

# Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto

## Controlling Thistles.

The point that must be kept in mind in fighting thistles is that the roots, rather than the tops, must be killed. Simply cutting off the tops a few times has much the same effect as pruning an apple tree. But if the tops are cut off deep and frequently, the roots must eventually suffocate through lack of leaves. Bearing this in mind, any one of the following methods will be found effective:

**Summer Fallow.**—This method is most suitable for one-half acre or more of thoroughly infested land, from which little revenue could be expected anyway. Plow deep in the fall, exposing the roots to the frost. Harrow in the spring to kill seedlings of annual weeds. Let the thistle grow until the first blossoms appear, about June 15, or until there is danger of other weeds going to seed. Plow shallow, and from then until frost use disk harrow often enough to prevent thistle leaves from making over four inches of growth. If the thistles get more than six inches high at any time, all the previous work will be undone. This applies to all methods. Follow this treatment during the second year with a cultivated crop, giving it a little extra cultivation and hoeing out individual thistles.

**Partial Fallow.**—For grain fields or old meadows, cut the crop early for hay, if necessary, to prevent thistles from seeding. Allow thistles to grow for four to six days, then plow, and proceed as in first method for remainder of season. For cultivated ground, allow thistles to grow until first blossoms appear; then plow shallow. When thistles are about three inches high, disk thoroughly and plant late smother crops, as in the smother-crop method.

**Smother Crops.**—Combination of above. A good method on rich ground. Cut grass or grain early for hay. Plow shallow four to six days later. Leave for four to six days more and disk thoroughly, then sow smother crop of buckwheat, four-fifths of a peck; rape, broadcast six-eighths of a pound; millet, three-quarters of a peck; or fodder corn in check rows. After the crop is off, keep thistles down by disking until frost. Hemp and alfalfa are excellent smother crops in sections where they are grown. Alfalfa may be either spring or fall sown, according to custom, but the surface of the ground must be clean and well prepared before planting.

**Cultivated Crops.**—Most generally used method. Corn in check rows is the best crop. Have ground clean before planting. Equip cultivator with nine-inch sweeps instead of ordinary ones. Keep sweeps sharp and cultivate frequently. Hoe the corn after laying by, and cultivate the ground after harvest with a disk harrow until frost. Repeat second year.

**Hoeing and Cutting.**—Best method for small patches. Stake out the patch and visit it regularly with a sharp hoe or scythe at least twice a week.

**Chemicals.**—There is no chemical that in reasonable quantities will kill thistles with one application, unless applied directly to the cut root. For spraying use sodium arsenite (a violent poison), two pounds in ten gallons of water; common salt, one pound in one and one-half quarts of water; or crude carbolic acid, diluted one-half. If animals are salted on a small patch of thistles, the thistles will finally disappear. Frequent spraying of the thistles with the above chemicals may be used instead of cutting, in rocky or other inconvenient places.

**Miscellaneous.**—Sheep will sometimes graze thistles to death if forced to do so. Small patches of thistles may be smothered by covering with overlapping strips of tar paper or

building paper, weighting down the laps with earth and leaving the paper on for eight or ten weeks during hot weather. A coating of straw or manure one foot or more in depth will answer the same purpose.

## Money In Waste Grain.

Three years ago, an Iowa farmer, who was raised in Canada, bought a run-down farm in Kansas and went to work to make it into a profitable wheat-producing land. Last year his wheat made forty-two bushels to the acre, while the next best record in the community was only twenty-two bushels.

Instead of living on his farm, he rented it to a Kansas man on shares, and when threshing time came, the owner went down to look over things. "The first thing they did," he said, "was to tramp down a whole swath with the reaper clear around most of the fields before they started to cut the grain. In Canada we always mowed a strip around the field with a cradle before we started the reaper. I asked the tenant why he didn't cradle the edges before going in with his reaper."

"He only looked at me blankly. He had never seen a cradle. He argued that while I might save some grain, that when I figured in my time I wouldn't make anything by it. So I had to let him go on and tramp down the grain."

"At noon while the men were eating dinner, I took a team and went into the fields that had been finished. I raked up all that had been dropped and missed, which was not one bit more than is dropped or missed on the average American farm. I took a scythe and cut the grain that had been left standing in the corners and around the edges. Then I took a hay-rake and raked it up."

"I stacked all the grain separate that I had collected in this way, and after all the threshing was done, we threshed out this grain, because I wanted to see to a certainty just how much I would get for my trouble. 'Well, do you know, I got enough wheat to pay all my threshing expenses and my personal expenses from Iowa to Kansas and back again? The effect of that demonstration was that the others in the vicinity sent away and bought cradles and are now using them before they sent in their reapers. They never dreamed that such a little bit really made such a big difference.'"

Another farmer told me last summer that he saved from one to three per cent. of his crop by clean harvesting and threshing. That means that he was adding from one to three bushels to every 100 he threshed. When you think of that saving in terms of the market price of such grain, you begin to realize why this particular man had such clean stacks, such fine buildings and fences.

"It is just as easy to take things clean as you go, as to be slovenly and slipshod about it," he said. "We don't hurry when we are cutting the grain or loading it on the racks. We take our time, and that means that we take everything clean."

I walked across his wheat stubble and I would be willing to double all the wheat grain that any one could pick up—even at present prices—on all his 100 acres of small grain, for I know that it wouldn't take ten cents to do it!

These wheat growers are clean harvesters. One of them told me that he sent the boys into the fields with cradles and scythes in advance of the reapers to take out the grain in the sharp corners and along the fence rows.

"They get it out before the teams have a chance to tramp it down. It

isn't much trouble and the boys like to do it, because I give them half of what their stack threshes for doing it. I got enough out of my share last year to pay threshing expenses."

Where threshing can not be done immediately you will find that these farmers invariably stack their grain. They do it because it pays them. And if they are making money, you can make it too. No one has a patent on the idea.

## Poultry

In the poultry business it is the man who sells the goods that makes the money. Therefore every poultryman must try to produce quality stock so that the other man will be anxious to buy. "Always something good for sale," is not a bad motto for the farmer-poultryman who wishes to make the business pay.

Repeat orders are necessary in developing a profitable poultry business. The buyer who purchases a cockerel this fall may be in the market for cockerels next fall. It is the satisfied customer who will come back again and possibly bring friends with him. Every poultryman must strive to please his customers, as they are the foundation of success.

The number of eggs is not the great thing to be worked for. Put quality first. What determines quality? First, the eggs must be made of the purest food possible. Then, they must look nice. Also, they must be strictly fresh. Finally, they must be of good size. If all these points are present, the price will scarcely be other than right.

Floors of portable colony houses should be at least one foot from the ground, and the space underneath should be open and free. Permanent brooder houses should have cement floors, and the doors and windows should be screened with one-inch mesh wire fencing. If such precautions are taken, rats and weasels usually do little damage.

## On the Farm.

There's nothin' quite so good for the health as choppin' wood. Unless it's doin' chores. For it keeps you out of doors. An' 'gittin' in the hay is the healthiest kind o' play. Hoeh's 'taters strengthens backs. Most as good as pullin' flax, an' draggin' in the calf.

Is a job to make you laugh. It gives you pluck an' brawn To rise before the dawn. An' then come home at night Feelin' tired out, but bright. I tell you there's a charm In workin' on a farm.

Standards and averages are all right, but for the individual it is the extra hour of labor and the extra bushel of wheat to the acre which bring the profit.

## Using Printers' Ink to Find Customers

Business men of the towns have found advertising of one kind or another their most useful ally in selling what they make or undertake to market. Farmers, taking them as a whole, have made little use of publicity, though some, it should be said, do admirable advertising—much better than small-town merchants, who too often merely generalize or try to be pointedly humorous or clever.

Perhaps farm people have looked on advertising as a mysterious or difficult method beyond their ability. Such is not the case. Said a bright farm housewife, who was advised to employ advertising methods, "I don't know a thing in the world about advertisements or how to write them."

"You don't have to know much about advertising," urged her adviser, "just sit down and write a letter to somebody about the thing you have to sell. Give the reasons for buying it, and a good description. Then go over your letter and make it as concise as possible, compose a heading for it that you think will attract the favorable attention of readers, and you have an advertisement."

Letters, by the way, are often the most effective kind of advertisements. A country housewife 400 miles away from Toronto gave particular attention to poultry, with the result that she could ship crates of eggs regularly. "Why can't I locate some one in the city who would buy these from me direct?" she asked herself, and she answered her question by writing letters to a few of the larger hotels of Toronto. One of these hotels was very glad to take her entire output, and for years she has found that a most satisfactory arrangement. There was no special difficulty here. Had our lady not known the names of a number of the hotels, any newspaper of the city would have answered an inquiry on that point.

A farmer who produced a considerable quantity of fine hams and shoulders figured that some of the higher-grade food stores or department stores maintaining food sections might be interested in securing his stock every season. A few letters unearthed the fact that one of the high-grade department stores was glad to buy all his goods. This is but one more example of letter advertising. A study of the principal daily newspaper of a city will show which are the progressive stores.

Several women have built up a nation-wide market for their special

## Just Hides.

It is axiomatic in the packing industry that one cent in the wholesale price of hides means an important difference in the price per hundred-weight of beef. That is, the higher the return from the hide when sold to the tanner, the lower is the price at which the packer may sell the beef to the butcher, or the higher the price he may pay the farmer. Over 35,000,000 lbs. of hides a year are handled through Canadian packing houses and abattoirs alone. Not one of these firms has its own tannery. The ultimate magnitude of a price-change of only a few cents may therefore be understood.

Recent tests in Toronto showed an average 1,000 lb. steer to yield 540 lbs. of carcass meat and 70 lbs. of hide. There were 267 lbs. of waste (manure, shrinkage and evaporation), which were wholly lost, while the remainder was by-product.

If the cost of labor, processing and selling be left out of account and an arbitrary figure of \$10 be taken as the value of the by-product, not including the hide, the difference in the cost of the beef can be easily grasped by the consumer from the first of the following tables:

|                        | When hides are 20c per lb. | When hides are 15c per lb. |
|------------------------|----------------------------|----------------------------|
| Cost of live animal    | \$120.00                   | \$120.00                   |
| Less by-products       | 10.00                      | 10.00                      |
|                        | \$110.00                   | \$110.00                   |
| Less value of the hide | 21.00                      | 10.50                      |

|                                 |          |          |
|---------------------------------|----------|----------|
| Therefore cost of 540 lbs. beef | \$ 89.00 | \$ 99.50 |
| Or, per lb. ....                | 16.5     | 18.42    |

The farmer-producer will better realize the importance of the price obtained from hides from the following table:

|                                           |          |          |
|-------------------------------------------|----------|----------|
| 540 lb. beef at 16.5c                     | \$ 89.00 | \$ 99.00 |
| Value of by-products                      | 10.00    | 10.00    |
| Value of hide at 30c and 15c respectively | 21.00    | 10.50    |

|                      |          |          |
|----------------------|----------|----------|
| Value of live animal | \$120.00 | \$109.50 |
|----------------------|----------|----------|

## The Farmer's Brain Tools.

The time has passed when successful farmers depend chiefly upon muscular strength and farm machinery; farmers with brains must use brain tools, if they keep abreast of the present situations. Their brain tools are agricultural papers, bulletins, journals and magazines.

There is never any "red tape" on the price of brain tools, and the more a man invests in them the more he realizes that they are bringing him greater returns in comfort, happiness, health and ease for his vocations, which after all is more than money.

There are three parties to a farm lease; the tenant, the landlord and the land. But the land usually has to go unrepresented.

## Financial Notes

Since the discovery of silver in Cobalt in 1903 and the finding of gold in Porcupine and Kirkland Lake districts in the past six years, mining companies have produced approximately \$254,001,586. These figures are up to the end of June, 1920.

Serious damage estimated at at least \$100,000 to the Niagara Peninsula fruit crop resulted from severe wind, rain and hail storm which swept over the peninsula Saturday afternoon. While the storm lasted only forty minutes, damage was very severe in the Niagara Falls district, two-thirds of the fruit being estimated ruined.

Canadian National Railways' gross earnings for the nine-day period ending June 30th totalled \$2,471,419, as compared with \$1,811,838, an increase of \$659,581. For the year to date earnings totalled \$45,564,824 against \$41,485,782, an increase of \$4,079,042.

Boston.—The president of the Brockton Shoe Manufacturers' Association says the real peak of shoe prices has been passed and that competition will inevitably bring about a reduction in footwear prices, a fact to be regarded as "desirable and necessary from every point of view." He expects no demand sufficient to put shoe fac-

tories on full time this summer and says we are coming back to old conditions where 80 per cent. of capacity can produce all the needed footwear.

Chicago.—The monthly customs report shows that during the month of June 4,000,000 pounds of sugar arrived here from Canada. It was originally purchased in Cuba by English merchants, sold to Canadian consignees and resold in this country.

The Provincial Paper Mills, Ltd., has forwarded notice to the shareholders that the stock certificates of the new company are now ready and requesting the certificates of the Provincial Paper Mills Company, Limited, to be sent in to be exchanged. The exchange is on a basis of three shares of new for two shares of old. Half-shares are settled for at \$50, being at the rate of \$100 per share.

It is stated that arrangements will shortly be made to have the securities of the Whalen Pulp and Paper Mills listed on the Montreal Stock Exchange.

Spanish River preferred was up 2 points to 115 from the opening, at 113 on a lot of 725 shares. Brew, 150x67—68½; Brump, 825x143—¼; Laur, 300x109¼—109; M. Power, 300x84; S. River, 825x106—¼; Que. Rails, 10x28½; Sugar pfd, 50x167; Pen, 75x131¼; Braz., 75x43; Abt., 25x77½; S. of Can. 10x75.



## 'Let's go to Loew's'

This suggestion is made a thousand times every evening in any city or town where there is a Loew's Theatre.

## LOEW'S THEATRES AMUSE YOU

Loew's Theatres Can Also Make Money For You.

We now offer \$100,000 7% Preferred Stock in Loew's Metropolitan (Montreal), Limited, carrying a substantial bonus of Common Shares. This Theatre, owing to its site in the most thickly populated district of Canada's greatest City, Montreal, bids fair to become one of the most profitable in the Loew's Theatre system.

Price and particulars on application.

BALEFORD, WHITE & COMPANY

Investment Bankers

136 St. James Street, Montreal.

## PULP, PAPER and COAL

During the last year or so, tremendous profits have been made by holders of pulp and paper securities, due to the increased demand for paper.

The demand for coal to-day, in proportion to the supply, is as great if not greater than for paper. There is such a serious shortage that many industrial establishments have had to close down as a result.

On account of the tremendous domestic and foreign demand for coal, the price obtained by the Collieries is higher than ever before and will undoubtedly increase.

We predict that within a very short time holders of good coal securities will see a very substantial increase in their market value.

We Offer, to Yield Over 7½%, the

## First Mortgage Prior Lien Bonds

of an established Coal Company, controlling probably the most valuable bituminous coal deposits in Canada, together with a substantial bonus of common stock, the market value of which, on account of its tremendous earning powers, should within a few years be sufficient to return the original capital invested.

Write for full particulars.

## HERDMAN & CO.

Members Montreal Stock Exchange

201 Dominion Express Bldg.

MONTREAL, P.Q.

## Who Does The Milking on Your Farm?

Do you do it yourself or does your wife have this tiresome job twice a day the year round? Perhaps you have hired help and are paying high wages that are eating up all your profits?

There's a better way—a modern method that removes the drudgery and expense and increases the profit.

## The Macartney Machine Milker

THE COW'S ADOPTED CHILD

will do the work thoroughly and at little cost. Its better for the cows and better for you. Milking time becomes a pleasure—half the time, half the trouble, half the cost, but with more contented cows, more milk and more profits.

Most certainly this method is worth learning about—you may not be ready to buy but the information costs you nothing. Don't buy a milker without investigating the exclusive features of the Macartney. Fill in the coupon and send it to us to-day.

The Macartney Milking Machine Co. Limited

316 Catherine Street, Ottawa

Fill in and mail this coupon

The Macartney Milking Machine Co. Limited, Ottawa

Enclosure: Please send me without obligation full particulars of the Macartney Milker.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Dept. \_\_\_\_\_ I have \_\_\_\_\_ cows. B 6

## THE BIGGEST THING HE EVER DID

The jobs never seemed very big to him, but the neighbors said that Tom Barnhart was always doing something worth while, something none of the rest could do.

He found an old, run-down farm, with a hedge-row of old fence, stone piles and brush the whole length of a half-mile front. This he cleared up, plowing the land and making the strip which never had borne anything, except foul stuff, bear like the meadows beyond. Out in the middle of the field ten rods from the house an old, tumble-down barn was all the place afforded. Tom moved the frame over nearer to the house, kept whatever timbers were sound in the building, added to the length, breadth and height, until there was no finer barn anywhere around. He fixed up the house, raised it up bodily; a job that required the services of half a dozen men and more than thirty jack-screws. He put on some porches, blinds, a bay window, and gave the whole a good coat of paint. He set out an orchard of fifty trees, and did not forget to plant some beautiful shrubs about the house at the same time. He cleared the meadows of stones and cut off acres of brush in the pasture. He bought better cows than had ever been seen in that part of the country, and did it all so quietly and modestly that the people forgot to say, "New lords, new laws."

Then he was sent to the legislature, where he made good, and came back with more friends than he had in the beginning, and that was such a marvelous thing that the community wanted to keep him in the legislature; but he said he had had enough of politics and wanted to get back to his home and family. These were all big enough things, so that Tom might have rested on his oars then and there. But the biggest thing of his life was yet to come. It was no wonder he did not know it when it came, for his whole life had been spent in doing good. That was his every-day work.

Coming home from town he saw a boy trudging on ahead. The little fellow seemed tired, so Tom pulled up and took the boy in. He was a cheery little chap and thanked Tom before the ride began. Tom soon found that he was going out into the country to see if he could find something to do. "Something to do? You work on the farm? Why, you aren't bigger than a pint of elder half drunk up?" "I guess there will be something I can do." The set of the boy's mouth when he said that settled Tom's mind. "I guess there will, too." That was all Tom said; but he took the boy home with him. He learned on the way that there had been trouble in the home. Sickness had taken away the breadwinner. The mother had worn herself out caring for her husband. There were five more in the home besides this lad, still in the morning of his teens, and there was a chance that the family might be separated. "But we don't want to, though, and I'm going to do my best to keep 'em together!"

From the simple kindness of giving a lift to a small, tired boy, Tom went on to give other more valuable assistance. But he did the latter things, too, naturally and unostentatiously as if he thought little of doing them. Finally the day came when a small load of goods and a big load of boys and girls drove up to Tom's tenant house, which was then vacant. And there they all are to-day, happy, mother well again, everybody helping, and not one but is sure that the farm is the place to live, and that the man who is giving them this great chance is the best man in all the world.

And that is the biggest thing Tom Barnhart has done—so far.

## Pasturing-Off Grain Crops.

For the man who is short of labor, pasturing-off crops is worthy of consideration. Corn, lodged or waste wheat, rye and barley may be pastured to good advantage. The only equipment that is necessary is stock and a movable fence.

The advantages of the method are: 1. Quicker finishing of livestock for market. Gains are more rapid than those from ordinary barn-lot feeding. 2. Maintenance of farm fertility. The usual waste of more than half of the farm manure through feeding stock in the yards is prevented.

3. Less waste of grain through hauling, cribbing and feeding. 4. Better utilization of roughage and a more convenient way of marketing farm crops. Each pound of grain in the form of finished animals is equivalent to at least four pounds of ear corn.

Corn-growers no longer question the profitability of hogging down a part of their corn crops. Sheep are being used as a substitute for farm harvest hands in certain sections. Cattle, followed by hogs, have been found a sort of double-header proposition to save labor.

One of the most successful farmer advertisers speaks as follows: "I told, I sowed and I produced—and I found that I must sell at the other man's price and for his profit. By constant advertising I now am able to secure a fair price. My experience is that advertising pays. It frees me from my neighbors' limitations. It increases my self-respect, and has added hundreds of acquaintances and friends to my circle."



Cordor Fabric

Extravagant claims and exaggerated statements may sell tires—but they can never make tires give mileage or service.

About Partridge Tires little need be said. Their reputation for durability and dependability under all road conditions, justifies the statement "You can't buy better tires."

# PARTRIDGE TIRES

Game as Their Name