

Questions in Spring Cultivation and Seeding.

- 1st. What do you regard the most profitable spring grains to sow in your locality?
- 2nd. The best modes of cultivation and seeding?
- 3rd. The quantity of seed of different grains per acre to sow?
- 4th. The varieties that give best satisfaction?

CRAZY CROPS PREFERRED.

1st. We expect to put in about 175 acres this spring in the following order, as we think these the most profitable grains for us:

Forty-five acres of "crazy crop," or oats, barley and spelt in equal quantities, including a small fraction of flax: this will give a large yield, and is an excellent mixture for fattening stock. Twenty acres of oats and twenty acres of bugless peas (peas are next to clover for enriching the soil). For hoe crop, sixty acres of corn, four acres of potatoes, five acres of sugar beets and mangels, four acres of turnips and carrots, besides ten acres of millet.

2nd. When corn stubble is clean we prefer to put in without plowing; cultivate thoroughly, but shallow, for crazy crop, or oats. In this way you can depend upon a good catch of clover. Fall plowing should be cultivated in the same way for the kinds of grain named above. For corn or roots, supply abundance of fertilizers, spread on land fresh from the yard, and after plowing work down with spade or other harrows.

3rd. For crazy crop, not more than one and a half bushels of the mixture per acre (rather less than more) to secure a good catch of clover. The same quantity of oats per acre (rather less than more) if you want a good catch of clover. We prefer two bushels of peas to the acre. The ground should be completely covered to act as a mulch and enrich the land. One bushel of seed corn to four acres, where the corn is intended for the silo. We prefer hills to drills for keeping the land clean.

4th. To my mind, these grains are of about equal value. W. W. Shepherd.
Middlesex Co., Ont.

FEED FOR STOCK THE MAIN CONSIDERATION IN GRAIN GROWING.

To the Editor "Farmer's Advocate":

Sir,—The following is submitted in answer to your enquiries re spring grains and spring seeding. Food for our stock, of course, is the leading consideration, and the heaviest producers of this article are the most profitable grains. Oats easily lead in quantity sown in this locality; considerable barley is also grown. Wheat is not grown so much lately. Personally, I think, and the opinion is becoming quite common, that we have not much room for wheat, excepting perhaps the winter varieties sown for the benefit of the small seeds (clover and grass). The ravages of the pea weevil almost prohibit the growing of peas, the south townships suffering the most from this cause. Incidentally, I might say that co-operation of Ontario farmers, with the use of carbon bisulphide, would do away with this evil. I am in favor of shallow fall plowing, followed perhaps, if conditions warrant it, with surface cultivation; and spring cultivation, for seed-bed, with spring-tooth cultivator or disk. Believe in drilling in the seed, and unless a very rough surface demands a heavy harrow, I simply follow the drill with a light Breed weeder.

The quantity of seed sown should be according to nature of land. A light or impoverished soil would demand more seed. On the other hand, fewer plants are required on a rich soil, as a well-fed plant will spread its roots more and feed wider. If drilled in, an average quantity of seed would be: Oats, 1½ bushels per acre; barley, 2 bushels; wheat, 1½ bushels; peas, 2 to 3 bushels, according to size of grain; rye, 1½ bushels. If sown broadcast, a little more seed in each case.

With regard to variety, the "Siberian" oat has been taking the lead, but is being superseded to some extent by the "Ligowo," which, I think, is a better oat, larger and more plump in grain, and perhaps a heavier cropper. Black barley seems to be the favorite. "Colorado" wheat chiefly sown, though "Harrison Bearded" is coming into favor. Not much peas sown and not much choice. The "Grass" pea, though bug-proof, is not a heavy enough cropper.
Ontario Co., Ont. J. W. Widdifield.

CULTIVATION AND VARIETIES OF SPRING GRAINS.

1—Peas and oats, in the order named, have been the favorite crops for the past few years. In the future we may have to change peas for barley, for the reason that in some localities the pea bug or weevil has made its appearance to some extent the past two seasons.

2—Fall cultivation: Gang plow two or three inches deep as early as possible after the preceding crop is harvested; harrow well, followed by single plowing later on in the fall or in the following spring. In our locality, spring seems

preferable. If plowed in the fall, the spring cultivation is with disk harrow, or cultivator and harrowing; then sowing with seed drill, followed with harrow and roller.

3—Quantities of seed per acre: Small peas, two bushels; oats and barley the same. In my experience these quantities have given the best results. Of course, the fertility of the soil and other conditions have something to do with the quantity of seed.

4—Varieties: Peas—The ordinary small white, commonly known as Golden Vine or Multipliers, have given the best results. Oats—Early Siberian have given the best results, whilst some still cling to the old variety of New Zealand; the Banner still has its advocates. Barley—Russian varieties give the best results, it being grown mostly for feeding purposes; they produce more grain and straw than the old six-rowed variety.
Bruce Co., Ont. Jas. Tolton.

OATS THE SUREST CROP.

In reply to your enquiries: 1st—I consider oats the surest crop to grow here now. We sow oats, barley and peas together—oats three to one. This makes a good crop to thresh and grind for feed, as we feed all we grow. Ensilage corn grows well here and matures well.

2nd—The best mode of cultivation and seeding: Plow well in the fall, having the land in good heart and well drained. Cultivate with disk harrow and harrow well, then sow with drill seeder, making a deep mould.

3rd—The quantity of seed of the different grains per acre: 2½ bushels of 40 pounds per arpent, as this is less than an acre; the same for the mixture. The "Banner" oat gives best satisfaction—the straw is stronger and does not lodge so easily as some of the others.
Chateaugay Co., Que. Robert Ness.

GRAIN MOSTLY GROWN FOR FEED.

The bulk of the spring grain grown in our locality for the last year or two has been oats and barley. Since the pea weevil has become so general the farmers have reluctantly discontinued growing this very important crop. With the exception of a few who will grow the grass pea, peas will be a thing of the past, and it is not expected that they will fill the want on account of their usually small yield. There will be more mixed grain sown this spring than usual. The mixture will be composed of oats, barley, and in some cases grass peas and in others a small percentage of goose wheat. It is sown with the double purpose of providing green fodder in the dry weather, if necessary, and in case of leaving it to mature, furnishing excellent material for grinding. Some very large yields were obtained from mixed grain last year. It is now a number of years since any considerable amount of spring wheat has been sown. Those who do try a small amount are invariably disappointed by results.

The most of our soil is rather heavy clay, and it is always best to plow in the fall, and for the same reason it is best not to go on to the land until it is perfectly dry. Better results are obtained from seeding a little late than from early sowing on wet soil. An effort should be made to cultivate the land until a good seed-bed is obtained. Many are now using three horses on the latest style of cultivators, which do very effective work. The best results are obtained from drilling, in preference to broadcasting. The amount of seed generally sown of barley and oats is from a bushel and three-fourths to two bushels. In the case of mixed grain, two bushels and a half may be sown. If the season is early, lighter sowing answers, but as the season advances more is required. The varieties of oats most in favor are the "Ligowo," "Newmarket," and "Banner." The Odessa barley seems to suit our soil best of the six-rowed varieties.

In sowing the mixed grain, it is best to sow some variety of two-rowed barley, such as the "Sydney" or "Duckbill," and it will ripen about the same time as the oats. Spelt is not much grown yet, but the farmers are becoming interested in it, and are watching for results. The most of the grain grown here is fed on the farm, and its value as hog feed and as an auxiliary to the corn crop for the cattle is the chief consideration.
Perth Co., Ont. Jos. Mountain.

OATS AND BARLEY MOST PROFITABLE—MIXED CROPS APPROVED.

The most profitable spring grains to sow are oats and barley in this locality, peas having largely been a failure the past four or five years. A large percentage of farmers are sowing a mixture of oats, barley and goose wheat for feeding to stock. This mixture gives a much larger yield of weight per acre than if grown in separate plots.

In this locality all lands intended for spring seeding should be plowed in the fall. The first thing to do in the spring, as soon as the land is fit to work, is harrow first, then cultivate with a spade harrow or cultivator. If a cultivator be used, don't go deeper than three inches; harrow again, then sow and roll after sowing. Heavy

clay soil should get a single stroke with harrow after rolling, as it helps the land to retain the moisture and prevents baking. Regarding the quantity of seed per acre, there can be no set quantity, as short, plump oats will run out of the drill much faster than long ones. Then there is the difference in the fertility of the soil to be taken into consideration also. We sow all our grain, except what we keep for seed, of the mixture in the proportion of 5 bushels of oats, 2 bushels barley and 50 pounds goose wheat. We use a shoe drill and set it to sow from 1½ to 1¾ bushels per acre; the oats we sow are short and plump. When oats are sown alone, 1½ bushels per acre; barley, 1½ to 1¾ per acre. Of oats there are many varieties sown in this section, mostly white. The variety that has given us the best satisfaction is the "Cluster" oat. Have had good results also from the "One Thousand" oat. We sow two-rowed and six-rowed barley, and have had good results from both. An early variety of oats should be sown with the mixture. Great care should be taken in cleaning oats for seed—the small kernels should be taken out.
Huron Co., Ont. Robt. J. McMillan.

CENTRAL EXPERIMENTAL FARM SEEDING METHODS AND VARIETIES.

1—Oats: For light soil, Banner, Waverley; for heavy soil, Ligowo, Tartar King. Wheat: Preston, Red Fern, Wellman's Fife. Barley: Mensury (6-rowed), Canadian Thorpe (2-rowed). If sown with a mixed crop, Canadian Thorpe will prove the most satisfactory. Corn: For grain, Longfellow, Compton's Early, Canada White Flint. For ensilage, Selected Leaming, Mammoth Cuban, Early Mastodon.

2—It is most advantageous to sow grain as early as possible in the spring, and for this reason the land should be thoroughly worked the previous autumn. In the spring, cultivate thoroughly with either spring-toothed or ridge-toothed cultivator. This may be done by going over the fields twice, then sow with a seed drill at right angles to the last cultivating. If the land is thoroughly cultivated it will not be necessary to harrow in the spring. Should the soil give evidence of becoming very dry, roll immediately after sowing.

3—The quantity of seed to sow per acre depends upon the size of the grain and also on the character of the soil, a poor soil demanding more than a rich soil. Approximately, however, the following are about the right quantities: Oats: Banner, Waverley, 2 bushels per acre; Ligowo, Tartar King, 1½ bushels per acre. Wheat: 1½ to 1¾ bushels per acre. Barley: Six-rowed, 1½ bushels per acre; two-rowed, 2 bushels per acre.
Ottawa. John Fixter, Farm Foreman.

Spontaneous Combustion from Shredded Corn.

Through rapid oxidation, heat may be generated with such rapidity in vegetable and other substances as to cause them to ignite. Hence the need for care in the storing of improperly-cured fodders in barn mows. This has been one of the chief difficulties in connection with the storage of large quantities of cornstalks, either whole or cut up, even when fairly well cured. The danger is lessened by mixing straw plentifully with the stalks. Mr. S. A. Freeman, a well-known farmer, of Dereham Tp., Ont., had a large and valuable barn burned in that way not long ago. As a warning to others we give his account of the occurrence. He writes us:

"There was not the slightest possibility of the fire starting in any other way than by spontaneous combustion. There were 33 acres of shredded corn in the center of the barn, between two mows of straw built up 35 feet high. This had been very hot ever since it was husked. The day of the fire two of my men were up in the barn putting down feed and bedding for horses and cattle not more than one hour before the fire broke out. Neither of them smoke, nor was there any other person around the place. It was a beautiful day. The cattle were all out about 3 o'clock, and the herdsman had just put in the feed and opened the door to get them in, when he smelled smoke. He ran to the hog barn, thinking it must be there, as I have a furnace in that building, but returned in a minute and found the barn all in a blaze. He had barely time to get out, from the stable below, four horses, two sows and a bull calf; had to rush the calf through the fire and smoke. Mrs. Freeman saw the smoke coming out through the cracks of barn and ran to the large door and looked in and saw the barn one mass of flame. Had the men been up in the mows when it burst into flame, she does not think they could have escaped alive. It would seem as if the barn was filled with gas and went into a flame in an instant. There had been a strong gassy smell in the barn, particularly that day, so much so that the men spoke of it, saying that it was stronger than they had ever noticed before. This was when they were up in mow before the fire. I was away from home at the time the fire started, but got back in time to see my building in ruins. Had never given myself any uneasiness about it, as I did not believe a fire