

INTENSIVE FARMING.

It is certain that few farmers farm as well as they think they should, or as well as they know how. This may be due, in many cases, to circumstances they cannot readily avoid or control, but in most instances they will admit that with more attention to the details of their work, with proper drainage of the land, a judicious rotation of crops, more thorough cultivation, more attention to making, saving and applying manure, more care in the selection and cleaning of seed, and more regular growing of clover, considerably higher average yields would be ensured, and would probably pay well for the added labor and expense involved. In passing through the country and noticing the difference in the appearance and promise of crops on adjoining farms, evidently equal in quality of soil, one cannot but be impressed with the thought that one has been better farmed than the other, and that the better management will be liberally rewarded in the harvest field. Mother earth will stand a good deal of abuse, and will give back all the returns of profit that can be reasonably expected from the treatment she receives, and generally will respond generously to generous treatment, but to use a vulgar saying, "One cannot expect blood from a turnip," and land over-cropped and starved by lack of fertilizing elements returned cannot reasonably be expected to yield paying crops. Yet the recuperative properties of average soil are remarkable and exceedingly interesting. Farms are known to the writer in one of the best agricultural districts in Ontario, and less than thirty miles from Toronto, which forty years ago were considered "run out," and beyond hope of recovery because of bad management, and were sold for less than one-half the value of adjoining farms, but by better management, with a little more expenditure of labor and better cultivation, together with the growing of clover and feeding of cattle and other stock, were in a few years restored to fertility, and are regularly producing as bountiful crops as in the early years after being cleared of the forest when the soil was in its virgin condition.

Some people are unduly concerned about the future of the race of men, when all the farming land of the world has been taken up, and no place will be left for the ever-increasing population, but if they would consider that by more intensive farming the land could be made to produce from two to ten times as much in money value per acre yearly as is now received from the same area, there need be little anxiety about the future. Smaller farms, if need be, better tilled and more intelligently managed, will, as a rule, be found better for all, especially if cottages, at a moderate rental, are provided for married help, whose families might find employment on the land and in farm homes. Under such conditions farmers and their wives would not need to work as many are doing, much harder than their strength warrants or their financial circumstances demand, while their profits might readily be increased.

THE FARMER AND THE SCHOOLS.

Every autumn is disclosing the fact that the best results come to the farmer who combines in himself trained intelligence and industry. Theory is worthless without intelligent practice, while industry that is not guided by sound reason is but so much energy wastefully expended. The farmer who does aim to strike the happy medium between thought and action is very likely to reap more disappointments than wheat or barley. As the virgin fertility of our soil is exhausted, and as our original forests are stripped away, as new conditions evolve involving an ever-increasing multitude of problems connected with farm life, it becomes every day more self-evident that the farmer who is to take a successful part in the life of his community must be on the move upward, or be prepared to take an ever less important part in a losing battle.

Now, no better ally to the farm should be found than the school. Of course, the manual operations of the farm can be learned only by experience. But while this is the case, there is a deal that may be taught by way of encouraging the farm boy to observe conditions in his home and farm life. The life history of some insects and pests may be readily studied. The conditions under which certain blights occur may be noted. In this study our Agricultural Experiment Stations will be very willing to lend teacher and pupil, and parent alike, timely and helpful encouragement.

Perhaps the most important lesson the school can impress upon the minds of the pupils is the fact that nothing in connection with farm operations merely happens, or that one farmer succeeds and another fails because of mere luck. The teacher who has trained his pupil to do his own thinking and to make reasonably correct observations, or to conduct an experiment intelligently, has done a great deal in the way of preparing his student for a happy and successful life. As this is the month in which many of our public-school teachers are hired, it is all-important that the farmers bestir themselves to secure teachers who are educators rather than time-servers, and who aim to prepare their little charges for the graver problems that come with the advancing years, rather than for a certain expertness in passing examinations. O. C. Wentworth Co., Ont.

The area planted to corn in the United States this year is given as 100,976,000 acres, which is 11 per cent., or 1,065,000 acres more than last year.

SEED SELECTION.

The business farmer is looking out these days for next year's seed. If he has decided to sow his own seed he is making preparations for storing it where he can get at it readily for cleaning or sorting purposes. Not a few have found it advisable to label each lot of seed in order that no confusion may result when the hurry of spring seeding is on. There are plenty of instances where the reward for carefully-conducted experiments has been thrown away just because precautions have not been taken to label the product of expensive seed. It should be borne in mind that only the seed of fully-matured and carefully-harvested crops should be sown. The best seed is none too good for reproductive purposes. If, however, the farmer has decided to change his seed, it will pay him to secure his next year's sowing from a stand of grain grown amid conditions approximating those of his own soil. Further, he cannot be too careful to secure seed that is free from weeds, and to deal only with neighbors whose care and honesty are to be depended upon. It must be remembered that while a change of seed is desirable in some instances, that an agriculturalist may easily make a costly blunder by dispensing with a profitable seed for one of untried value. Seed is not likely to run out if care is exercised in sowing only the best upon a good seed-bed.

One cannot help thinking that this applies to our early potatoes. In the rush to get the early potatoes to market, all the larger tubers are sold, while the smaller and the immature ones are gathered for seed. The natural result is that the product gradually deteriorates. A better plan is to allow a portion sufficient for seed to come to full maturity. Let these be carefully harvested and placed away in a cool, dark, properly-ventilated storage, and from these the most vigorous growers should be used as seed. In this way the time for "running out" will be indefinitely postponed. O. C.

MR. HUNTER'S FARMHOUSE.

The photograph of a farmhouse on this page represents the home of Mr. John Hunter, Sr., a prosperous farmer of Halton County, Ontario, owner of 300 acres of excellent land, situated near Norval Station, on the Grand Trunk Railway, between Toronto and Guelph. Mr. Hunter is principally interested in dairy farming, keeping from 25 to 35 cows the year 'round, mostly grade Jerseys, and ships sweet cream to the City Dairy Co., Toronto.



Farm Residence of Mr. John Hunter, Sr., Norval, Halton Co., Ont.

ALCOHOL VS. GASOLINE FOR HEAT, LIGHT AND POWER.

The Agricultural Engineering Section of the Experiment Station of Iowa State Agricultural College, Ames, Iowa, has conducted experiments to learn something of the value of alcohol for lamps and gas engines. The law which permitted the withdrawal from bond, tax free, of domestic alcohol, when denatured or rendered unfit for a beverage by the addition of certain materials repugnant to taste and smell, and which came into force January 1st, 1907, excited much interest, and many inquiries were received at the College as to the value of alcohol for lighting, heating and power. We, in Canada, while not affected by United States law, have shared in the interest on account of the predicted possibilities of cheap light and power, and of a profitable market for low-grade farm products which might be used in the manufacture of alcohol. It was in response to inquiries received that the experiments referred to were conducted. In these experiments alcohol and gasoline were used for the purpose of making a comparison between (1) the heat value of the fuels, (2) their economy in the production of light, (3) their economy in the production of power, and (4) the relative safety of alcohol and gasoline for general use.

We regret that while for beverage purposes alcohol still maintains a bad pre-eminence, the result of these experiments show that gasoline is much superior as a

fuel and as a light producer. The amount of combustible material in one gallon of alcohol is about two-thirds of that contained in one gallon of gasoline. While analysis is not to be relied on in estimating the value of substances consumed either by living creatures or in engines, in this case it represents very accurately the comparative worth as determined by experiments with lamps and gas engines. It is pointed out, however, that as need rises engines may be specially constructed for fuel alcohol, in which it can be more economically used than by any at present made.

In the summary the case against alcohol is stated as follows:—

Alcohol of 94% purity must be sold for thirteen to seventeen cents per gallon to compete with gasoline for lighting, heating or power purposes at twenty cents per gallon.

On the other hand, these advantages are claimed for it:—

- (1) It is cleaner. It was found impossible to soot the mantels of any of the lamps with alcohol.
- (2) It is less offensive to the sense of smell.
- (3) There is much less danger from fire than when using gasoline, owing to the fact that alcohol does not vaporize as readily as gasoline, and its flame may be extinguished with water.

THE DAIRY.

AMONG THE CHEESERIES.

July 28th and 29th were spent by the writer among some of the cheese factories in the neighborhood of Woodstock, Ont. At the kind invitation of Mr. Frank Hens, Chief Instructor for Western Ontario, we took two holidays, visiting the "boys" in some of the cheese manufacturing establishments in the far-famed County of Oxford. We were accompanied by Mr. R. J. Guthrie ("Moir"), agricultural editor of the Sydney Mail, Australia, who was very much interested in the dairy farms and factories. Mr. Guthrie is an expert photographer, and we may expect to see a number of typical Canadian scenes reproduced in the Mail. There is one we should like very much to see. A patron is hauling a load of cheese to a near-by railway station; the tire of his wagon has come off on the hot, dusty road; a friendly milk-hauler is assisting him to put the tire on again. Our Australian friend, as soon as he saw it, exclaimed, "I must have a 'snap' at that with the camera." Polite, always, the photographer asked if they had any objections to having their photo taken. The farmer, backward in coming forward as usual, said not a word—he was too busy getting that tire on. The milk-hauler, forward by nature, exclaimed, "No, I haint no objections to havin' my picter took, if the other feller haint."

Some of the excellent farmsteadings to be seen in the neighborhood were the admiration of the whole party. A good deal of time was taken in getting snapshots of these homes of the enterprising Canadian dairy farmer. This, together with the great heat, prevented us visiting so many factories as we should have liked, and we hereby tender this explanation and apology to some of those who may have

been expecting to receive a call from us.

Taking the factories in the order visited, we shall first call in at the East Zorra and Blandford factory—more commonly known as the Innerkip. The first thing that strikes the visitor is the very pretty flower-bed along the south side of the factory. All the south windows are filled with flowers in bloom. Alongside the septic tank sweet peas bloomed in profusion, their rich perfume in nowise affected by the rather pungent odor coming from the septic tank.

Mr. "Ted" Johnson, and four helpers, have everything inside shining like the proverbial "nigger's heel." It is a pleasure to visit so clean and tidy a factory, which is as it ought to be, where food products are manufactured. The cool-curing room here, as well as at Bright, Cassel and Eastwood, were as "cool as a cucumber"—or at a temperature of about 60° F., while at other factories the temperature in the curing-rooms was 70° to 76°. The air outside was in the "nineties." The quantity of milk has fallen off considerably during the past week at all the factories visited, and it seems probable that the make of cheese from now on will decrease very rapidly, especially if the hot, dry weather continues.

The cheesemakers at the Innerkip factory used to be troubled a great deal with bad flavors in the cheese, but since they have adopted the method of pasteurizing the whey these troublesome flavors have almost entirely disappeared. This is true for all the factories