

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

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JOHN WELD, MANAGER.

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 or 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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and visiting families, regardless of their church relationships; a man who knows farmers by the horses they drive, understands something about farming, and keeps some creditable stock himself. If so, then he would conclude to have a stake in that neighborhood. As a matter of fact, remarks Mr. Wallace, the condition of the church is a fair indication of the character of the people of a community. If they insist on giving the pastor only seven or eight hundred a year, piecing it out with a sack of corn or jag of hay, with an occasional pat of butter, we should conclude they were a rather small-souled sort. But if they paid him a salary on which he could live comfortably and educate his children, then we would conclude we had struck a lot of broad-minded, large-hearted, wide-awake farmers, who thought in dollars, instead of nickels, who dealt with the educational and spiritual side of their lives as they did with the material and business side, we would feel that this was a good community in which to own a farm. The country church is an indication of the character of the locality, and the spirit of the preacher has something to do with the spirit of the people among whom he lives and to whom he ministers. This accords entirely with what has been repeatedly urged in "The Farmer's Advocate," that the country minister who more fully identifies himself with the life of his people and keeps in touch with movements for the betterment of farming and farm life, will greatly strengthen his position as an efficient promoter of their highest interests.

How About Old Pastures?

Several queries have come to this office in the last two months asking how best to have old pastures seeded anew with more profitable grasses for permanent pasture. In answering these, the thought has sometimes occurred whether it is always wise to do this. Can any grasses better than native ones be found? Does a pasture get run out with age, so that its yield of nutriment per season is lessened? Should affirmative answer be given to all or any one of these questions. On this subject we should much like to get the opinions of readers experienced in stock-grazing.

Saving the Soil.

The Illinois Bankers' Association have become exercised over the decadence of the truly wonderful prairie soil in that great State, and have rallied to their aid in a campaign of education the services of Dr. Cyril G. Hopkins, Chief in the subjects of Soils and Soil Management at the State University. The aim of the movement is not only to preserve, but to increase soil productivity. To this end, group meetings were held during the past year, concluding with one at which an address was given, entitled, "Saving the Soil," or practical methods for permanent productiveness, subsequently revised for publication.

With war giving way to peace, and pestilence to science, Dr. Hopkins forecasts an enormous increase in the population of the United States, (which may also be said of Canada), and these coming peoples will have to be fed. Agriculture is the basic support of industry and prosperity, and soil fertility is its absolute foundation. Hereofore the plan has been to work the land for all there was in it, without attempting to make adequate return; consequently, vast areas, once cultivated with profit, are abandoned, and in the wheat and corn belts there is yet going on the most rapid soil depletion ever witnessed. A hundred-bushel crop of corn takes out of the soil 150 pounds of nitrogen, 23 pounds of phosphorus, and 73 pounds of potassium. If these materials are not returned to the soil, there can be only one end of continuous cropping. There are now a hundred applicants for every well-watered farm thrown open to settlement. The ten-year average wheat yield in the States is but 14 bushels per acre, while Germany's average is 28 bushels; England's 32, and Denmark's over 40 bushels. Millions have been appropriated to exploit the few remaining American virgin acres on which, by irrigation, it is possible to grow crops; but Illinois' share of the Federal appropriations for a single year in time of peace for the War and Navy Department would maintain for three hundred years the total appropriation for the investigation of Illinois soils. Roman agriculture was permitted to decline till a bushel of seed brought only four in the harvest; then followed a thousand years of Dark Ages, till the discovery of the new world brought fresh supplies of food for the relief of overcrowded Western Europe. America ought to take warning.

Dr. Hopkins plainly tells the bankers that they should encourage the investment of money in the restoration of Illinois soils, and discourage its wasteful and suicidal investments in wild-cat Western projects.

Dr. Hopkins goes on to show that, by summer-fallowing, rotation, better seed and methods that might be called "improved," larger crops may be grown for a time, but still it is at the expense of the soil. His teaching is that, for the normal soils of the Illinois corn and wheat belts, three substances must be applied: phosphorus, limestone, and nitrogenous organic matter, which are best supplied, he says, in the form of fine-ground natural rock phosphate, ground natural limestone and clover or other legume crops which have the power to secure nitrogen from the inexhaustible supply in the air, and which must be returned to the soil either directly or in farm manure. In another address, he puts it in this way: Phosphorous can be purchased in grain or in other concentrated food stuffs, to be fed with clover or alfalfa hay, and then be applied in the form of farm manure; or it may be applied as bone meal and from the phosphate mines of the Southern States. As a rule, the most profitable system known, until recent years, has been one in which the farmer purchased much grain, enriched his farm at the expense of others, and sold from his own only live-stock products; but bread is the staff of life, and many must sell grain, so that the responsibility of maintaining the fertility of the grain farm is just as great as for the live-stock farm. A system of farming that may be temporarily profitable for the individual may not be permanently profitable for him or the State, and it is the duty of the State to insure the maintenance of general prosperity.

After discussing the obstacles to be overcome, including the short-sighted policy of soil robbing and mistaken teachings on the subject, Dr. Hopkins falls back on experience. Having put his

views to the proof, he asks two pertinent questions:

First—Why should the average corn yield of the United States be only twenty-five bushels per acre, and of Illinois but 35, when the yield upon the farm of the University of Illinois, on normal soil, under practical, profitable and permanent scientific systems, is 87 bushels in grain-farming, and 90 bushels per acre in live-stock-farming, as a six-year average?

Second—Why is the ten-year average yield of wheat in the United States only 14 bushels, and the Illinois average only 17 bushels, when the average yield of the last six years on the University experiment field in Marion County is 27 bushels per acre, under permanent profitable systems of soil improvement?

It has been claimed that Dr. Hopkins lays undue stress upon the dangers of the exhaustion of phosphorus, but he does not put too strongly the function of humus in improving the tilth and texture of the soil and its absorbing and water-holding power, whereby other elements are dissolved and made available for the growing crop.

The Boy Misunderstood.

Editor "The Farmer's Advocate":

I notice, in your issue of May 11th, an editorial entitled "Under the Crust." I have read it three times, which is unusual for me, as I have access to practically every magazine, trade paper and farm paper published in America, and naturally "skim" through them. It is one of the finest things I've read, and the man who wrote it hit the mark through his intimate knowledge of human nature and existing conditions.

I wish the writer had laid down as well on the fact that such "mental dullness" is largely responsible for misunderstanding the boy on the farm, who, being human and having a desire to "grow," seeks to "ginger up" things, and so gets himself disliked. Can you blame him for leaving the farm, when half his suggestions for modernizing the old place and making it pay dividends, meet with heart-breaking ridicule?

The situation in many localities is pathetic, for it does seem hard that the old gray-haired head of the home should be left alone to cope with a task to which he is no longer equal—but is it necessary? Meet the boy half way, and see what happens. He will make mistakes, but the very fact that a spirit of co-operation obtains between father and son will frequently transform not only their lives, but those of the whole family. This, without taking into account the greater material success which is certain to result.

The farmer's boy who comes to the big city with just his two hands is at a tremendous disadvantage. I have in mind a section of Boston where for whole blocks you will find the hall bedrooms of the lodging-houses filled with these well-meaning but disillusionized young men. Believe me, they lead a life as bare of real joy as the one they left. Yet, they have set their shoulder to the wheel, and are too proud to go back. I'm one of them, and I know.

There are 125,000 young Canadians, some of them the cream of the localities from which they came, right here in New England. Many of them have won success, but there are thousands whose hearts yearn for the homeland, its pure air and sunshine, its simple food, its wholesome mothers and daughters.

How much longer will the farmers of Canada continue to send their sons to enrich a foreign nation with the best years of their lives? It is all so foolish—so unnecessary. Give the boy a chance at home.

F. NELSON CARLE.

Boston, Massachusetts.

"January 1st, 1904, I bought twenty-one head of grade Shropshire sheep, paying \$66.75 for them, and three pure-bred Shropshires for \$53.50. I have charged against my flock \$1.00 for each year's keep, medicine, shearing, machinery and incidentals. January 1st, 1910, my sheep invoiced 95 head, with a clear profit for the six years of \$901. I question whether a dollar would buy enough feed to maintain a sheep for one year, but when the manure and the destruction of weeds and brush are placed to her credit, I think the balance would be in her favor."—[A. W. Cornelius, Franklin Co., Kansas.