



# FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas.

The Recognized Exponent of Dairying in Canada

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

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## What Acreage Is Most Desirable for a Dairy Farm?

Modern Implements and Machinery May Make Larger Farms Popular

"MY idea was always a little farm well tilled," said a college student to me as we discussed the work that he intended to follow on leaving the O. A. C. "Now I don't believe I would take a small farm as a gift; not if I live on it. I believe that the large farm is the more profitable, and I have been brought around to this view by reading a book called 'Farm Management,' by Prof. G. F. Warren, of Cornell University.

"Prof. Warren presents the case for the large farm," he continued. "He opened my eyes. I began to look around me. One case struck me particularly. It was of a tenant farmer that I had known for some years. He had rented 60 to 100 acre farms and never seemed to get ahead. Then he rented 150 acres, he made some money, and is now on a farm of his own. The larger farm did it. I used to like to read 'Three Acres and Liberty,' 'Ten Acres Enough,' and similar books based on fancies but not facts. Prof. Warren bases his conclusions on general averages, and the average man stands a better chance on more than 100 acres than he does on less."

Evidently this young college man had been looking into the subject pretty thoroughly. Evidently, too, farmers as a whole had come to the same conclusion. The tendency of the Canadian farm is to add to its acre rather than be split up to accommodate an increasing population. In almost any section of rural Canada we can find farm houses with the windows boarded up and the buildings deserted, but the land still worked. It has been added to the estates of neighboring farmers. The principle underlying this tendency toward larger farms is that in this country land is comparatively cheap, while labor is scarce and wages are high. The object of the good farm manager is to use his own labor and that of his family and the hired man to the very best advantage. The rapid improvement in farm implements and the substitution of horse or tractor for manual labor, has made it possible for him to beat again his object on a comparatively large acreage.

### Warren's Investigations.

Prof. Warren's investigations, which are the most authoritative that we yet have, were conducted largely in New York State, and he deals very thoroughly with the relationship between the size of the farm and the labor income of its owner. For instance, in the counties of Tompkins, Livingston and Jefferson, in New York State, 1,388 farms were investigated. The following table shows the relation of size of farm to labor income:

Acreage	Number	Average	Average	Average
of farms.	per farm.	acres of crop.	acres of crop.	labor income.
20 or less	74	22	14	\$121
21 to 40	141	44	25	252
41 to 60	616	79	40	403
61 to 100	572	120	66	548
101 to 150	304	177	89	719
151 to 200	281	281	134	996
Over 200	281	281	134	996

F. E. ELLIS, B.S.A., Editor Farm and Dairy.

Since these investigations were conducted by Prof. Warren, many similar farm surveys have been made by the United States Department of Agriculture, and the results have always been approximately the same. When figures are available for the farm survey that is to be conducted in Ontario this year, it may be almost taken for granted that results here will be very similar. It would not be correct to assume, however, that the labor income of the manager and proprietor would continue to go up with every increase in the size of the farm. There is a limit to the number of acres that can be profitably worked in one year. Not long after my chat with the college friend alluded to, I visited a large dairy farm near Woodstock, Ont. The proprietor was working 225 acres which he owned, and an additional hundred was rented. The lease on the 100 had just expired, and it was not going to be renewed.

The proprietor informed me that he found there was more profit in 225 acres than in 325. His own land he could work with the help of himself, his family, and a couple of hired men. The additional acre required more help, more mechanical equipment, and so increased the length of haul with both crops and manure that the added revenue was not sufficient to pay the added expenses, including rent. And he was a good manager. Bonanza farms have almost always been a failure. Such as still exist are owned mostly by wealthy men who have other sources of income, and do not require to make a profit from their farms. From my observations among dairy farmers in Eastern Canada, I should say that the most profitable dairy farms vary from 150 to 200 acres in extent. Very few of these farms are devoted solely to dairying. Quite a large area is devoted to cash crops, and other stock, too, is handled when opportunity offers.

### Big Implements—Big Farms.

It was labor scarcity that lent stimulus to inventive ingenuity and prompted the manufacture of big, wide, working farm implements. It is these implements largely that explain the desirability of the larger farm. On the average dairy farm to-day the following expensive implements are almost a necessity: A mower, a side delivery rake, a tedder, a hay loader, a corn harvester, a binder, a grain drill, a manure spreader, and a milking machine. The most of these machines cost over \$100. If we counted the value of all the other tools, implements and machinery needed on a well equipped farm, the total investment in this one item alone would be at least \$2,000. Few small farms have half of the tools that are really needed. If the smaller farmer did manage to accumulate a first class equipment, his small acreage could not use them enough to pay for the investment. The more efficient and numerous machines become, the larger our farms must be. Referring to Prof. Warren's investigations, we find that on the farm of 30 acres or less, the investment in machinery per acre was \$5.95. As the farms increased in size the investment on machinery per acre decreased until the farmer with 151 to 200 acres had an investment of only \$3.34, and yet he was better equipped. From that point the investment per acre increased. That was in Tompkins county. In Livingston county, the investment per acre varied from \$7.05 on the 30-acre farm to \$3.13 on the farm of 200 acres or more.

The United States Census statistics also throw some light on the relation of farm acreage to farm machinery. Taking the United States as a whole the investment per acre on farms of 20 to 49 acres was \$2.08, and on farms of 500 to 999 acres \$1.31.

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### Why Food Will Be Scarce

FIGURES furnished by the United States Department of Agriculture, which is now as interested in promoting food production in the United States as is our own government here in Canada, place the number of men removed from productive pursuits by the war at 56,000,000. Of these, 6,000,000 men have already been killed; 4,500,000 are in prison camps; 15,000,000 have been wounded, of which number 1,500,000 have been permanently incapacitated. There are now 5,000,000 men in the hospitals. These under arms at the front total approximately 35,000,000 men.

Think of it! 56,000,000 of the able-bodied men of the world withdrawn from the ranks of producers. Half the population of the United States, counting every man, woman and child; almost eight times the population of Canada. When we consider the small crops of the last year, the small surplus of food that there is now in the world, and the great reduction in the number of producers, it is easy to understand the worldwide dread of famine. Conditions call for the greatest production of foodstuffs that is humanly possible.