

Making Sure of a Crop

A number of articles from farmers who have successfully improved their farms by proper methods of soil management and the growing of hay crops

HOW I INCREASED THE CROP YIELD

In selecting the seed I always reserve the plumpest, best colored grain from the crop that yielded the heaviest on the principle that like begets like. I believe that seed from a heavy yielding crop is more likely to produce a record yield than seed from a lighter crop, altho the sample may be a little better sometimes from the lighter yield. By fanning the grain about three times you can get a fine sample of seed, altho you will only get about one-third as much selected grain suitable for really good seed. The third time I always put in a lower screen with a larger mesh, and that lets thru about one-third of the former bulk, and this one-third is generally composed of broken and deformed kernels. I leave the wind boards wide open all the time, and turn fairly fast, and that blows out all dirt and light grain altho lots of that grain looks just as good as the selected portion. Treating this way generally increases the weight of wheat and oats about four pounds per bushel.

In treating for smut I use formalin and treat by hand. I back the wagon up to the granary door at night, and after supper treat about forty bushels, which does for two days' drilling. I place a tub next to the wagon, on which are a couple of slats. Then have the barrel containing the solution between the tub and the grain. I perforate the bottoms of three 5-gallon oil cans, on which I have handles. If punching the holes with a hammer and spike seems too slow, good results can be obtained by placing the can on the ground about eighty to a hundred yards away, with bottom turned toward you, and firing a couple of charges of shot into it with a shot gun. I fill the can within four inches of the top with wheat and then immerse it in the solution until the can is overflowing, then set it on a couple of slats over the barrel while I fill another can with wheat, then transfer the draining can to the slats over the tub while I immerse the second can, then fill the third can and repeat, and then dump number one into the wagon and repeat. I find this way is very thorough and as quick as shovelling. The smut machine has a skimmer that floats off the smut balls and light grains, but I have never been troubled with them with the triple cleaning.

I then cover the load with blankets, and in the morning the grain has absorbed the moisture and is swelled up plump and dry. I open the drill up about 20 per cent. to allow for the swelling. As I do this every year I have no smut that I have noticed.

Fall Plowing Best

I find fall plowing preferable to spring plowing here in Southern Alberta. I have never been able to disc right after the binder, but plow about six or eight inches deep as soon after threshing as possible. I pack once or twice within twenty-four hours after plowing and follow with the harrow, then harrow after every rain or snowfall until freeze up.

If this land is seeded first in the spring it will generally raise twenty bushels of wheat. Spring plowing sometimes raised a fair crop of oats—about thirty bushels—or good green feed, but does not retain enough moisture to start the wheat evenly or keep it growing vigorously until the summer rains.

In summer fallowing, I double disc any ground that is weedy as soon as I finish seeding, and then start plowing on the cleanest ground, working toward the dirty part. Each night I unhitch from the plow in time to make two rounds with the packer, which laps about half and thus packs the ground twice. I plow the first time about six inches deep and then go a couple of

inches deeper the next two plowings. I don't harrow this ground until we have a rain heavy enough to soak the soil deep enough to cause it to form a crust when it dries, and then I harrow as soon as the ground is dry enough to work without sticking to the harrow teeth. I find harrowing once then does as complete a job of pulverizing and packing as twice any other time. I continue harrowing in this manner after every rain or snowfall until freeze up. In the spring the ground will be moist to within an inch of the surface, and as it is only necessary to sow the grain deep enough to get it in moist ground, the grain is up in a week, nice and even, and keeps growing right along until harvest, when from forty to forty-eight bushels of wheat and eighty to one hundred bushels of oats are ordinary yields. This beats the old slip-shod methods of putting indifferent work on a large number of acres and getting from fifteen to twenty-two bushels per acre. The harrowing after every fall of moisture is the main point, as it keeps the moisture and weeds where they belong—down. Where there is a patch of buckwheat or stink weed, I stroll over about one evening a week with a hoe and a can of gopher poison. If we get a rain heavy enough to cake the ground before the grain is eight inches high, I harrow the grain.

Breaking Methods

In breaking, I plow in May from four to six inches deep and pack the same day, then at the close of the

and $\frac{1}{2}$ bushel of flax per acre, opening the drill about 20 per cent. to allow for the swelling after treating for smut.

A good summer-fallow or breaking will average twice as high a yield as any other method of farming, and the same cost of seeding and harvesting. One extra good year this first-class cultivation raised 52 bushels of wheat, 130 bushels of oats, 86 bushels of barley and 29 bushels of flax per acre. The one drawback is that the crop is liable to be frozen in a wet year, but years like last year was in this district, the wheat averaged 22 bushels, and when the crop froze in 1911, I had 5,500 bushels of feed wheat from 250 acres, and this wheat stood in the shock all winter and there was considerable loss from birds and stock getting in.

Kill the Gopher

By carrying a small pail of poisoned grain on whatever implement you are using and dropping a few kernels at each fresh gopher hole you come across, or follow each gopher you see to his hole and leave him a feed, you get rid of this pest on the cultivated land. Then go around the outside of the crop and put poison on the snow that generally comes in April. Do the same one evening a week and poison any hole that shows signs of being inhabited by a newcomer from vacant land adjoining. Two or three dollars' worth of poison used this way will practically eliminate waste from this source. I rake the shock rows right after threshing, and get several loads of good hog

rained before I got it all harrowed once, and then I had to start over it again, not as most people seem to think, to level the ground, but to form that all-important mulch.

THE UNDERDOG.

Alberta.

SUCCESS WITH RYE GRASS

I have been growing Western Rye grass for fifteen or sixteen years, and find it is the most suitable for my land, which is a light soil. I have also tried several ways of seeding the grass. I find that in seeding with a nurse crop, if the crop gets a good start and is fairly heavy, the young grass plant is rather weak, not getting much moisture nor sunshine, and if the fall be dry it has a hard time to pull thru. Then if you sow it all alone on shallow plowing, as is often suggested, the wind often cuts the tender plant off. I tried a scheme of my own some years ago, and since then I have never failed to get a good catch. In the early spring, as soon as the frost is out of the ground one or two inches, I sow the rye grass with a disc seeder on the field that needs summerfallowing. You are always sure of moisture to germinate all the seed at this time, and never afraid of the wind—our worst enemy—as the stubble protects the plant. This field will make good pasture the first summer, or you can mow often to keep down weeds and it will give you a good crop of hay the following year. It has never failed with me, and all kinds of stock are fond of it. From 12 to 14 pounds of seed per acre is about right. It is easy to cure and easy to thresh for seed. If the seed is good it will run out of the seeder without mixing with other grain.

GEO. GORDON.

Oak Lake, Man.

WESTERN RYE ON ALKALI GROUND

I have been growing Western Rye grass for several years. My object was to test it out on land that had too much alkali to grow a crop of grain. My method was to seed down a few small patches in the cultivated fields where the grain had failed to grow the previous year, and the result was a surprise. I found the soil that was not too strong with alkali grew a splendid crop of hay. I was so encouraged with it as pasture and hay that I seeded twenty-five acres. That was four years ago. The following year I threshed and sold about five hundred dollars' worth of seed, most of it to one of our large seed houses, and have been growing and selling seed every year since. I find that it pays well in dollars and cents, besides putting the soil in good shape for grain, especially the alkali spots. I would just say right here, never summerfallow land that is impregnated with alkali. The capillary action brings the alkali from the sub-soil and leaves it just where it will be absorbed by the next year's plants. My plan in growing Western Rye grass is to plow the ground as soon as possible after oats and barley are in, harrow down fine, sow broadcast without a nurse crop, harrow twice or three times, and if you have enough moisture to germinate the seed you do not need to worry about a good catch. As a rule I find quite a lot of pigweed the first summer, but it is a small job to get rid of that. Run the mower over it just before harvest, leave the weeds lying where they fall, and that ends the trouble as well as providing a mulch for the grass. I would just like to say that I do not consider Western Rye has anything like the feed value that alfalfa contains, but it is so very much easier to grow and thrives on soil where alfalfa would be a total failure.

JOHN G. CORBETT.

Goodlands, Man.



Alfalfa planted in rows and cultivated will give splendid returns and, in certain districts, produce seed profitably

rainy season double disc, pack and harrow; then after harvest double disc angling and harrow twice. Ground treated this way, but only worked when moist, will raise a bumper crop. In regard to depth of seeding, I find the shallower the seed is sown the quicker it gets the necessary warmth to germinate evenly, provided the seed is down to damp ground. On indifferent cultivation it is impossible to get good results, as part of the seed is on damp ground and germinates promptly and the balance waits for a rain to start it; then when the first lot is ready to harvest the second lot is about a foot shorter and just in the milk. By the time the second lot is ready to harvest, about one-third of the first lot is scattered on the ground. This reduces the yield considerably, as the second lot generally shrinks and lowers the grade. I would not recommend sowing deeper than two inches in any case. I sow $1\frac{1}{2}$ bushels of wheat, 3 bushels of oats, $2\frac{1}{2}$ bushels of barley

feed, and this increases the yield as it saves considerable hog feed. The screenings from around the setting when the thresher is gone, gathered up in a wagon box and put near the hen house make good scratching and feed for the poultry.

In regard to putting crops on stubble after a summerfallow crop, I find harrowing the stubble crossways and then lengthways and then drilling crossways and harrowing lengthways works up a fair seed bed and cultivates the ground enough to conserve what moisture there is to start the seed. This should be done before you seed the summer-fallowed land, because if you leave it to the last the moisture will be gone and your crop a failure, except in a wet year. The main point in this dry district is to plow deep to get a good layer of moisture-absorbing and moisture-ertaining soil, and then keep the moisture there by constant harrowing after rains. I have had to harrow a piece of ground twice in a week, as it