

may sometimes think. Go into the stables of today, and what do we find? Take cows, for instance. First we have a beef-type Shorthorn, then a Jersey, and a Holstein; then perhaps a grade Shorthorn of good milking qualities, which some call the general-purpose cow; then perhaps some with a general mixture of these breeds, and we wouldn't know what to call it, only it gives milk. When will we farmers learn to stick to line-breeding. Only when we breed continuously along one particular line can we hope to be successful. This lack of uniformity in size and quality is also seen in the feeding cattle. Here we have a big, rough steer, of leggy type, then one of dairy type, and then the lown-down, blocky, thick-fleshed sort. If, in our selection of steers to feed, we paid more attention to this important point, it would be worth very much to us when selling. I was struck, while in North Middlesex, at the large number of farms wholly under grass. It occurred to me we could not afford to have such valuable land lying under grass. Perhaps it is due to the scarcity of labor. I think labor conditions will improve as the Western fever is on the wane, and many who are there are going to return to good old Ontario.

Waterloo Co., Ont.

GAVIN BARBOUR.

GOOD WORDS FOR THE MANURE SPREADER.

Editor "The Farmer's Advocate":

In some of your last issues there has been considerable said about the manure and spreader question. I think this subject cannot be too well considered, as it is a very important item to the farmers.

I apply with manure spreader in spring at the rate of twelve loads per acre for top-dressing grain, and eight for meadows, with a medium-sized machine, with good results. This way is better than spreading by hand in winter, as the machine does a better job, covers more ground with same manure, and spreads it more evenly. There is also less loss in this way, because the winter-applied manure will be considerably washed away by the spring rains. It also keeps ground cold and damp in spring, and early-sown grain is generally the best. I have used a machine for three years, with a cost of \$1.25 for repairs, there being two tires set, and one link or drive chain. The spreader will spread faster than five men, if they will cover as much ground and do as good a job. With a good team you can spread a load in from three to four minutes on an average, with a medium-sized machine, spreading twelve loads to the acre. One load equals about one and one-half ordinary wagon loads. The wheels are five inches wide, and will not cut up fields as bad as a wagon, being a good advantage in a meadow or grain field. The manure is distributed very evenly, and coarse manure made much finer than it can be made by hand with fork. On a hundred-acre farm, where from two to three hundred loads of manure are handled yearly, the spreader will pay for itself in a few years in extra profits, as you can put the manure where you want it most, and with best results. A machine, properly cared for, should last from fifteen to twenty years. I mean by this, well cleaned after using, and put inside; also well oiled when in use. With these remarks I will close, hoping to hear from other subscribers.

GEORGE SHARP.

Hastings Co., Ont.

TEN ACRES CORN TO EVERY 100-ACRE FARM.

Editor "The Farmer's Advocate":

It does seem to me very strange that in this Ontario of ours, where we can grow corn so easily and so abundantly, that so little attention is paid to the producing of that important and valuable crop, as there is no crop produced on our farms that seems to be more acceptable to every class of stock than corn, as mostly everything, from the mouse to the elephant, is very fond of it, and in some districts, both in Canada and the United States, corn meal, in one form or other, forms one of the staple foods for the people. Then, why is it that we, as Canadians, do not produce more of it, instead of importing such large quantities every year? As a money-making crop, it has few equals, where it has had proper cultivation. It has been said that corn can be grown in the Western and Southern States much cheaper than we can grow it, but I think that reason very questionable. I admit that some varieties will ripen better there than in Ontario, but when we compare the food value of our crop with theirs, we must admit that they are not in it for profit.

Having grown corn for the past thirty years, mostly as a grain crop, perhaps a few hints as to our methods, etc., might be helpful to some of our beginners or young farmers who have not given the subject much consideration. In the first place, the land should be thoroughly drained, if of a wet or sour subsoil, as corn will not produce its best on a springy ground. The land, if in stubble, should invariably be plowed deep in the fall, and well manured during fall, winter or spring; better to be applied in winter, and

spread as drawn on the land, and the following spring a wide harrow run over the ground on a dry day to spread the manure evenly, then lightly plowed; or, better still, spring-tooth cultivated, if the land is not too filthy with weeds. This should be done early in May, so that the ground is all ready to plant from the 15th to the 24th of May. Although we have had some fine crops later planted, I do not consider it a safe practice to plant later. As soon as the corn shows above the ground, a light harrowing is beneficial, and a week after get at it with the scuffer; and if you want a bumper crop, keep the scuffer going through it every two or three weeks till the corn is three feet high, when it will usually take care of itself after that.

Clover sod, or even old pasture fields, will produce excellent crops if the ground is properly prepared for the seed and thorough cultivation is kept up through the growing season.

For fodder and silo corn, I think the Leaming and Compton's Early yielded the heaviest crops, but both failed to ripen the corn for seed purposes. The yellow dent has also grown well for silo purposes; but as we grow corn for the grain, rather than fodder, the dent varieties don't amount to much, except for feeding our stock when grass is not abundant in August or September. We have tested the common yellow, King Philip, Early Kent, White Flint, Yellow Danvers, Western Beauty and several other named sorts for the last thirty years, but if I were confined to any two varieties for this district, I would choose Western Beauty first and White Flint next, as the former has yielded the largest number of bushels per acre of any variety I have had for the last fifteen years. We always select the largest and best-grown ears for seed at time of husking, and hang up in a dry, airy place (usually the driving barn) till required for planting. We have no difficulty with our seed corn not growing. Our corn marker makes four lines or rows at one time, the feet being three feet eight inches apart.



A Good Shorthorn Head.

We mark the ground both ways, and plant with a Champion corn-planter at each angle, thus making cultivation easy. All samples of seed should be tested previous to planting, which can readily be done by placing the seeds between two layers of flannel and keeping them moist and warm, 60 to 70 degrees F. In shelling for seed, we do not use the tip rows on either end of the cob, so as to obtain a uniform sample, using nothing but selected cobs for seed.

I think every farm of 100 acres should have at least 10 acres in corn, making a 4-year course, viz.: Corn, with plenty of manure in the land; next wheat or oats, roots and barley, and again seeded. This rotation, if worked out intelligently, will give returns of from 80 to 140 bushels of cob corn per acre, and leave the ground clean for the next crop.

I have tested planting in hills and drilling, but prefer planting in hills as the surest way of getting a big crop. The shotgun and a good marksman are a necessary adjunct for protection against crows, but this is about all the enemies the corn crop has. In short, manure heavily, cultivate thoroughly and frequently, and use nothing but warranted and tested seed if you want a bumper crop.

Ontario Co., Ont.

R. L. H.

LIST OF STANDARD CORNS.

The Wm. Rennie Seed Co., Toronto, Ont., recommend the following as standard varieties of flint corns:

North Dakota, eight-rowed, earliest.
Compton's Early, twelve-rowed, second earliest.
Longfellow, eight-rowed, third earliest.
Standard dent varieties:
White Cap Yellow Dent, earliest.
Wisconsin, second earliest.
Mammoth Cuban, third earliest.

NEGLECT OF THE CORN CROP.

Editor "The Farmer's Advocate":

Corn, as one of the leading crops in a rotation on the farm, has been strongly advocated by all our leading agriculturists. In late years, I fear that, owing to a scarcity of farm labor, many farmers in certain sections of the Province of Ontario, at least, have been shortening up their acreages or dropping it out altogether. This is a great mistake, as, if properly handled, no crop on the farm can be better relied on to give a safe return for all the labor expended on it, and the better the corn crop is cared for, the larger the returns. The corn crop fits the land for future crops, and cleans the field from almost all weeds. Corn will do well on sandy loam, clay loam or gravelly soil; in fact, in almost all soils except a heavy, stiff clay, provided the land is well drained.

A clover sod makes the ideal previous crop. If on sandy soil, the clover can be allowed to start, and be plowed under from the middle to the 25th of May, rolling in the evening what has been plowed the same day. On heavier soil it is preferable to plow earlier in the season, and harrow or disk at least once a week until planting time, which should be as soon as the soil is well warmed, from the 20th of May to the 1st of June. There is a difference of opinion amongst growers as to the best varieties for the silo, owing, I firmly believe, to the practice of planting too closely and not working sufficiently. If the crop is not grown so as to ensure a good ear on every stalk, the grower will agree that the large-growing dent varieties are the best; but if grown properly, I have never found a man who has secured a good crop of the leading flint varieties but will say he prefers his ensilage to any he has ever obtained from the larger dents. The flint varieties have one strong point in their favor in every section of the Province of Ontario, except the most southern, and in all of the eastern Provinces, viz., that they are earlier, and will reach the proper stage of maturity at a time to escape early fall frosts. Good seed should be secured early in the season, if possible. Buy in the ear, so you can judge of the crop you are planting from. As a rule, the seed will be stronger and more liable to grow than if shelled early in the season and held in bags. In the flint varieties, Salzer's North Dakota (white), Longfellow, Large Eight-rowed Yellow, and Angel of Midnight and Compton's Early are the leading varieties, in the order named.

To secure good seed in northern sections, if the ears have matured, or come to the glazing stage, select the earliest, smoothest, largest, most compact and well-filled ears. Strip off the most of the husks, leaving a few on to tie the ears together; hang these up in an airy shed or out-house to dry thoroughly before heavy frosts arrive. The land should be well harrowed, then marked in squares 3 feet 8 inches apart each way. If the soil is in proper condition, the grain should begin to peep above the ground in at least a week after planting. A harrow should be run over the field at least once before the corn sprouts are two inches long in the ground. A light harrow or weeder can be used after the corn is above the ground. If properly harrowed, or the cultivator used frequently, very little if any hard work will be required to keep the land clean. If good seed is used, three to five grains to each square is sufficient to plant. The first cultivations should be deeper, going shallower each time, until when the corn is in tassel the cultivator is only allowed to go from one to two inches in depth. The corn should be cut as soon as seven-eighths of the grain is glazed. This applies whether cut for grain or the silo.

If the land is clean and the corn is kept free from weeds, fall wheat can be sown and cultivated in without plowing as soon as the corn is harvested, or the corn crop makes an excellent preparation for oats or barley to follow the next season. In the counties of Essex, Kent, Elgin, Lincoln, Welland and portions of Monck and Wentworth corn can be very profitably grown for the grain, and if cut early and the stalks well cared for, the dried-corn fodder is equal to a crop of hay.

ROBERT THOMPSON.

Lincoln Co., Ont.

GERMINATION TESTS OF CLOVER AND GRASS SEEDS.

Germination tests of grass and clover seeds may conveniently be made between folds of woolen cloth or ordinary blotting paper. The seeds should be kept moist, but not wet, and at a temperature ranging between 68 and 86 degrees F. The time allowed for the germination test of timothy seed is 14 days, and for clover seeds 10 days. One-third of the clover seeds remaining hard and sound at the end of 10 days, should be counted as capable of germination. Clover seeds, in particular, germinate less rapidly directly after being harvested than after having a rest period of a few months.