

come down to us shielded under the sacred name of truth? Numerous instances can be pointed out in which the results of investigation have come to us under the cloak of science, and upon deeper research, it was found that some of the principles affecting the conduct of the experiments were false. In other instances hot-headed experimenters have advanced theories, and have taken every precaution to arrange every detail of their experiments so that the results would harmonize with their preconceived theories.

Whether we as farmers should accept agricultural science as our guide, "All depends upon circumstances." There is always a great deal of competitive strife for popularity amongst our agricultural investigators, and reports of every trifling experiment are scattered amongst us for the purpose of convincing us that the manipulators are dearly earning the money which comes out of our pockets. Are we to accept all this rubbish as science? Is there one ounce of truth in every ton of it? If I were asked if these stations should be abolished, I would answer, "All depends upon circumstances." If agricultural writers will guarantee to give us nothing but the pure science, explain to us in each instance where the theory ends and the science begins, depend only upon the results of professional experimenters of established character, study our circumstances and necessities, and show us in plain language how we can apply the science to our individual wants under our varying conditions and circumstances, then we will applaud science, and I venture to assert that it will be the means of elevating the farming community from their *down below* practice high upward to the art—*up above*.

PRIZE ESSAY.

How can Greater Confidence be Best Secured Amongst Dairy-men, Patrons and Dealers.

BY D. LEITCH, MOUNT BRYDGES, ONT.

The dairy industry of Canada during the last twenty years has made rapid strides, particularly in the production of cheese, but is capable of still greater extension in quality and quantity. This desirable result must be accomplished through the co-operation of both manufacturers and patrons, who must produce the raw material, milk.

The manufacture of cheese is carried on in Western Ontario chiefly by private individuals and companies, each of which systems has some merit. The company factories have flourished in some localities chiefly by inducing a number of the leading farmers to take shares or stock in the same, which is a source of strength to them, but not so in private ones, whose weakness consists chiefly in having managers who know nothing practically of the article they produce, consequently, they are at the mercy of their cheesemaker and of the article manufactured. This is a standing error, for the maker and the produce change generally every year. Private factories are conducted by practical farmers or cheesemakers who have by prudence and forethought saved their earnings. Some are also managed by speculators, who buy and sell cheese for a speculative consideration.

The value of the private factory consists in being under the control of men who understand the science and practice of their business. The property being their own causes them to make every effort to enhance the value of the same, and to please their patrons, knowing that they must produce a superior article in order to bring the highest price, and being connected with their factories from year to year, enable them to improve and carry out any suggestions coming from any quarter that will improve the article under their control; hence we find that whatever improvement has been made in quality has been chiefly through the efforts of this class, who should therefore command the full confidence of their patrons by furnishing them with the material in its purity—no watering, skimming or holding back strippings; and perfect cleanliness should be exercised in all vessels used in milking, or carrying the milk to the factory. This should be the inviolate rule of all patrons.

Mr. J. B. Harris says that there is more confidence between dealers and producers in Scotland than there is in Canada, which would imply that there is more honesty in that country than here; but the reason to my mind is this: In that country the producer and the consumer are close together, rarely more than fifty miles apart and hence there is less risk on the part of the buyer. In this country dealers have to be more cautious, knowing that their customers are thousands of miles away, and that dairy goods are continually changing in their condition, so he must be more alert in order to judge their merits for his market. It is not because the producer is less honest or inclined to take advantage of the unwary dealer; for we find by experience that there is already a large measure of confidence established between our oldest dealers and manufacturers. We are cognizant of one transaction to the amount of \$20,000 by a dealer in London from one manufacturer in Middlesex county last fall, without seeing the goods; and they were shipped to parties in Britain and sold on a small margin; the money was drawn on the goods and paid to the producer before he left the city.

In conclusion I may say there is no royal road to gain confidence in dairy matters, except through the narrow and straight path of honor, justice and integrity. This is the golden key that unlocks the door to confidence in commercial matters, and I cannot recommend any other course.

Experiments made at the New York station proved that a low temperature alone was not the cause of seed corn rotting in the ground. It was ascertained that moldy seed, or seed taken from moldy cobs, was favorable to rot and unfavorable to germination and growth. An experiment was also made with regard to loose vs. firm covering of the seeds, and it was found that hills with the soil firmly packed over the seed produced better results than those with the soil covered loosely with the hoe. These are experiments which every farmer can make for himself without extra labor or expense.

A motto for the breeders of dairy stock—The best is not too good.

A sure prize winner is not a sure "getter." Better stock doesn't make better manure.

The Dairy.

How to Improve Your Butter.

BY M. MOYER.

The time is rapidly approaching which will find us once more in the midst of our dairy work for another season, and as the country has again sustained serious losses through the badly marketed butter of last season, every precaution should be exercised to avoid the mistakes we made. For the storekeepers, who have been the heaviest losers, I see no hope, but must repeat what I often said before, that they have no business to handle butter at all. They are not in a position to do justice to themselves or to those who make the butter. On the part of the farmers there is hope, and room for improvement, and it is in their hands to make butter making satisfactory and highly remunerative. To accomplish better results, there must be co-operative work, united effort, and each one must do his duty, not only for his own individual benefit, but for the good of the butter industry in general.

There should be a willingness on the part of the farmers to support any enterprise which is calculated to improve and to overcome the causes which have ruined our butter trade. The tastes and wants of the people are becoming more refined, and the butter made collected and mixed in a haphazard way, will no longer do. Inferior butter is not wanted, and even the abominable practice of coloring it will not make it palatable to the taste. It is taking dishonest means to hide our sins and to deceive others, and is little less reasonable than putting green goggles on a cow to make her eat shavings for grass.

It is discouraging to us who are laboring among the farmers with a view of improving our butter industry, when we see that coloring is recommended by men who would consider themselves contemptibly dishonest if they would recommend that good wheat should be put on the top of the bag to hide the inferior stuff below. One is no more dishonest and misleading than the other, both being calculated to deceive. White butter is always the result of bad dairying, and generally can be overcome by putting more coloring into the cows. This natural and honest way of coloring butter will also very much improve the quality. Try it. What the farmers want is less trickery, more real practical knowledge, and more men willing to work with them to overcome the difficulties. We want some practical machinery to root up the unfair, unsatisfactory and unprofitable course pursued in the past, and establish a system which will raise the reputation of our butter and put into the pockets of our people the millions of dollars which are lost every year in bad butter.

To do this, united effort is required, and it will not only be necessary for the most enterprising to turn over a new leaf, but they should see that all their neighbors are doing their part as well. Don't lose sight of the fact that as long as bad butter is made by any, it will have an effect on the good, and all must suffer.

To overcome this difficulty I see no other way except by the creamery system, where all the cream is made into butter by practical hands. To make the creamery a success, the