

urging to measures so pressingly needed, and yet urging seems necessary. We are far from exercising the foresight and thrift of the Swedes, who, for every tree cut down make a practice of planting two. May their example inspire us, and the forestry campaign be carried out more vigorously in the future than it has been in the past.

Rotation and Manure.

A good place to see the effects of a three years' rotation is the farm in connection with the London (Ont.) Asylum for the Insane. The farm manager, Mr. Wm. Murdock, outlined his rotation as follows: Corn and roots, followed by spring grain seeded to clover, broken in the fall for roots and corn. The root land is plowed twice; for corn, the sod is sometimes left until spring. It has been the practice for some years to sprinkle the liquid manure over the meadows. The urine drains from the stalls into a large cistern underneath the center of the saucer-shaped, cemented manure yard. From here it is pumped into a tank, such as the sprinkling tanks seen on city streets, only a little smaller, hauled out and sprinkled on the land about three loads per acre. We question whether it would not be more economical of capital account to dispense with the tank and drain the liquid into a cemented manure yard and allow it to mix with the litter; but the application of the liquid in some way or other cannot be too highly commended.

Some splendid potatoes, corn and mangels were noticed on a fifty-acre block of new land, which, until being underdrained, was described as a regular bog. There is need in this country for many thousand more miles of tile. Nothing undertaken on the farm is more productive of genuine satisfaction and permanent profitable results.

The Weed Problem.

The weed problem is closely related to the seed problem. On September 1st the new Seed Control Act came into force, and farmers all over the country should have an eye on its provisions, as it means a good deal to them. This Act, which was framed to protect, to a large extent, those farmers who buy their seeds and who wish to get good stuff when they buy and have to pay big prices for it, will react on those farmers who grow seed for sale. While the farmer is exempt from the law, and can sell his own seed on his own place to his neighbor who is in a position to know what he is likely to get in the seed he buys, yet, when he sells to the trade for recleaning, if it is not pretty clean he is bound to be cut in the price he will get, as compared with that for seeds of first quality. In fact, the seedsmen have already discriminated against him for some years. Only last fall I could have had 40c. or 50c. more per bushel if there had been no foxtail in my clover seed. This is not a very noxious weed seed, yet the presence of it was taken advantage of by the trade. An hour or so spent in that field would have paid me handsomely. I could have taken a scythe and before the foxtail had seeded I could have cut all the spots where the clover had been killed and where, mostly, the foxtail grew.

I wish to draw attention to the value of weeding grass seed crops in the field. There are many plants that could be removed. Curled dock, for instance, is one of the prohibited weed seeds. This plant is a heavy seeder. It would only take a little time in most fields, I have seen where grass seeds are grown to prevent these plants going to seed. If the ground is too hard to pull the plants, they may be cut off with a sickle.

Rib-grass, which is a prohibited seed and almost impossible to screen out of red clover, where it is frequently found, could be greatly lessened by cutting those parts of the field where this plant occurs abundantly. It usually flourishes where the ground is a little cold and sour, or where the soil is somewhat springy.

It will pay farmers who are growing grass seeds to invest in good screens to separate weed impurities. It might pay a number of farmers in a locality to buy a mill which is especially adapted for such work, and which I and many of the local seedsmen possess, to clean the farmers' seed after deducting a reasonable price for the price to pay for recleaning.

Very much of weed life can be checked if farmers could take time to cut and burn the weeds they went to seed; they probably would not have thought it would pay. It is one of the things which mean the difference between a good and a bad crop. Those who look after it have clean seed and do not require to cultivate so much in order to obtain clean and profitable crops.

At this season of the year the best means of cultivation cannot be too strongly urged as a means of cleaning the land. Very many weed seeds are induced to sprout and grow where such shallow cultivation is given, as in a spring-tooth cultivation or disking in the fall, or the use of the grubber or light plow on heavier soils. Ribbing "couchy" in the fall is strongly recommended.

rotations are also very satisfactory in weed extermination.

On very weedy farms I can strongly recommend applying the stable manure which contains the weed seeds, thoroughly working the land, and sowing on it a mixed crop to cut for green food or to make into hay. In this way weeds are cut when they have exhausted a good deal of the nourishment which has been stored up in their roots and before they have formed seed. Some of them, cut green and mixed with grains or grasses, become palatable to stock, and are also nutritious. A heavy growth of grain smothers a good many weeds the seeds of which sprout late. I find, too, that buckwheat is one of the best smothering crops we have. Fall rye is a useful crop in this way as well when it is pastured in the spring or cut green for soiling. If it be followed with another cleaning crop, as a hoe crop of some kind, the work is more effectually done.

I trust that there will be such an awakening over this weed problem, through the weed bulletins which have been published, the articles written in the papers, and the discussions at farmers' meetings, etc., that every farmer will whet his scythe and see that his part of the road side is cleaned up, as well as all the other waste places about his farm. I believe that the beginning of the end of weeds has come. In travelling over the country there are evidences of it in the clean roadsides and the attempt that many farmers are making in hand pulling the foreigners they see, and the greater care they are taking in getting clean seed to sow. The seedsmen everywhere say there is an increased demand for good clean seed. These straws are a pretty sure sign how the wind is blowing. I hope every farmer will fan the breeze until it reaches the proportion of a hurricane against the weed nuisance.

T. G. RAYNOR.

Threshing Time.

As the threshing season is now on, it may not be out of place to offer some hints as to the plan of operations to be employed to facilitate that work. The farmer should engage sufficient help and make necessary arrangements so that he can himself be free to keep an eye to business and keep everything humming; and, even then, at the close of the day he will realize that he has been fully busy enough. There is no end to unforeseen wants when the machine comes round. Every wise man will strive to get the job over and the men away at the earliest possible moment, keeping in view efficiency of work done. It is expensive business in many ways keeping a large force of men about the place.

In the first place, the farmer should be "boss"—not for the sake of being so, but it is his work that is being done, and he should have "go" enough in him to take his place as manager, at all events. When the men come, he should size them up to the best of his ability, and place them according to their respective qualifications and the requirements of the work. It is poor policy to say to each man "go where you wish;" it will lead to all kinds of trouble. If the farmer carefully plans his work all will respect his wishes and everything will work off smoothly. On the other hand, where a man shows laxity in his own barn, he will soon find that disorder and confusion will infect the whole crowd, and especially a crowd of threshers, the majority of whom are generally very young men and boys.

Where there are so many men and high-priced machinery at stake, it is easily seen that every minute should be profitably utilized. Forks, rakes and shovels should all be in readiness. It is wisdom to have a couple of chaff baskets for cleaning up the floor. Much valuable time is lost through a lack of sufficient tools with which to expedite the work of cleaning up. These things should be on hand and placed in the hands of any who would undertake to shirk this part of the work. Water for the men to drink, and all their needs, should be thoughtfully looked after. Bins for the grain, boards, saw, hammer and nails, also, must be convenient and in order. As well as all this, the farmer must keep his eye on the straw stack, to have it placed in the part of the yard most desirable, and try to have a good top, that it will save.

Perhaps, in many cases, the most difficult task is to watch the thrasher—that he is keeping the machine clean so it can handle the grain to advantage. None but careful feeders should be allowed on the stand, for it is only when a steady feed is going on that a machine can be expected to do good work. Bursts of speed to "lay off" are not profitable, and ought not to be tolerated where a man's crop is at stake. All the things looked after by the farmer makes him the busiest man of the place, and he should firmly see to these matters, for it is his crop that is the final stroke to the year's harvest, and he must not make too much sacrifice for a man to toil hard for six months to produce a crop and then have a lot of it wasted in a few hours at threshing time. Perhaps these hints would be of use to the Western farmer, where the thresh-

er charges from \$4 to \$5 per hour for the outfit, than they are here; but time is money anywhere, and no one can afford to play on threshing day.

J. R. H.

Wentworth Co., Ont.

Thrift and Matrimony.

To the Editor "Farmer's Advocate":

I was very much interested in your article on "Why Don't Farmers' Sons Marry?" and think I know at least one reason why. Although not a farmer's son, I am in the same position as many such, viz., working out. But I don't intend to be so very long. No, I'm not going to marry yet, but I am going to try to be in a position to do so. Why don't farmers' sons do as I intend to do—rent a farm, and work for all they're worth? The reason I mentioned is, lack of enterprise. As a whole, Canadians are an enterprising nation, but the average farmer's son is an exception to the general rule. I know there is an objection to renting a farm, but many do it and make a good living out of it; at any rate, a better and healthier living than a mechanic or a city clerk. Besides, which is worse, to pay rent, or raise a loan on your farm? In the first case a man is his own master, and if he so desires, can leave a bad farm for a good one. But in the second case he often has a bad farm on his hands, and, because of the heavy mortgage on it, cannot dispose of it without losing money, for he must get what he gave for it or be a loser.

Now, every farmer's son should have saved, at the age of twenty-five, at least \$1,000, which is quite enough for a good start on a rented farm. I know that many work at home and receive no wages, but that is their own fault. If they were not there the hired men would be, and would have to be paid. Therefore, my advice to the farmer's son, or the hired help, is, save your money, look around for your wife (it takes time to find the right one), and always do your work as if you were on your own farm. Then, when you've got the money, get the farm first, then the wife. Spice both with a little economy (not meanness) and work hard, and you have your happy home. One word more—the day before your marriage send in your subscription to the "Farmer's Advocate"; it's a necessity for both you and the wife.

"FENBOIS."

The Advantage of Growing Mixed Grains

It is not the intention of the managers of the Agricultural College farm at Truro, N.S., to conduct many experiments. That work is already being carried on at the Dominion Experimental Farm, Nappan. But with the idea of inaugurating co-operative experimenting, such as has been carried on with such great value to the country in connection with the Ontario Agricultural College, a few practical experiments were conducted this year by Mr. F. L. Fuller, agriculturist. The following is one which will appeal to the gradually-increasing body of farmers who believe in feeding the grain that is grown upon their fields to stock on their own farms.

Three plots of ground, side by side, and with conditions as nearly alike as possible, were selected. On one oats alone were sown, on the next barley alone, and on the third a mixture consisting of equal parts of barley and oats. The varieties used were Daubeney oats and Mandscheuri barley, both of which ripen about the same time. The three plots were sown on May 16th.

The following table shows the results:

Crop.	When harvested.	Yield of grain		Yield of grain		Yield of straw
		per acre	in pounds.	per acre	in bushels.	
Barley	August 14th	3,520		73 1-3		2,880
Oats	August 17th	3,166		91 2-3		2,560
Mixture	August 17th	4,079		99 1-2		2,800

As will be seen, the increased yield of the mixture, as compared with barley, was 559 pounds, and as compared with oats, 913 pounds. The sowing and all details of cultivation were alike in each case. These results are in accordance with the practice of quite a number of Maritime Province farmers. They are in accordance with results at Guelph, Ont., and with the practice of a great many of Ontario's best farmers. They are worth thinking about.

How many farmers interested in the advancement of agriculture in the Maritime Provinces will carry on this experiment on their own farms next year if we supply the necessary seed? Write to Mr. F. L. Fuller, agriculturist, at Truro, about the matter.

By the way, how many farmers are growing Mandscheuri barley? We have had splendid results from this variety this year, and will tell about it in a later issue.

M. CUMMING.

Principal College of Agriculture, Truro, N. S.

The United States consumes over 500 million bushels of wheat for seed and food. It is estimated there will be about 100 million bushels for export out of the 1905 crop.