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## Field Crops

### Fall Cultivation

The eradication of weeds without recourse to summerfallow or the use of hood crops is the problem confronting the farmer in Central Alberta. In this region summerfallow is not practical, particularly in the areas of black loam soil, for the reason that too much nitrogen is liberated by the frequent cultivation with the result that the crops lodge, do not fill properly, nor mature as early as if less growth had been promoted. Hood crops at the present time are not practical on account of the high cost of labor and the relatively large percentage of the farm which would usually have to be included in this class of crop.

Under these conditions, fall-cultivation of stubble land with the object of encouraging the germination of weed seeds offers the best opportunity of controlling and eliminating weeds. Beginning in 1908, the practice of discing immediately behind the binder has frequently been followed, and in consequence land, which in 1907 produced 33 per cent of its total crop as weed seeds, does not now produce more than five per cent of weeds, while no season's crop has been lost in the interval through the use of the summerfallow. The advantage of discing immediately behind the binder, as compared with discing after the grain has been shocked, consists in the fact that 95% of the land can be disced, and the moment the field of grain is at the discing is completed. Such discing has the dual effect of providing a shallow seed bed in which weeds germinate freely, and of preventing the evaporation of moisture from the land newly exposed by the cutting of the crop. By plowing such land as soon as the grain is threshed and following with the packer, a second crop of weeds can be germinated in favorable seasons. The packer does the most effective work if used immediately after the plow, both as to its cultural effect on the land and in conserving moisture, and on heavy black loam soils will leave the land in good condition for germination of weed seeds.

No fall-plowing should be done to a depth of less than six inches, since it should be remembered that fairly deep plowing brings returns far beyond the extra cost of turning the additional depth.

Where the fall plowing of soil is

practiced, it is wise to do this work as early in the season as possible, preferably the latter part of August or early in September. Six horses will handle a two-furrow, 14-inch gang plow in this class of land, and if the furrows are carefully turned to a depth of at least six inches, the land packed, double-diced and drag-harrowed, the packing at least being done daily and the other work within a week of the turning of the sod, this cultivation will be found equivalent to a partial summerfallow and quite sufficient to insure a maximum crop for the black loam areas.—G. H. Hutton, Superintendent Lacombe Experimental Station.

### Put Manure on Land

"The sooner we get it into our heads that we must manure our land the better," said John Arnott, reeve of Shell River municipality, Man., the other day, when three or four of us happened to be talking over farming matters in general. "The crop you get does not all depend on the cultivation you give the land. You know that field of mine where we held the plowing match last year. Well, the part of the field which the boys plowed that day was well turned over and was well cultivated, but the crop growing on the other part of the field beats it by a third. The reason is that this part has been manured while the other has not had any manure and is losing heart."

Later the discussion turned to manure spreaders. "One of the big advantages of the manure spreader," said Mr. Arnott, "is that you can hire ten men to spread with it to one you can hire to spread by hand."—R. D. C.

### Mice Cutting Twine

Q.—Is there any way of treating twine to prevent mice from cutting it while the grain is in the stock?

A.—We know of no treatment for twine to prevent mice from cutting it while the sheaves are in the stock. No doubt some strong smelling substance such as Zenoleum would act as a deterrent.

### Inoculation Benefits Alfalfa

For the fall seeding of alfalfa it is well to remember that this crop differs from most others by having bacteria living in nodules on its roots. Supplying these bacteria to the plants is

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Potato Field on the Farm of Lynn Bloom, Hardisty, Alta.

what is meant by the crop has key bacteria are not only in such small numbers necessary to supply bacteria naturally into the field by slowly that the killed by weeds by the bacteria are. For this reason it is inoculated and he vigorously by going rather than trust these bacteria to the nitrogen of the soil.

There are two methods: 1. by means of inoculation by soil inoculation, expensive, and generally successful inches deep with it is obtained from a field growing scattered on the surface at least 300 to 500 feet. It is then harrowed in being prepared.

In case only a few with numerous birds, it may be possible to scatter the seed which has a glue solution in one gallon water mixed with grain is dirty. A and screened to it may be sown, the sun should be.

Artificial cultivation successfully. The various firms and institutions with their use and are used rather than inoculating contain the bacteria of nodules on the roots.



Where the *Pa* Mixed crop of Tin Mine real estate is at Edmonton, Pa.

clover roots. It tributed either to every seed. Art used according to properly used blow all other inoculation will a good stand and hay crop.

Perennials who cannot ride. Thistle on sight is distributed, and than cure, and when it first appears. Department of which any far exceeding da