

PRESENT-DAY AGRICULTURE.

Notwithstanding all that is being said today about increasing opportunities in farming, about farming as 'a profession,' and the farmer's 'noble occupation,' it remains true that very few farmers are prominent citizens, very few enter public life, and most of them are forced to be content with small returns for their labor." In these words Prof. J. B. Reynolds, of the O. A. C., Guelph, drew the attention of his audience to the status of present-day agriculture. Recently a number of questions were submitted to the students at the Ontario Agricultural College, questions relating chiefly to this: did they intend to follow actual farming after leaving the College and if so, why? If not, why not? One hundred of those who replied were born on the farm, 89 of them in Ontario.

Out of those students who expressed intentions of going back to the farm only four emphasized the profitability of farming, while the remainder based their reasons on attractions which are largely sentimental. Of those who find a farm life distasteful, 33 mention long hours as a reason; 24, said too much grind, no opportunity for amusement and recreation; 17, poor returns; 13, lack of capital; 10, lack of labor; 7, lack of conveniences, and 4, Sunday work. These reasons are largely economic, and, to the speaker, were well taken. Prof. Reynolds testified, from an experience of three years in managing a farm, that long hours are quite unnecessary. Cows should freshen in the fall and reduce to a minimum the summer chores, which should be done before, not after, six o'clock. Furthermore, if these objectionable features of farm life can be adjusted, "if they can be assured of a modest income, of freedom not from hard work but from slavery, of reasonable opportunity for cultivating their minds and their social instincts, all right and worthy demands upon life, these boys," said Prof. Reynolds, "would be satisfied to follow farming."

To demonstrate to his hearers that reasonable returns could be expected from a farm managed in a capable manner, the speaker assumed a farm capitalized at \$12,000 which included stock, equipment and buildings. The debit side of the farm accounts on such a holding should be somewhat as follows:

Wages, married man, per year.....	\$ 450.00
Threshing, silo filling, occasional labor.....	150.00
Feed, concentrates for milking cows.....	200.00
Taxes.....	50.00
Seed (clover, corn, garden seeds).....	65.00
General expenses (blacksmith, vet, etc.).....	75.00
Insurance.....	10.00
Depreciation on buildings and imple- ments \$5,600 at 5 per cent.....	280.00
Interest, \$12,000 at 5 per cent.....	720.00
Proprietor's labor income.....	1,000.00
Total	\$3,000.00

This constitutes a gross expenditure of \$30.00 per acre. Depreciation, interest and proprietor's labor income are three items that most farmers seldom consider or think worthy of a place in the debit column, but Prof. Reynolds proved to the dairymen that depreciation and interest were as sure as taxes, and that a capable farmer was worthy of the \$1,000 income if he realized \$30.00 per acre from the land. If he did not realize it perhaps he did not earn it. To balance the accounts the returns from a 100-acre farm were set down in the following manner:

Cream from 15 cows, \$80 each.....	\$1,200.00
Six cows at \$60.....	360.00
Calves.....	50.00
Apples.....	300.00
Poultry and eggs.....	150.00
Hogs, 30 at \$4 each and 30 at \$14.....	540.00
General produce (potatoes, grain, etc.).....	400.00
Total	\$3,000.00

The returns thus set forth for a 100-acre farm were based upon the revenue from a 63-acre farm for which Prof. Reynolds has complete accounts. In many cases had the amounts been in proportion to the smaller farm income, the total would have been larger.

All this might be accomplished without slavery, but the manager must be up to date and be a modern farmer. If he can live comfortably and realize \$30.00 per acre the life is what Prof. Reynolds understands by present-day agriculture.

FACTORY AND FARM WELL WATERS.

The home and factory water supply was discussed by Dr. W. T. Connell, of Queens College, Kingston. This is a matter of vital importance to the community, but one not considered by the majority of people in their routine of domestic or factory economies. Dr. Connell classified the different kinds of wells and demonstrated the probable source of contamination. Deep wells, of course, which draw their water from the rock and which do not allow of contamination from above, are the most satisfactory so far as

objectionable bacteria and other infection are concerned. Most soils are excellent filters and tend to purify the water as it percolates downwards through the layers of earth, but almost all the purification takes place in the first 6 to 10 inches of soil, so that if drainage water is carried below this it remains largely unaltered to seep down into the subsoil and enter any neighboring well that permits of seepage into it. Next to location great care should be exercised to see that soil about the well is kept clean, free from manure, slop water or other refuse. Most important of all would be the proper protection of the well. This is best effected by having the upper 6 feet of the well curbing cemented, the well mouth built up above surrounding area and covered with a cement platform. Further, a cement platform should surround the well for 4 to 6 feet, the fall being away from the mouth.

FIRST PRINCIPLES OF DAIRYING.

Dairymen listened attentively to the words and teaching of Prof. H. H. Dean, of the O. A. C., and on this occasion he discussed the first principles of dairying. The four factors that have to do with success in dairying are soil, feed, cows and the man. Of the first factor here set forth Prof. Dean favors clay soils, and said that the best farms and the best men were usually found on clay soil. Relative to feeding it appears that little progress is being made. While feeding stuffs are soaring higher and higher milk products have not had a proportionate increase in price. The speaker favored buying concentrates, especially those rich in protein, chief among which is cottonseed meal at the present time, but put his views into the following rhyme: Canada's Capital C's, Corn, Clover, Cows and Cheddar Cheese.

"There never was a time in the history of dairying," said Prof. Dean, "when so much good dairy stock was available for farmers as at present, yet it is difficult to sell good male animals at reasonable prices. These animals would do much to improve the milk-producing capacity of cows, but farmers are unwilling, or unable to invest in this class of stock. No man should be satisfied with cows that produce less than 6,000 pounds of milk, or 250 pounds of butter per cow yearly. Many dairy farmers now are adopting standards of 8,000 to 10,000 pounds of milk, and 300 to 400 pounds of milk-fat per cow in a year."

"Alter all, it is the man beside the cow, working for and with the cow, who largely determines success or failure on the dairy farm or in any line of dairy manufacture and commerce. The dairyman needs to be a reader, a thinker, a worker and above all CLEAN."

WHAT MILK IS, AND ITS CHARACTERISTICS.

During a time when all are practicing economy the address of Prof. R. Harcourt, Guelph, was opportune and instructive. In his discussion he revealed the fact that milk combined with bread or cereals provides nourishment for the body at a much smaller cost than does meat or other foods. It contains all of the four classes of nutrients—proteins, fats, carbohydrates and mineral matter—in more nearly the proper proportions to serve as a complete food than any other food material. For the adult it is too bulky, and can well be used with a food rich in carbohydrates to supply the greater amount of energy exacted by the grown person. Further more, at the prevailing prices it is economical.

Prof. Harcourt believes that skim-milk should enter more largely into human consumption. The average skim-milk contains nearly 10 per cent. of milk solids or nutritive ingredients, while whole milk contains about 13 to 14 per cent. The chief material removed from the milk in skimming is the fat. Thus, naturally, the skim-milk must be richer in the valuable protein materials than the whole milk. The value of the skim-milk is not generally appreciated. Taken alone it does not satisfy the sense of hunger, but it is a cheap source of very digestible proteins, and when taken with bread or used in cooking it forms a very nutritious addition to the diet. Two and one-half quarts, or five pounds, of skim-milk will furnish nearly the same amount of protein and will have about the same value for food as a pound of round steak.

ADDRESS NON-TECHNICAL.

The Director of Dairying for Ontario, Geo. A. Putnam, congratulated the dairymen upon the success they had achieved, and intimated that progress would be slower as the products improved and came near perfection. The sediment test and its results appealed to the Director, and in his address he spoke encouragingly of its future use in Ontario. The dairymen were urged to use their influence in their home communities to better conditions socially, and make it possible for the young men and women now growing up to be good citizens. Mr. Putnam encouraged medical inspection in schools and improved surroundings for the buildings. Rural communities might also make use of the travelling libraries issuing from the Department of Education, and

avail themselves of the opportunities often so envied in the urban dweller.

In one of the best addresses of the Convention Dr. C. C. James, Commissioner of Agriculture for Canada, plead for a greater production during the coming season. He claimed that in this tangible way Canadians who remain at home would show their greatest patriotism in this time of strife. It is intended that a convention of expert and successful agriculturists will soon be convened, and they will exert themselves in the direction of increasing production during 1915.

The Hon. James Duff, Minister of Agriculture, spoke optimistically to the dairymen at the Convention, and promised them the best efforts and assistance of the Government in their behalf.

With the exception of two directors the officers for 1915 remain the same as for the season now past. President, J. A. Anderson, Oxford Station; 1st Vice-President, J. N. Stone, Norham; 2nd Vice-President, R. G. Leggett, Newboro; 3rd Vice-President, Jos. McGrath, Mount Chesney; Treasurer, Jas. R. Anderson, Mountain View; Secretary, T. A. Thompson, Almonte. Executive Committee: Henry Glendinning, Manilla; G. A. Gillespie, Peterborough; W. H. Olmstead, Bearbrook; Jos. McGrath; Nelson Stone, Norham; R. G. Leggett and Neil Fraser, Vankleok Hill.

Happenings in Australia.

Though the plant breeder has executed much serviceable work in Australia, some of the best varieties of wheat have come from chance sources. This was so, for instance, with Dart's Imperial. The farmer after whom the wheat is named saw some heads standing out above the others in the field and he set them aside for sowing until he had enough seed to lay out a field. Another instance of the same kind has resulted in the fixing of a new variety, called Hard Federation. It is an off-shoot of the ordinary Federation, but has the advantage of being much harder and is a better flour producer. Three years ago a couple of heads of a lighter color were noticed showing up in the crop of Federation. The grain was secured and replanted, but it was noticed that they at length lost the light appearance and the head in the field now is as brown as the parent. Tests of the grain and the resultant flour have been most satisfactory. This season the new kind will be largely planted. The case goes to encourage the system of seed selection.

The breaking-up of the larger sheep estates in districts where the farming industry is extending is generally deplored as a loss of studs well-known for the enterprise of the founders. But figures show that the rate of wool per sheep is increasing. In 1904 the clip averaged 7 lbs. of wool per sheep and 2½ lbs. for lambs. In 1914, ten years later, the average had risen to 10 lbs. 4 ozs., and lambs 3 lbs. 3 ozs. Then there is the weight for carcass sheep, which has gone up from 50 to 60 lbs. a few years ago to 60 to 80 lbs. now. In 1893 the sixty million sheep in New South Wales returned 363 million pounds of wool in the grease, valued at £9,700,000. In 1903 the yield of 28,700,000 sheep was 227,004,000 lbs. of wool, valued at about £8,000,000. Last year 31,041,000 sheep gave 388,000,000 lbs. of wool, worth £13,700,000. It might be mentioned that the apparent discrepancy in the number of sheep of one year and another was the result of drought when heavy losses occurred.

An interesting colonizing scheme is afoot in Tasmania. The idea is to settle co-operatively fifty farmers from different parts of the world, including a fair proportion from America and Canada. The Government is to find the land in one block to permit the settlement under the leasehold system. The Government will subsidize the settlers in the work of road construction. Schemes of this sort ought to succeed, providing they are not made communistic. In Australia so far all the communistic settlements have failed miserably. So they always will while the existing sort of human nature is with us. A cause of dissatisfaction must always be that one suspects the other of not doing a fair day's work and of misusing the socialistic implements on the farm. But if each farmer runs his own holding independently of the other he can benefit immeasurably by the co-operation which will be possible with the worthy neighbor. Indeed co-operation is the one thing needful in rural settlement.

Whether the experiment is justified or not, the New South Wales State Government is going to make the attempt to farm wheat on a colossal scale in the hope of giving relief at a critical time and in order to aid the Motherland in time of trouble. It is now being arranged that the Government will put under crop at least 100,000 acres of wheat on its own account. If the super-