of cream raising by dilution by an extensive series of tests at different seasons of the year, the New York Experiment Station at Ithica reports as follows:—"In all the trials we have made in diluting milk we have never received any advantage from the water added, in fact, in all the cases but one the addition of water, either hot or cold, has been a distinct disadvantage. In one case the amount of fat in the skimmed milk was practically the same for the diluted and undiluted samples." Have any of our readers had any experience in this matter? We understand that not a few regular butter dairymen, not having ice or cold running water to use with their creamers, have found by actual practice that it paid to dilute the milk. It is not a new theory that to put water into milk under certain contains would faciliate cream raising.

* * *

According to a test at the Maine Experiment Station a delay of from one-half to an hour after milking before straining and setting "does not seem to materially affect the completeness with which the cream will rise." Prof. Wing, of the New York Experiment Station, reached a similar conclusion, but qualified his statement by saying there was slight danger of loss in fat in delaying the setting for a considerable time, "particularly if the temperature of the milk does not fall much below 80°." As it would be very likely to cool down a good deal, especially in winter, besides being more or less liable to take up various stray odors, the FARMER'S ADVOCATE warns its dairy readers against delay in milk setting.

* * *

Bulletin No. 14 of the New Hampshire Experiment Station claims the following advantages to dairy farmers on behalf of the silo:—1. More food material can be produced on an acre from corn than from any other farm crop. 2. The cost of 100 lbs. of dry matter is slightly less in corn than in hay. 3. Green food is especially favorable to the production of milk. 4. Silage is comparatively convenient and cheap. 5. It makes the farmer independent of the weather (except, we presume, when being filled).

* * *

A Mississippi dairyman, who could not get the cream out of the milk before it soured, to make more than four or five lbs. per day of butter from eight cows, was agreeably surprised to get 7 and 7½ lbs. per day of better butter when the milk was run through a centrifugal cream separator.

* * *

At the Texas Experiment Station it was shown that the use of cotton seed meal in a grain ration for dairy cows caused more complete separation of fat from milk in the deep setting process of raising cream, but where the cream was taken out by the separator the food made no difference. It was also shown that the separation of cream by setting milk in cans was less perfect when the cows were advanced in lactation than when nearly fresh. The influence of the stage of the milking period in this respect was very marked whether the food contained cotton seed meal or not.

* * *

C. S. Arnold, of Walworth Co., Wis., regularly salts his sweet cream as soon as skimmed, using two ounces of salt for each pound of butter expected. He does it for three reasons:—1. To avoid acidity and fermentation in cream while he waits to get a "churning;" 2. To get more exhaustive churning of the cream; and 3. To make the butter "come" in less time.

Watch the Churn.

"The greatest thief of butter fat I have ever detected about my creamery," observes Mr. Jas. Carmichael, of London township, Ont., "is the churn. It must constantly be watched, for which purpose I use the Babcock in testing the buttermilk." Now that the winter dairying season is approaching, a word of caution on this point, if needed, may save many a buttermaker from severe losses. It is not enough that the milk be creamed exhaustively, eternal vigilance and skill must characterize the dairyman's method of handling the cream and churning in order to obtain the greatest profit. Those who propose starting creameries or winter buttermaking in cheese factories, should take warning on these points in time from those who have had experience. To gain experience by blundering on in the dark in dairying, is too expensive for people of ordinary means, whether they be makers, proprietors, or patrons.