

is, if light seeds are sown north to south, sow heavy seeds east to west. Then harrow with a light iron or a bush harrow, and roll. The seeds will cost from \$20 to \$25 for the ten acres.

All these grasses are of high feeding value and make the best of hay. Three years from date of sowing the pasture will be established. Until then it will be well to keep stock from being too harsh in their treatment of it. In wet weather shut them off completely, as a new pasture when badly poached is partially destroyed.

Sask.

A. G. B.

Second Prize Answer

EDITOR FARMER'S ADVOCATE:

As to what kind of tame grass to sow and how to sow it there may be some difference of opinion. From my own experience, I could unhesitatingly recommend Western rye grass. Four years ago, I seeded down to rye grass about sixteen acres of land which was pretty well worn. As the rye seed is almost the length of oats and with quite a body I decided to mix thoroughly with the oat seed and sow together. I plowed the land about May 20th to about four inches in depth and seeded with a Massey Harris shoe drill opened almost to its full capacity, and then finished by running a land packer over the field. I harvested forty-five bushels of oats that season and had an even stand of grass on all parts of the field. The following and succeeding season I have cut one and one-half tons per acre of excellent hay. The hay requires to be cut as soon as the bloom has fully gone off.

I have also seeded some land to brome grass, but find that it requires more work to achieve the same result than the rye grass. I have never made a complete success of seeding brome with a nurse crop, and as a consequence, it means the losing of one season's grain crop through this fault. Another objection to the brome is the lightness of the seed which does not run readily through a drill and as a consequence must be sown by hand. I have found the best method with brome has been to plow about the first of June, seed by hand about fourteen pounds per acre and harrow lightly. A thick growth of weeds will come up before fall and should be mown and left to lie and act as a mulch. Another great drawback with this grass, especially on heavy land, is the difficulty in eradicating it after it has made a good sod. Although the rye makes a very firm sod it is quite easily killed by breaking and backsetting and as a hay it is more easily cured than brome.

In the seeding of timothy, one has to go to the expense of a special attachment for a drill to sow it with and from my observation in this part of Manitoba it is much inferior to rye grass as a sod maker.

Without a doubt, for ease in sowing, ability to get a good catch, quality of hay and the making of a sod almost equal to the prairie, the Western rye grass stands without a rival. I live in Western Manitoba and conditions must be much the same in southeast Saskatchewan, so if rye is a success here it should be there.

Avondale Mun. Man.

M. H. RAY.

Advices Using Alfalfa

EDITOR FARMER'S ADVOCATE:

If the land to be used for this purpose is not subject to winds, that is, does not "blow" badly, burn off the stubble, if it is long enough to burn, as early as possible in the spring and harrow to cover and start all weed seeds near the surface. During the first week in June plow four inches deep and smooth down with a drag harrow. If the land blows badly or the stubble is too short to burn, leave as it is until the first week in June, then plow four inches deep and harrow the stubble to the surface, which will assist in preventing the soil from drifting.

As soon as harrowing is completed, sow fifteen pounds Western rye grass seed per acre alone. This is best accomplished with a seeder made for the purpose, but if one is not available, sow by hand on a calm day and harrow well. Keep weeds from going to seed by mowing the field as often as weeds are high enough to cut. If the growth has been very heavy the rake should follow the mower but ordinarily this will not be necessary. Get the best quality of seed of seed obtainable. The seed will cost about \$13.50 plus the freight from Winnipeg or wherever purchased. Western rye grass makes excellent hay and is keenly relished by both horses and cattle. The first crop will be ready to cut about the fifteenth July in the following year and should be cut just as it is coming into bloom.

If possible to conveniently separate one or two acres of the plot in the fall, I would sow this area to alfalfa. Cultivate in the same way as for Western rye grass and sow at the rate of fifteen to twenty pounds of seed per acre and cover lightly. Keep weeds from going to seed by mowing, running the bar four inches from the ground. If the growth is very heavy it should be raked off as the young plants are easily smothered. Get the best and most northerly grown seed obtainable. It can be secured from any reliable seed merchant at about twenty-three cents per pound. Probably the hardest variety is Minnesota Grimm, but the seed cannot be procured in Canada and the next best are Turkestan, Montana and New York. For the alfalfa plot choose

a part of the field where water never lies and that is well drained to a depth of at least four or five feet. Fence in the fall and do not under any consideration pasture the first year. Alfalfa does not stand close pasturing at any time and great care should be taken to prevent excessive tramping or close feeding.

The first crop will be ready to cut in the latter part of June or the first of July following, and in the meantime write to Mr. W. H. Fairfield, Superintendent of the Experimental Farm at Lethbridge, Alberta, for his bulletin on "Alfalfa," which although applying particularly to Southern Alberta, is in the essential parts equally applicable to Saskatchewan.

Sask.

FARMER.

Growing Grasses in Rotation

EDITOR FARMER'S ADVOCATE:

It has been our experience that there is nothing gained sowing grass seed on dirty land. It is generally a poor "catch," and the first crop mostly weeds. It may thicken up for the second crop, but we have come to the conclusion, it is better to get it thick enough from the start. The plan we follow is to summer fallow. From the fifth to the fifteenth of June the land is plowed to a good depth and the packer kept going close after the plow, followed by one or two strokes of the harrow. By leaving it in this condition till it gets a shower, the surface weeds will sprout and may be killed by again harrowing. Then, with the drill, sow two bushels of mixed oats and barley per acre. About harvest time—it depends on the growth the crop has made, do not let it get up too far—turn your stock into it. In the fall the soil should be clean, and an ideal seed bed for wheat, and grass to be sown the following spring.

Sow one and one-half bushels of dry wheat. A disc drill is best. If the seeding is for hay there is no grass relished by horses like timothy. Of this sow eight pounds to the acre. If for pasture after cutting one crop, mix in with the wheat six pounds of brome seed and sow the timothy thinner, six pounds will be quite thick enough. Harrow and pack, and you will be almost sure of a good "catch" of grass along with a good crop of wheat. Owing to the ground being solid it will have a stiff straw which does not smother out the grass as an ordinary loose fallow is almost sure to do. Do not let horses or cattle on it the first fall or spring as they pick the life out of it.

Just a few words in explanation as the plan given above is meant to work in carrying out a rotation: The oats and barley sown come in for feed about the time the pasture the stock have been on is broken up, which is before or during haying time. As soon as the hay is off, they are allowed on the seeding, the brome making good growth all season. Timothy or rye make very little growth after being cut. On the pasture broken up we sow rape and soft turnip seed at the rate of about 1/2 lb. per acre, so that our stock have green feed and a change all the growing season. At the same time the land is resting from grain growing, although we can hardly call it idle.

RUSTICUS.

Handling a Brome Grass Sod

EDITOR FARMER'S ADVOCATE:

I have about ten acres of brome grass sod which I want to break up next spring. How would you advise me to handle it, and what crop would be best on it?

Man.

J. E. E.

If it is intended to take a crop of hay from the field of brome it should be plowed thinly with a breaking plow directly the hay is hauled off. This breaking should be done well, the furrows straight and of an even depth, so that none of the land is "skipped," otherwise there will be trouble from the brome springing up again in patches. After the plowing is finished a heavy land roller should be run over it in the opposite direction from which it was plowed. This will take out all the wrinkles and leave the land smooth, thus hastening the rotting of the sod, which should be the aim, if good results are expected. As soon as the sod has rotted the land should be backed a little deeper than it was plowed. This second plowing should not be delayed too long or young seedlings will start and give trouble. Late that fall or early in the following spring the land should be disc-harrowed, it should then be in excellent shape for seeding.

If the field is in pasture or is not required for hay, the breaking can be done earlier in the spring, say by the beginning of May. This will give more time for the sod to decay.

Either wheat or oats will give good returns after properly broken brome grass sod. The wheat does not usually grow heavy straw, but the crop ripens early and the heads are well filled with plump grain. On soil that is inclined to drift with the wind the root fibers of brome act as an excellent hold-fast, in addition they must naturally provide an abundant supply of plant food, and also assist in retaining moisture as soon as they have decayed sufficiently to form humus.

I have repeatedly attempted to eradicate brome by deep plowing without backsetting, but with poor success. Deep plowing appears simply to turn the plants upside down without injuring the roots, and they grow better than ever. But thin breaking, followed by backsetting, cuts the roots in two and destroys the plants.

S. A. BEDFORD, M. A. C.

Combine the Fairs and Institutes

EDITOR FARMER'S ADVOCATE:

Following the summer and fall fairs in this province and Saskatchewan as our business for the past few years has required us to do, we have to confess to doubt at times as to why some of these so-called "fairs" are held, and what they exist for, primarily, anyway. As many of them are carried on, they seem to have no genuine purpose in existence at all, local institutions of amusement apparently, that open up for business one or two days each year. We do not wish in this letter to offer any criticism whatever of the policy of governments in fostering these institutions, developing them, and aiding them from the public treasury to carry on this work of furnishing mild amusement for the public a day or so annually. A government may be justified, through political reasons, in doing this sort of thing, but we can hardly conceive that it is justified by reasons of public interest. We cannot see that any serious public interest is served at all by the holding of a good number of these local agricultural fairs. The private interests of a few in each district, who happen to have pure-bred live stock, are fairly well served and looked after. They and the attraction element divide the boodle, and the good-natured public has the fun, such as it is. In theory, it is easy to enumerate divers ways in which fair visitors may learn things of practical usefulness. In practice it is a little more difficult for men to pick up anything at the average country fair that will make them better farmers or stockmen, or in any way stimulate them to improve in their profession. It is difficult, because as a general rule there is neither object lesson nor stimulus of any kind there.

So much as a general criticism of existing conditions. Without going into details and making this article too long, this is as brief a review of the general defects of fairs as can be made. Whatever they may have been once, or are now intended to be, many of them are of no more educational value in a district than a threshing bee. Strongly useful in theory, but woefully weak in practice.

How to strengthen them where they are weak and make them better where they are strong—that has puzzled wiser heads than ours, is still puzzling them, we should think. Our own idea is that about half the agricultural societies in Manitoba ought to cease holding fairs altogether, and direct their energies and expend their funds in some other direction in fostering improved agriculture. Enough other ways readily suggest themselves. First, since fairs exist primarily to induce better farming in the district where they are held, why not come direct to the essential thing at once, and instead of frittering money away on the owners of a few bulls, boars and big potatoes, brought in to win prizes, make good farming the thing for which awards are made. Trying to encourage better farming in a neighborhood by dividing up a bunch of money each year among half a dozen or so breeders of pure-bred stock who happen to live around there, is about as direct a way of inducing better farming methods among the majority as is an import tax on necessary commodities in a country a way of increasing the earnings of the masses of the people. There is a good deal of similarity in the two cases. The many, in both instances, are taxed for the benefit of the few, and the few, seem to be the controlling force. There is too much encouraging in our fairs of a handful of men who are trying to make money breeding blooded stock, and too little real genuine endeavor made to encourage the other men who are not in the pure-bred stock business, but are eking out a more common kind of agricultural existence. These are whom, first of all, a properly functioning agricultural society ought to reach. The others, without fear, will manage well enough.

A number of good farming competitions was held during the past year in this province, as most readers of your journal know. So our suggestion is not altogether new. We think, however, it would be better if more prizes were offered, that is, more classes made, than simply the one grand one for the best all round farm and farming system in the district, with second and third awards of course, but one class only. Why not offer prizes for such certain lines of farming as it would be wise to encourage in that neighborhood? Take poultry, for example, that branch of agriculture could be encouraged in every district in the West, and everybody concerned would be the better off for it. Dairying, clover growing, corn production, hogs, or any of the several branches of farming which agricultural experts for years now have been telling us should be a part of farming systems, are other examples. The present method of awarding prizes in the good farming competitions is defective for the reasons that a man doesn't need to be very advanced in his methods to win. So long as he has a good equipment of buildings, with the other things which long residence on a place will produce, wind-breaks, some small fruit trees and a kitchen garden; has his farm fenced and has kept it clear, or nearly clear, of weeds, he stands a good chance of getting in the prize money. On the other hand, a neighbor may have done infinitely more for the introduction of new crops, better seed, better farming methods, and in other ways advanced the cause of better farming, in one or two directions, anyway, but he wouldn't have a chance of getting in anywhere in the prize list, because he was too much of a specialist. The special industries and special crops require attention as much as general farming.