

### Instruction in Butter-Making.

Recognizing the great necessity of, and the advantages that may arise from an improvement in our Ontario butter, the Hon. John Dryden, Ontario Minister of Agriculture, has suggested a plan and given instructions towards its being carried out, whereby it is hoped that much good will result. He has planned what may be called a travelling dairy department, a practical butter school or institute. Prof. H. H. Dean and an assistant will, towards the end of June, start out from the Ontario Agricultural College, Guelph, equipped with a set of tested, simple butter-making apparatus. They will go to such dairy sections as may desire their presence, meet in some suitable place the farmers, their wives and daughters, and by addresses and practical experiments give instruction in the best methods of handling milk, cream and butter. Those who are interested and desirous of having such a meeting or convention should at once communicate with President Mills or Prof. Dean at Guelph, as only a limited number of sections can be visited. This is of course an experiment, a venture, but we believe that the farmers will co-operate with the Hon. Mr. Dryden in this effort, by providing suitable quarters, plenty of cream for the experiment, a large crowd of interested learners, and not turn a cold shoulder upon the enterprise with the remark, "What can they teach us about butter-making?" Good butter-makers can meet and compare notes and make friendly suggestions, indifferent butter-makers can improve, and these who may recognize their ignorance can certainly pick up valuable information. If successful this year the scheme will be more fully developed next year. The success of it, to a great extent, will turn upon the co-operation of the farmers and their wives. Here is the opportunity for the women of our Farmers' Institutes.

### The Influence of Foods.

Interesting feeding experiments with three Jersey and two native cows were conducted during two years past at the Geneva, N. Y., Experiment Station. It was found that when fed hay alone the yield of milk, and butter as well, was always lowest. The addition of eight pounds of corn meal per day increased both the flow of milk and the yield of butter over that of hay alone, but the butter fat did not increase in proportion to the milk yield. The substitution of five pounds per day of linseed meal for six pounds of corn meal, making the grain ration two pounds of corn meal and five pounds linseed meal, gave a smaller yield of milk than when corn meal alone was fed. The yield of butter fat, nevertheless, was increased in every trial with linseed meal, and in the case of two cows with the same relative increase, would amount to more than 70 pounds of butter per year for each cow. Replacing the five pounds of linseed meal with eight pounds of wheat bran, the milk yield was rather less on the whole, but in one case more than when linseed meal was fed. The yield of butter was considerably diminished. The substitution of oats for linseed meal was followed by less milk and less butter, but of superior quality to that from linseed meal. With ensilage the chief difference noted was the more efficient recovery of the fat in butter-making, and the butter under cotton-seed meal was of much better quality than when linseed meal was fed. Some of these butter experiments were not tried a sufficient number of times to warrant definite conclusions. Of all grain foods tried, gluten meal gave the largest flow of milk, but the fat percentage was exceptionally low.

Dry feed (a waste product from the manufacture of starch and glucose from corn) ranked next to gluten meal. Corn meal followed these for producing flow of milk. Linseed meal gave the largest amount of butter, but the quality was not of the best, being too soft. Oats gave the best colored and hardest butter, but somewhat crumbly. One obvious conclusion that might be drawn from these results is that a combination of foods would be the most satisfactory butter ration, and experiments tried so proved. Summing up, Director Collier says: "We find that the character of the food *did largely influence both the yield of butter and the quality.*" This strongly verifies conclusions reached by other experimenters and the experience of many practical dairymen in feeding their herds. Much depends, however, on the individual cow. Some respond much more noticeably to generous feeding than others. That the butter yield can be increased by judicious feeding admits of no doubt; but there is a question as to the extent of the possible increase and the relative profits when the cost of food is taken into account. As far as the record of the Geneva experiments before us indicates, that most important consideration (the profit) does not appear to have been determined, and it is the profit that the dairyman is after. The good dairy cow should greatly enhance the value of what she consumes to her owner, and whether she will best do this on a "high," "medium" or "low" ration is a problem demanding the most accurate study.

### Dairy Observations.

The sudden death of Col. F. D. Curtis at Cuba, Allegany, N. Y., where he had gone to conduct a dairy school, removes one of the most gifted and steadfast friends of progressive agriculture, live stock breeding and dairying in America.

Germany is said to have about 700 co-operative creameries in operation.

It is not enough to have a large flow of milk, the quality must be there also when the farmer aims at winter butter-making and summer cheese-making.

By a judicious system of feeding, with practically the same herd, Hon. Zadock Pratt, of Greene Co., N. Y., in five years reduced the quality of milk required to make one pound of butter from 39.3 to 21, or about one-half what it did at first. The amount of butter increased in the same proportion.

Danish butter is sold in England at an average of a shilling per pound, while the average selling price of butter produced in Great Britain and Ireland is estimated by the Agricultural Gazette at under 11 pence.

Having thoroughly tested the Babcock method of determining the fat percentage of milk, Mr. Frank T. Shutt, Chief Chemist at the Central Experimental Farm, Ottawa, reports as follows: "We may safely conclude that when the Babcock test is made according to the instructions given with the machine, *strictly reliable results are obtained*, and that the percentage of fat so found, allowing for the greatest error possible under such circumstances, will be well within one quarter of one per cent. (.25) of the amount of fat actually in the milk.

### The Farm.

#### The Great Northwest.

ITEMS OF INTEREST ON PRINCE ALBERT AND RED DEER.

Those of our readers who are thinking of establishing a home in the Canadian Northwest for themselves or their boys will be interested in hearing something about two new districts which until recently have been to most people little more than geographical expressions, but which, owing to the construction of new railways, are now brought within easy reach. The first of these districts is that lying between the north and south branches of the Saskatchewan river, extending from Saskatoon to the Forks, and includes the Prince Albert settlement. The Qu'Appelle, Long Lake and Saskatchewan Ry., which was completed to Prince Albert last year, runs through this district, and round some of the stations, which are situated at every nine miles or thereabouts, small towns are being formed. Prince Albert of course has been an important point for several years, but now that it has at last got the long looked for railway facilities its prospects are greatly enhanced, and its business men are confident of a most prosperous future for their town, which is beautifully situated on the banks of the mighty Saskatchewan. This district comprises some forty townships, each of which contains thirty-six square miles, and is in general admirably adapted to the requirements of mixed farming, having good soil, good water and plenty of it, and bluffs of timber, affording an abundant supply of fuel to the settlers.

The second district referred to is in Alberta, and lies between Calgary and the Red Deer river, and has recently been opened up by the construction of the Calgary and Edmonton Railway which was completed to the Red Deer last fall. The district thus opened up is an exceptionally fine one. It is situated at the foot of the eastern slope of the Rocky Mountains, and is watered by numerous streams which rise in the mountains and flow northeasterly. There is abundance of fuel here, and the climate is much less severe than in Manitoba. The soil is rich and fertile, and as for the grasses, Alberta is famous the world over as the finest country out of doors for stock-raising purposes.

In both the above districts we understand that free homesteads of 160 acres can still be obtained within a few miles of the railways, the even numbered sections being all reserved for homesteading purposes by the Government. A number of land hunters are going into these districts this year. The odd numbered sections belong to the railway companies, and Messrs. Osler, Hammond & Nanton, of Winnipeg, who are the general agents for both roads, are doing all they can to get these districts settled up by a good class of men, and are always ready to give any assistance and advice to any one making inquiries concerning them, whether their intention is to take up a homestead or to purchase railway lands. We are trying to make arrangements to have articles descriptive of these new fields for settlement written by men residing on the spot, whose information and advice may be relied upon, as we think such articles will be useful to many of our readers, and instructive to all.

It is proposed to have a working dairy of 800 cows at the World's Fair in Chicago.

Chapter Act," is drainage Works. to \$200,000 taken a very much The mon security lands be eight do the debt lands in drain, by cipal co by partic

We no Drainage drainage under the great be whether

The l enough underst borne b to the and ar person and co and int the onl tain an among whose loss to out of

A st who at that sc other r

Like Coun yet no It see to dig to this in som often unjus

A bi follow throu mult may veyor parla asses levied it is d the c none

This of th prop parts coun peaks here pens alwa beca colle wou

At to h com som agal head evid out cou rais

Th they the son cas and hav sion

T sal wh in lan ma ma dra we wh fill fro ins co pe let

he be U a of ex fu th