

## Varieties of Crops and Methods of Cropping.

Farm practice changes with passing years; new varieties of crops come in and old ones are dropped, while invention steadily supplants methods hitherto in use with more economical and better ones. Comparison of experience is always stimulating and helpful. "The Farmer's Advocate" has been at pains to collect a symposium of correspondence from a select list of correspondents, representing a wide range of conditions, dealing with important features of seeding practice as applying to their own farms, and also more generally to the respective counties or vicinities in which they reside. Every subscriber should make it a special point to read their replies.

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R. A. PENHALE, ELGIN CO., ONT.—The conditions in this section have gradually changed from raising barley, wheat, oats, hay (two or more cuttings), and pasture, with beef cattle and wheat occupying the most popular place in our farming operations. This system has largely given way to dairying and hog production, the milk representing the raw material for the butter and cheese factory, condensary, or being used to supply the wants of a near-by city. Corn is raised for the silo, using about a peck of seed to the acre on a well-manured clover sod (we have, after several years' experience, found that the Leaming, Early Mastodon, Mammoth and Cuban are very desirable varieties for this section), followed by oats, sowing from two and one-half to three bushels to the acre, depending somewhat upon the earliness or lateness of the time of seeding. The Banner oat was very popular here, but we are now growing the Twentieth Century, which is a good oat. With the sowing of oats we seed down, by sowing about twelve to fifteen pounds of grass and clover seed mixed, about eight pounds of red clover, two of alsike and five of timothy. A crop of hay is taken off, and, occasionally, a crop of clover seed. This is followed by a covering of manure in preparation for the corn crop to follow, which completes the circle of rotation. Roots are not very generally grown, on account of the great amount of labor required, but successful growers in this section sow about four pounds of seed to the acre, the Yellow Intermediate mangel being most popular. Grass and clover seeding in our own case embraces all of our grain crop, and of those who are adopting a longer rotation it would be safe to say that from a half to two-thirds of the grain crop is seeded, timothy seed, red clover and alsike being a very favorite mixture. Permanent pastures have not become very popular, save our native June grass pastures, of which, for various reasons, usually broken lands are not plowed up. Soiling crops are to a limited extent used, such as oats and peas, mixed, one bushel of peas to two of oats sown to the acre, at intervals of ten days or two weeks, to be followed later in the season by corn. But as the silo is with us now, we find that silage is a very good feed to supplement the shortage of pasture. Alfalfa seems to be meeting with a good deal of success. In our own case, after one year's experience, we are about to double our acreage. In our three-year rotation, which we have been following now for fifteen years, of corn, oats, hay, we have invariably manured for corn. Implements used are larger than formerly, it being quite a general thing to see three horses working a two-furrow plow, cultivator, disk harrow, etc. Four-horse teams are used occasionally, but as yet not generally.

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R. C. McMILLAN, HEBRON, IND., U. S. A.—The crops grown in this part of Indiana, fifty miles south-east of Chicago, are King corn, oats, wheat, rye, timothy and clover. It is a great dairy country. The quantity of seeds sown to the acre are as follows: One bushel of good seed corn will plant from 7 to 10 acres; that is, hilled corn. Oats, 2 to 3 bushels. Oats the last three years have not done well. Land which a few years ago produced 50 to 70 bushels per acre now yields 20 to 35. Wheat, 1 to 1½ bushels; no spring wheat sown. Rye, 1 to 1½ bushels. Roots are not grown to any extent in this locality, but nearly every farm has a silo. Timothy and clover lead here for grasses. Of the former 8 to 10 quarts, and the latter 2 to 6 quarts to the acre, the nurse crops being chiefly wheat and rye, although since farmers have commenced drilling their oats they get good stands of grass by seeding with the oats. About one-third of the total grain crop is seeded annually. Soiling crops, alfalfa and permanent pastures, are very little sown, and with poor success. The prevailing practice as to rotation of crops, and which is most commonly used, is as follows: After breaking sod, corn is planted, corn again the following year, then oats, and sometimes seeded to grass with the oats; but generally wheat or rye follow the oats, then the land is seeded. Since manure spreaders are now found on all of the farms, the most of the manure is used in top-dressing the meadows. As to the kind and sizes of the implements used in seeding, cultivating and harvesting,

I will say that the most modern machinery is used. Eighteen to 24 ft. lever harrows; 12-ft. flexible rollers; gang plows, 12 and 14 in. (one might travel here all day and not see a walking plow); one- and two-row cultivators. There is nothing seen on farms here but three- and four-horse teams. All the machinery has a seat on horse teams. I have been a reader of the "The Farmer's Advocate," and along with the "Breeder's Gazette," they are the best team in America. This farm could not get along very well without them.

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W. E. M., COMPTON CO., P.Q.—To properly understand our methods one should know that a large part of the county has been opened up only during the last three or four decades, and the settlers are lumbermen as well as farmers. A considerable proportion, and in many cases the greater part, of their income is derived from lumbering. Grass is the chief crop, and comprises, perhaps, three-fourths of the cultivated land. Oats is about one-half of the grain crop. The other crops are barley, potatoes, roots, etc. Occasionally one sees a field of corn grown for silage. A great part of the land is clay loam, but there are also large districts of sandy land. Barley is preferred as a nurse crop, but oats and wheat are also used. About one-half of the total grain crop is seeded each year to common red and alsike clovers and timothy. The quantity of timothy in many cases is larger than that of clover, and in a few cases no clover at all is sown. Soiling crops and alfalfa are not grown to any appreciable extent. When land is turned to pasture it is generally sown to timothy, but in a few years the natural grasses find an opportunity to grow and greatly improve the value of the pasture. There is no regular rotation of crops, except in isolated cases. When land is seeded to grass it is allowed to grow as many crops as it will produce. When the annual hay crop becomes very light on a piece of land a coat of manure is spread on to stimulate further growth. It is not uncommon for land to grow eight or ten crops of hay in succession. The first crop grown when a piece of land is broken from grass is either oats, roots, potatoes or corn. The second year it is sown to oats, barley or wheat, and seeded to grass. The only cultivating implements in general use are plows and harrows. The harrows most generally used are either the disk or spring-tooth. These are adapted to either two or three horses. Farm help is very scarce. For the last four or five years good men expect \$30.00 per month for the summer season, and from \$45 to \$50 for the month of haying.

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ROBT. NESS, CHATEAGUAY CO., P.Q.—We have entirely changed our system of cultivation, sowing less and putting it in better shape. The average farmer here, with, say, 150 or 200 acres, sows about 50 acres in all yearly. Most of them ship milk to the cities, and require lots of silage to keep up the winter supply. In that case they sow from 20 to 25 acres of corn, the balance in oats, and a few acres in potatoes, carrots and mangels. We here sow the Banner oat, which seems to do very well; about 2 bushels, of 40 lbs. per bushel, to the arpent, which is rather different from what prevails in Ontario. You have the English acre, and the small bushel of 34 lbs., and require more bushels. In preparing the land for corn we top-dress on the pasture, hauling the manure from the stables direct, and spreading early, before any vegetation takes place, then plowing in the fall; keeping it well drained. About May 20th we cultivate well with double disk harrows, making a fine seed-bed, and sow with the drill seeder three feet apart. As soon as the first weeds appear we begin to cultivate with double and single cultivators, and continue right on until the corn is too high to pass between the rows. The seed we use is the White Pearl, Red Cob and Leaming, mixed together, about one-half bushel per acre. In the fall we plow well, then sow oats and seed with 10 pounds timothy, 4 pounds late clover, 4 pounds early, and 3 pounds alsike per acre. We don't try alfalfa, or any permanent pastures, as they do not succeed here. The general system of rotation is about five years: Hay, two years; pasture, one, and top dress with barnyard manure; then corn; then oats, and sow out with grass seeds. In that way we can keep our land in good heart, and ready to respond to good treatment. As time is money, we want to do all possible in a given time. We use three horses in double disk harrow and drill and broadcast seeder; then with the double and single cultivator we get through quite a lot of work in a day. We do not use any four-horse teams around here, we think three can draw anything we use in the implement line.

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CLIFTON M. BAYNE, BEECHER CO., ONT.—This is about the best of a farming is carried on in the county.

mon grain crops are represented, while areas of varying sizes are devoted to roots. Following are the varieties and quantities sown for the common farm crops: Oats—Waverly, Storm King and Legion, sowing about 2 bush. 1 pk. per acre, on soil that has had about two crops taken off (one spring wheat and one barley) since manuring. Barley—Mandscheuri, sowing about 2 bushels per acre, on rich loamy ground, well worked. Spring Wheat—White Russian and Red Fife, sowing 1 bushel 2 pks. per acre, on rich soil well worked. Red Fife has not been a success. Peas—Mummy, sowing about 2 bushels per acre, on poorish ground, as peas help to build up the land. Very few peas sown in this locality, as the weevil has destroyed them of late years. Buckwheat—Silverhull, sowing about 3 pks. per acre, on dirty ground, as buckwheat smother the weeds. Rape—Dwarf Essex, sowing about 4 lbs. per acre on good ground, well summer-fallowed, till about July 12th. This crop, if put in in good shape, gives fine results; at least this has been our experience. Roots—Half-sugar Mangel, on account of their good-keeping qualities and being easily harvested; also prefer manuring in fall if possible. Turnips—The old Purple-top Swedes are about as good as any. Many kinds have been tried. Work the ground well, and do not sow until about June 21st. Potatoes—Elephant and Empire State for late crop, and Early Fortune for early. Both crops do well if properly cultivated and kept free from bugs. Corn—Not grown to any extent. No silos in this district, but I think they would be a good thing. In clovers and grasses we have Red, Mammoth and Alsike clover; sowing from 6 to 8 lbs. per acre of alsike and 10 to 12 of the others. Timothy sown half and half with red clover for hay, about 3 of timothy to 6 or 7 of clover. For nurse crops spring wheat and barley are used, spring wheat being preferred by many. Alfalfa is not grown in these parts. It seems to be hard to get a catch. Any permanent pasture land is rough ground or wet fields. In rotation, manure is put on for roots, having as much as possible done in the fall. The next year following the roots spring wheat is sown, seeding to clover and timothy. If no catch, then barley, seeding down again, and if no catch, then oats. Some people in this section sow barley after roots with good results, and then sow the same year in fall wheat, top-dressing again with manure if possible. The top-dressing is applied with spreader. Those purchasing new farm machinery are bringing in larger implements than were used a few years ago. However, the styles and sizes vary on the different farms. Most of the grain is drilled in. The sizes of the common implements are: 13-hoed seeders, 15-bull harrow, 7-foot-cut binder, 12-foot rake. Three-horse teams are used on nearly every farm. No four-horse teams are used yet, but I think it will not be long before some will adopt this means of keeping down labor expenses.

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D. A. McNAUGHTON, WELLINGTON CO., ONT.—Oats, peas and barley, with a considerable showing of mixed grain, are the principal spring crops. In oats we have Sensation, Irish White, Lincoln, White Jewell and Bumper King, all doing well. We sow 2 bushels per acre. In barley, Mandscheuri, with 1½ bushels per acre, yields splendidly. Peas have been a partial failure on account of bugs and a green louse. Some say it is the Kansas green-bug. They will be sown considerably again this spring. In grass seed, we consider 4 or 5 lbs. of clover and 3 of timothy to give as good results as a heavier seeding. We sow on fall wheat, barley and oats, wheat and barley preferred, and seed 30 to 40 per cent. of crop. Alfalfa is growing in favor, and does well on our limestone soil. A four-year rotation is generally followed. In cultivating machinery we have spring-tooth cultivator and disk harrows. I prefer the shovel-point stiff-tooth cultivator. Three-horse plows have been tried and discarded on account of the stony condition of the soil and sidehills, but three-horse harrows and cultivating machinery are growing in favor. The disk drill, introduced last year in this vicinity, is doing good work, but is no saver of labor. This applies more particularly to the Township of Puslinch. In mixed grain, a bushel and a half of oats, with ½ a bushel of barley, with a few peas, is generally sown. My practice in spring seeding is to sow oats first, as soon as the ground gets dry enough to work, followed by barley and peas.

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J. B. CUMBERLAND CO., N. S.—Probably hay is the most important crop grown in this part of the county. Only enough barley and oats are raised for home consumption. Of barley, we sow about two bushels to the acre; of oats, about three bushels. Not much wheat is grown, very few having enough to supply themselves with flour. In this part of the country it is rare to see a field of buckwheat. We are subject to very late and very early frosts, therefore no corn is