

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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Agents for "The Farmer's Advocate and Home Journal,"
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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.
It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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acre ahead of the drill in a good seed bed, and there will be little cause for complaint about bad catches of clover. This overcome, rotation should be assured. We do not say which is the best rotation. This depends on the farm, the farmer and his particular method of farming. For the general farm the three-year or the four-year is good. The former consists of cereal, clover, hoed crop; the latter of cereal, clover, hay or pasture, hoed crop. They are simple, satisfactory, systematic, sensible, saving on plant food, and profitable in every way. Now is the time to start if a beginning has not already been made. Introduce system into farm cropping.

Deposits That Pay Big Interest.

A few days ago it was our privilege to drive for over forty miles through one of the most prosperous farming sections of Old Ontario, and in that drive we saw more deposits which will surely turn in big interest to farm owners than in any one drive previously taken. These deposits were not composed of cash in chartered banks or loan and savings societies, but constituted big heaps, little heaps, and thickly-spread coverings of fresh farmyard manure. Acres and acres of fall-plowed and sod land have received a "heavy coat." There is no soil-mining on these farms. At two places at which we called we found large numbers of live stock—big cattle, finished and fat, little cattle, full and well fed, fat pigs and nursing litters, little lambs and big sheep, and massive work horses, brood mares and growing colts. One farm of 208 acres was carrying seventeen horses, one hundred cattle (of which sixty were feeding steers), forty-nine hogs and nearly forty sheep. The other farm of 240 acres had nearly eighty cattle and some had recently been turned away, a large number of sheep and pigs and the necessary horses. Is it any wonder that there was manure in the

fields? These farmers are not farming for a year or for five years. They are in the business to stay, and they fully realize that the best returns over a period of years come where the investment is made in farm stock and equipment, and the deposit in the fields is what produces the bumper yields year after year, which feed the stock to turn in greatest profit to the owner, and at the same time build up the fertility of his land until he is assured of good crops in any season. Grains and all kinds of feed are high-priced this season, yet they have gone into live stock, and the farm has not been robbed. If the owners get market price for their feed by selling it as finished live stock this season they will be doing fairly well—better than the man who sells his feed and has no fertilizing deposit for his fields. The men whose well-drained, naturally fertile fields are covered with a heavy coat of barnyard manure from grain-fed stock have little cause for anxiety about crops. Crops cannot help but grow on such soil. The soil is well fed, the crops all well fed, the stock is well fed, and so it goes. Returns are such that we venture to say that no small proportion of the \$100,000,000 which our authorities tell us Ontario farmers have in chartered banks at the present time is made up of surplus from this kind of stock farms. And yet the returns from this land depend upon the deposit of manure now in the fields, which in turn depends upon live stock kept. Crops, feed, net returns—all depend upon live stock and the farmyard manure which yields big interest.

Nature's Diary.

A. B. Klugh, M.A.

During the summer of 1914 the U. S. Biological Survey conducted a census which is of much interest to all lovers of wild life. Early in the year a circular was sent out to the 250 voluntary observers of the Survey, in which the following explanatory statements are made: "This bureau desires to obtain a series of bird censuses, beginning with this summer, taken during the breeding season, with a view to ascertaining how many pairs of each species breed within definite areas. Such censuses will serve for determining whether the present laws are effective, and whether game or insectivorous birds are increasing or diminishing in numbers. The area under observation should not be less than 40 acres—a quarter of a mile square—nor more than 80 acres, and should include the farm buildings, with the usual shade trees, orchards, etc., as well as fields of plowed land and of pasture or meadow. What is wanted is a census of the pairs of birds actually nesting within the area. Birds that visit the area for feeding purposes should not be counted, no matter how close their nests are to the boundary lines. The height of the breeding season should be chosen for this work, and starting at daylight the observer should zigzag back and forth across the area, counting every male. Early in the morning at that season every male should be in full song and easily counted, and every male can safely be taken as representing a breeding pair. The census of one day should be checked and revised by several days of further work, in order to insure that each bird is actually nesting within the area, and to make certain that no species has been overlooked. The final results of the census should be sent to this bureau about June 30, and should be accompanied by a statement of the exact boundaries of the selected area, defined so explicitly that it will be possible to have the census repeated in after years. The name of the present owner of the land should be given, together with a careful description of its character, whether dry upland or moist bottom land, the number of acres in each of the principal crops, or in permanent meadow, pasture, orchard, swamp, roads, etc., the kind of fencing used, and whether there is much or little bush along fences, roads or streams, or in the permanent pasture.

If there is an isolated piece of woodland comprising 10 to 20 acres near we should like to have a separate census of it, and still a third census desired is that of some definite area forming part of a much larger tract of timber.

The above are three kinds of censuses desired, and it is hoped that you will volunteer to take one or more of them this season."

The results of this preliminary census show that the average number of breeding birds on farm land in the North-eastern States is one pair per acre. The census also shows that, under strictly farm conditions it is possible to very largely increase the number of breeding birds. One piece of farm land of 49 acres had 137 pairs, or 3 pairs to the acre, another farm of 40 acres has 157 pairs, or 4 pairs to the acre. In this latter case the owner had specially protected and encouraged the birds, thus proving that the number of breeding birds can be increased in this manner.

Another result of the census is the information given as to the relative abundance of the various species. The most abundant species on the areas covered by this census is the Robin, the House Sparrow coming second. For every 100 Robins reported there were 49 Catbirds, 37 Brown Thrashers, 28 House Wrens, 27 Kingbirds, and 26 Bluebirds.

In this census no reports are apparently given from Canada, though on the map appended an observation station is marked in the Dominion, apparently at, or near Winnipeg. It would be of great interest if we could conduct a census on the same lines in Canada, and I would suggest that readers of "The Farmer's Advocate" who are interested in bird-life undertake a census on forty or eighty acres of their farms, following the directions given above. If there is any point upon which more information is desired in regard to the making of such a census I shall be very glad to answer any queries. I should suggest the second week in June as the best time for making a census in the southern portions of Canada, and the third week in June in the more northerly parts. The results of the census should be sent in to me during the first week of July. Of the three kinds of censuses mentioned above the first, of the birds breeding on farm land, is obviously the most important, and also the easiest to conduct, not only from the open character of the country, but because the birds found on such land are nearly all common and well-known species.

The N. S. Biological Survey will conduct another census during 1915, and it will be interesting to compare our results with theirs.

Schools for the Home.

The United States Commissioner of Education, P. P. Claxton, is urging the sensible view that the home is the most important institution in the land, and, therefore, arts and sciences pertaining to home-making are of first importance in the country's schemes of education. Naturally the demands of industry and agriculture upon the teaching provided in the schools are making themselves felt as never before in Canada and in the American Republic, but the home and family are of prior concern, because in the home the activities of the nation find their roots and take on their character. Beyond any question probably the most serious social troubles in Canadian and American life grow out of defective home conditions and the want of proper home training. Thinking people are gradually coming to realize the need for a thorough recasting of plans, purposes and methods in the work of the public schools, if they are to make the rising generation really intelligent about the life we live and the work we do. The old and excessively classical and bookish forms of education are inevitably passing, and while it is essential that the application of principles underlying the industries of the farm and work-shop receive a conspicuous place in order to material success, the making of character is after all the real foundation. In recognition of this growing need in education, Prof. Benj. R. Andrews, of the Teachers College of Columbia University, has been for a couple of years engaged in an enquiry into the status of education for the home in school and college by direction of Commissioner Claxton, the results of which will be an important contribution to the subject.

Far from discouraging breeders of pure-bred stock, cutting off the supply from other lands should prove an incentive to make bold strides to produce here what cannot be imported for breeding purposes. It is the stockman's opportunity.

THE HORSE.

Out Through the Feed Hole.

Editor "The Farmer's Advocate":

More than thirty years ago I tried strapping a piece of chain to a mare's hind leg for kicking in the stall, and was glad enough to get into the manger and out through the feed hole of the box stall. The way that chain flew for about a minute was a surprise to me, and she did not stop kicking until she got rid of the chain. I simply give this as a word of caution.

Durham Co., Ont.

W. A. BEEBE.