

## Farm.

### Rotation of Crops.

In a recent letter to the "Farmer's Advocate," J. J. Ring, Crystal City, says: "I have been advocating a rotation of crops with grasses for years. Seed the land with the variety of grass best suited to the soil and conditions; let it remain in grass for two or three years, cutting one or two crops of hay, but being sure to pasture one year before breaking up again. Wheat, oats, barley and grass is a good rotation, assuming that the farm is well supplied with live stock and every particle of manure is used." He had found best results from manure by putting it on grass lands direct from the stables. As for summer-fallowing, he did not believe it was necessary in his locality.

### Prices of Grain and Flour.

In an essay on the relation between the prices of bread-grain and those of flour in Russia and Germany, it has been shown by a reference to statistical data that in abundant crop years the price of flour falls relatively more than that of grain. The reason assigned for this fact is, that a surplus of flour is always more difficult to dispose of than a surplus of grain, the latter being not only more easily stored but more readily transported to any part of the world. On the other hand, it is said, on the same authority, that when the grain crops are scanty the price of flour rises more than that of grain. It would seem that, as grain is potential flour, any material disproportion between the price of flour and that of grain would cause a prompt conversion of grain into flour. In some cases, however, the inducement to such conversion might be nullified by the expectation of a further rise in the price of grain later in the crop year, coupled with the fact that in the interim grain can be more advantageously stored than flour.

### Poisoning Gophers.

"The amount of damage done by gophers," says Prof. Ladd, North Dakota, in a bulletin recently issued, "is very great." Their damage is of a two-fold character, in that they not only destroy the growing grain, but throw up little mounds of dirt in the fields to interfere with cutting. They also tramp down and destroy each season a large amount of grain.

The early spring is the breeding season, and gophers are very prolific, sometimes producing as many as ten or eleven young in a single litter; therefore, the destruction of one female gopher at this season means as much as many killed later in the season.

Many complaints are made that strychnine does not seem to destroy many of the gophers in some instances where it has been employed. There may be two reasons for this. The strychnine is not soluble to any great extent, even in hot water, and gophers eat but little food at one time. To successfully destroy these pests, the poison should be present in the food in considerable quantity, and the strychnine should be soluble and in a form or mass acceptable to the animal to be poisoned.

Strychnine is readily soluble in hot acidulated (acid or sour) water, and we recommend the following method for preparation: Bring one quart of vinegar to boiling, add one ounce of strychnine, stir with a stick until fully dissolved, and then add six quarts of hot water. Pour this on twenty pounds of wheat or corn, and allow to stand for about eighteen hours, or until the solution is entirely absorbed, but the mass must be frequently stirred vigorously, so that it will become uniformly saturated with the poison. The grain should now be spread out to dry, where it can not be reached by animals or children, for you have a highly poisonous grain.

Now dissolve six pounds of sugar in six quarts of water, and boil until one gallon remains and then allow to cool. When cold, add one tablespoonful of anis oil (can be had at any drug store). You now have a thick syrup, which should be poured over the nearly dry poisoned grain, and the whole stirred so as to cover each grain with a layer of syrup. Allow the grain to thoroughly dry, stirring so as to prevent its sticking in a mass. The odor of anis oil is very attractive to the gopher, and each kernel should contain enough poison to destroy one gopher. This sugar-coated grain can be used at any time, but great care should be taken to prevent any possible poisoning of birds or animals. A little of this grain buried near each gopher burrow will be pretty sure to attract and destroy its victim.

### Growing Corn.

Although the growing of corn for fodder has not yet become a prominent feature of farming in this country, the success which has lately been attained in a few cases would seem to indicate that some day, perhaps in the not very distant future, large cornfields in Manitoba may be quite common. Now is the season when the provident dairyman or stockman who desires to have a good store of palatable roughage for his cattle next winter should be giving the cornfield some attention. Mr. D. Munroe, Winnipeg, who cut no less than thirty tons per acre from a large area last year, believes in sowing May 12th to 15th, if the weather has become moderately warm, but much later in some districts may be desirable. The most desirable soil is a loam which has been well manured and plowed last fall. Heavy crops, however, have been reaped from new breaking. Good cultivation should be given this spring, as the warmer the soil can be made for sowing the better.

In the south and east, where corn is grown quite extensively for silage, various devices have been invented and used for planting, but for our Western conditions there is nothing to equal the grain drill, closing up a number of the spouts and sowing in rows from three to four feet apart. The quantity of seed to be sown will vary according to the preparation which the land has received, but a half-bushel is the usual amount, some favoring even a little more.

Among the varieties, Salzer's All Gold, Champion White Pearl and North Dakota Yellow stand at the head of the list at Brandon Experimental Farm. Mr. Munroe favors the Longfellow, as it gives a heavier yield than other varieties on his farm, and when planted in good time ripens suffi-

others combined, consequently it is more profitable for her to purchase certain classes of food than to grow them. But in British Columbia it is quite the reverse, and if the latter had the same population as the British Isles, and imported agricultural products for them as now, it would take \$1,600,000,000 annually to pay the bill. These facts are worthy of the most serious consideration, not only by political economists, but more especially by every man who has the interest of the Province at heart and is also desirous of improving his own material welfare. Consumers have more to gain than the producers, and, therefore, the sooner they awake from their lethargy and take an interest in such matters the better.

That it is the duty of the Government of every country, if established, as said to be, for the good of the people, to ordain the cultivation of the earth for the employment, maintenance and education of the people, will be allowed by every person capable of reason and reflection; and, also, that every land owner, by the very act of taking possession, imposes on himself the burden that is inseparably attached to the land, removes it from the Government, and becomes the cultivator in its stead; and, further, that if the utmost benefits are not derived from the cultivation of the earth by the best known means of the present time, it is the duty of every Government to ascertain the fact, search the cause, and to apply the remedy.

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### Alfalfa Clover.

The measure of success which has attended the introduction of alfalfa clover into certain sections of Manitoba and the Territories would appear to



PRODUCTS OF THE WEST.

Grasses, clovers and grains grown in Western Canada, and exhibited by the Immigration Department in Great Britain.

ciently early. However, the conditions in this country are such that each locality must to a great extent determine for itself what is best suited to its needs.

After sowing, the harrow should be used quite freely to destroy weeds as they spring up, and keep the surface loose for the conservation of moisture. Even after the corn is up, and until it is three or four inches high, the harrow may be safely used. Later, intertillage should be vigilantly carried on by means of the horse hoe.

### British Columbia's Need.

During the past seven years I have many a time arraigned the Government of British Columbia for neglecting the agricultural development of that Province. By Government, I mean the one that happened to be in power at the time, as the changes have been so frequent during that period as to emulate the elusive thimble and pea—now you see it, and now you don't.

Facts are said to be stubborn things, and as the last census gave us a population of 175,000, it is only fair to infer that 150,000 of these must be consumers of agricultural products, and taking \$6,000,000 as being the amount at which the importation of such products are valued, it is easy to see that each one is sending away to foreign countries the sum of \$40 for food, all of which should and could easily be raised in the Province. Great Britain is the largest importer of food stuffs in the world, but she is also the largest exporter of manufactured articles, and has probably more money invested in foreign countries than all

justify its more extended trial over a greater area. At Brandon Exp. Farm, Sup't. Bedford has been able to carry it over and produce one ton, 820 pounds hay at the third cutting.

On the Indian Head Experimental Farm, a half-acre was recently examined by a "Farmer's Advocate" representative, in company with Supt. Angus Mackay, and found to be all that could be desired. Although the growth had not really begun elsewhere, every root of the clover showed unmistakable signs of life. This plot was not protected in any extraordinary way, and no more snow had apparently lain upon it than upon the grass land of the farm. Mr. Mackay has considerable hope that this hardy clover may prove a useful addition to the fodder plants of the West.

Although similar success may not be met with by all who give this valuable leguminous plant a trial, we believe a small plot devoted to a test of its ability to withstand the winter may be wisely set apart on hundreds of farms in both Manitoba and the Territories.

It does best on loamy, well drained land, where the subsoil is not so hard as to hinder the penetration of its roots. No nurse crop is necessary; in fact, it is undesirable, and although considerable growth will be made under ordinary circumstances the first year, no cutting should be done, the top being necessary to hold the snow as a protection from the withering winds of winter. From fifteen to twenty pounds seed should be sown to an acre. If you have still a small plot unseeded, and can secure the seed, give it a trial.