a field would be about as follows:—

1st year: Corn or mangels.

2nd year: Barley, seeded down with a mixture of 10 lbs. timothy, 8 lbs. red clover and 2 lbs. alsike per acre—the land being rolled before seeding and again after seeding and then scratched lightly with a harrow after the second rolling.

3rd year: A mixture of timothy and clover hay.

4th year: Chiefly timothy with some alsike.

The double rolling has the effect of compacting the muck, which, generally, is so light and open as to dissipate its moisture rapidly and so interfere with germination. If roots should be used rather than corn, the greatest care is necessary to see that the seeds are put well down into the damp earth and that it is packed firmly around them. Partially germinating the seed, or at least soaking it well, before planting, is likely to help greatly on this mucky land.—J. H. Grisdale.

Distribution of Seed

EDITOR, Farm and Dairy,—By instructions of the Hon. Minister of Agriculture a free distribution of superior sorts of grain and potatoes will be made during the coming winter and spring to Canadian farmers.

The samples of grain for distribution will consist of spring wheat (5 lbs.), white oats (4 lbs.), barley (5 lbs.), and field peas (5 lbs.). These will be sent out from the Central Experimental Farm, Ottawa, by the Dominion Cerealist, who will furnish the necessary application forms.

A distribution of potatoes in samples of about three pounds will be carried on from most of the Experimental Farms, the Central Farm supplying only the Province of Ontario.

All samples will be sent free by mail. Only one sample of grain (and one of potatoes) can be sent to each applicant. As the supply of seed is limited, farmers are advised to apply very early.—J. H. Grisdale, Director, Dominion Experimental Farms.

FARM CHATS

Duty Free

H. Percy Blanchard, Hants Co., N.S.

PARADOXICAL as the statement may seem, the day may come when the "United Farmers of Canada" may yet thank the Government for its duty on farm implements. Among the most interesting chapters of British history is the story of the birth and growth of cooperation in Britain. I need not repeat it. Suffice to point out that it was upon opposition it throve. When the little cooperative retail stores were refused goods by the trade wholesalers, they organized their own wholesale department. When the manufacturers, coerced by the "trade," refused goods, the cooperative started its own factories. To-day they manufacture practically all that the members consume.

In Canada, for a farm implement that retails at $25, it costs, simply to manufacture it, about $12.50. The balance of $12.50 is made up of distribution, advertising, profits of manufacture, wholesaler, retail depots, local agents, and losses from bad credit sales. It is this total the farmer must pay.

The day is not far distant when the "United Farmers of Canada" will manufacture their own implements, grind their own grain, and import and distribute their own staple articles of consumption. The stimulus will probably come from opposition. There is no reason (except to protect the trade) why any present implement factory should refuse, say, half or more of its production at more than "factory" cost plus a fair profit. Were I starting an automobile factory, a concern building engines would sell me engines in quantities at such rates, irrespective of their retail price.

But you can bank on the assurance that the implement factories in Canada won't cut much into their retail prices for the United Farmers. They know the United Farmers can't go to the States to fill their orders, because of the protection duty. But they may not realize that the United Farmers can themselves start implement factories, cut prices in two, and be safe from slaughter price attacks from below the border by the mammoth concerns there trying to smash the "movement" by this very same protective duty.

It is enticing to take up, cooperatively, the manufacture of tractors. However, this implement is in its infancy. There is the locomotive type, like the little "Ford"; the type which carries its own plow rather than drags it; the iron horse type, like the Reindrive tractor. All these have their special merits; and a little time is needed to test them out. The difficulty is that every improvement is being covered by patents, and practically the only way to get the right to manufacture the winner is to buy out the plant to include the patent rights. Probably the start will be made with harrows and plows, then wagons; until finally the more complicated machinery is reached when the "Farmers'" distribution organization is fully developed. At the same time while I am far from defending a tariff on the farmer's raw product, farm implements, I can imagine the day not far distant when we will be thankful for it.

"I regard a mixture as more suitable than pure seedings of the clovers," says E. A. Lods, of the Experimental Department at Macdonald College. "A mixture is a safety valve. One season may favor one of the plants in the mixture, while another season will favor another, and a good crop will be harvested every year. In the case of alfalfa, if orchard grass is seeded along with it, the orchard grass will take the place of the weeds that would otherwise grow. Also the mixture of alfalfa and orchard grass is easier to cure, and the yield will be about the same as would be obtained from pure alfalfa."

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