

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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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, dairy-
men, gardeners, stockmen and home-makers, of any publication
in Canada.

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New Grains, Roots or Vegetables not generally known,
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at all. It pays in dollars to take an agricultural-college course. It qualifies one to carve out a higher type of success.

But, far more desirable than money-making, is the interest it gives one in his occupation. Plowing and cultivating take on a new interest to him who has learned why he plows, and what he accomplishes by stirring the soil. The field becomes a laboratory, wherein are performed wondrous physical, chemical and bacteriological processes which the tiller of the soil assists and promotes. The live stock are invested with a new interest. There is so much to learn and study in them, and so much room for improvement. The scientific and commercial problems of the farm acquire a new and absorbing interest. Fuller knowledge and deeper insight lend fresh attraction to life. The agricultural college ex-student may live quite a full life within the bounds of his own farm. This is not to mention the social advantages that result from the culture and polishing received, nor the superior equipment for public responsibility and public life.

To any sensible farm lad in Canada, past the age of 18 years, starting out in life intending to make a living from the soil, our advice is to spend the first two years taking a course in one of the four well-equipped and splendidly-manned agricultural colleges, at Truro, N. S.; Ste. Anne, Que.; Guelph, Ont., and Winnipeg, Man., even though he has to pay his own way through. By industry, he can do this with the proceeds of two summers' work, including one five-months' summer vacation between terms. At 40 years of age he will probably have a more valuable property than had he not taken such a course, while his life will be assuredly broader, more useful, more creditable, and altogether better worth while.

Received premium, "Baron's Pride," in good shape. Am much pleased with picture. I am well pleased with "The Farmer's Advocate." It is a welcome weekly visitor in our home.

Simcoe Co., Ont.

A. H. Mc. COLEMAN.

ELECTRICITY IN AGRICULTURE.

Directly and indirectly, electricity bids fair to play a large part in twentieth-century agriculture. In transportation, its recognized sphere constantly widens. Trolley lines, ramifying the countryside, have in a measure suburbanized many farms, with all that this means in economy, convenience, comfort and social privilege. Electrification of the great trunk railway systems is anticipated. The tapping of the radial electric railway lines for abstraction of power to run stationary farm machinery is said to be an accomplished fact in Wisconsin, Illinois and Indiana, and seems likely to become common elsewhere, while electric motor machinery for farm use is already within the realm of speculation, at least. In transportation, at any rate, and in the driving of stationary machinery, whether in tillage operations or not, the great, silent, smokeless, transmissible energy is destined to work revolutionary changes.

As a means of promoting plant-growth, electricity has been remarked occasionally as one of the agricultural marvels of the age, its effects in this direction being scarcely less phenomenal than in the treatment of bodily disease, for, despite the humbug of the charlatan, electricity has been applied to excellent purpose in various human ailments. Since Lemstrom, the Swedish scientist, noticed the favorable effect of electricity on plant-growth in his greenhouse, where he was conducting experiments to elucidate the aurora borealis, considerable attention has been devoted to this line of endeavor, with some notable results. In "The Farmer's Advocate" of August 13th was a striking article summarizing results obtained in England in some recent experiments under the supervision of Sir Oliver Lodge, in which it was found that the leakage of electricity sizzling off from a system of high-tension wires strung over a field resulted in an increase of thirty to forty per cent. in the yield of wheat, attributed to better stooling. The milling qualities of the wheat were also improved. Strawberries ripened earlier and gave an increased crop. Mangels yielded 25 per cent. more. Favorable results were obtained with raspberries and tomatoes. It is not stated whether the electrification is profitable or not, but we are told that the cost is not high, because, while a high potential of energy is required, the daily loss of current is small. Neither is any mention made by Sir Oliver of the effects on soil fertility of thus stimulating growth. Certain it is that electricity is not plant food, and if crop yields are increased by the treatment, it must be by a more complete abstraction of available fertility from the soil. Thus, the increase in yield resulting from electrification is not clear gain to the farmer, in the sense in which an increase resulting from the application of fertilizer would be. However, the experiments raise many interesting questions which the scientist may presently answer. In any case, whether of practical value or not, these experiments with electricity are noteworthy and interesting.

And now comes the announcement that the water-power-generated electricity at Niagara Falls, Ont., is to be used in a huge lime-nitrogen plant to manufacture this new fertilizer, by combining the nitrogen-gas of the atmosphere with calcium carbide, in an electric furnace. Other plants are to be established by the same company throughout America, while in Europe immense lime-nitrogen plants are in operation. This new industry promises to stave off indefinitely that dread period which scientific alarmists have been predicting, when the population of the earth should starve, by reason of inability of the soil to produce sufficient food, owing to the exhaustion of the available nitrogen supply. With this new means of obtaining nitrogen from the inexhaustible supply in the air, in quantities limited only by the electric energy available for its fixation, the spectre of world-wide starvation need not worry any of us or our children's children.

A REVIEW OF THE SEASON IN THE WEST. MODIFIED CROP ESTIMATES.

Immediately on the opening up of spring, conditions for growth began to appear quite favorable, and continued so all over the Western country until May, when about two weeks of cold, dry weather set in just when it should have been warm and moist. This was the first departure from ideal conditions; since then we have had several, although a Western farmer will not complain of it. The crop gave very good promise of heavy yields up till the last week in July—that is, taking the country as a whole—but in several districts drought was felt, and, of course, the visitations of hail were not wholly absent. July was a warm month, and brought the grain along very fast; some heavy showers prevented it from drying out prematurely; in fact, the rain which fell during the Winnipeg and Brandon Exhibition weeks was estimated to have done some \$20,000,000 worth of good to the country—that is, by those who care to measure nature's bounties in dollars and cents. However, high temperatures continued, and are still with us (Aug. 11th), with the result that the grain has ripened much too fast, and has very much decreased the prospects of the total yield making a new high record.

For a time, the interests who are most anxious to see a heavy crop and liberal buying on the part of farmers, insisted that our total yield of wheat would be 120,000,000 bushels—nearly one-third more than the bumper crop of 1906. At present, the hopes of this class seem destined to be disappointed, and the more sane observers are estimating the crop at something below a ten-year average, with a total about equal to 1906. Of course, definite knowledge of the exact yield of the crop will not be available for about a year, although, by November, estimates will be based very largely upon actual yields.

THE EFFECTS OF GRAIN CROPPING WITH- OUT MANURE.

Grain crops on the older-cultivated lands show the need of more humus in the soil. For a long time our farmers insisted that the land was too rich to manure, but of late years crops have shown an increasing demand for more food, and the soil has not been as able to withstand drouth as it was years ago, or as the new land is now, where the decaying sod helps to retain moisture. Clover is being more largely grown every year, as are also the grasses, and this will tend to retain our older soils in their full strength.

Of the three Provinces, Alberta seems to have fared best. She has had plenty of rain, with the exception of her eastern part, and her grain crops have ripened evenly, and not too fast. Harvest began in the winter-wheat districts about as early as it does in Ontario, and all other grains are about ready for the binder. In Manitoba, the spring-wheat harvest began about Aug. 10th, but will not be general till the 15th. In Saskatchewan, cutting is a few days later, particularly on the newer lands.

The hay crop in all the Western Provinces has been somewhat larger than usual, and the weather has been quite favorable for taking it off. In the far West nearly every rancher now puts up enough prairie hay to carry his stock over the roughest weather in winter, and this year the task was soon accomplished. In the grain-growing section very many farmers use oat-sheaves instead of hay, although, as we said before, tame grasses are becoming quite general.

The oat and barley crops are not very heavy, for the same reason as the wheat crop is light, namely, the hot, dry winds. Barley is coming to be of more importance every year. It is used quite largely for a nurse-crop for grass, and upon lands where weeds are being found. There is quite a trade developing in the malt industry out here, which makes a steady market for the grain, at good prices.

It is estimated that employment will be found for all the Eastern harvest hands that can be secured.

UNSTOCKING THE RANGE.

Ranchers are now in the rush of marketing their stock. The movement of cattle from the ranches began earlier this year than usual, and has been quite steady, but increasing in volume, since the middle of June. It has been a good year for beef-making. The grass has been plentiful, and the winter being mild, the cattle went right on and made flesh. But the ranching business, as it was conducted in past years, is fast disappearing. Many of the old-time ranchers are cleaning up now, and the stock-yards at Winnipeg are often full of mixed lots of cattle. Land is becoming too high in price to allow a steer the range of fifteen or twenty acres; more money can be made off it, even with an occasional crop failure, than is made by the ranchers. The cattle business, however, is not diminishing, but rather intensifying. Stock are run in smaller lots and fed on better feed, so that they mature more quickly and finish more evenly. This is but a natural development in the stock business. Interest in other classes of stock is not very keen. A lot of our farmers should raise hogs, and a few