How the Harrow Reduces Cultivating Cost

Its Use Described by the United States Department of Agriculture

EDUCE labor cost 40 per cent. A farm practice not now generally employed will do that in cultivating many crops. It doesn't involve buying new implements; it means on many farms. Briefly, it is the us of the weeder or the spike-tooth har-row instead of the usual one-row cultivator in cultivating crops like corn and potatoes. A specialist of the United States Department of Agriculturo describes it:

On well-prepared ground which is free from stones, clods, and trash a two-section harrow or a 12-foot weeder can be used for all but the heaviest cultivating until the crops are 5 to 6 inches high, and will do the work in one-third the time required by a twoimplements the cost of cultivation reduced from 35 per cent to about 20 per cent of the cost of growing the crop, besides releasing valuable farm labor for other work during the busy season. If desired the crops can be first part of the season, in which case there will be little hosing and culti-vating to do during the having. In either case the weeds are killed whole-sale in May instead of a row at a

Not a Severe Treatment.

Driving a weeder or even a harrow over a young growing crop is not as severe treatment as would appear. Most crop plants are tough and heav-ily rooted and are not damaged per-manently either by the harrow or the horses. A few plants are uprooted and there is some tearing of the larger eaves, but this can be entirely offset by seeding a little more heavily than usual. Weeds, on the other hand, are mostly shallow-rooted, and are nearly all destroyed. However, the harrow weeds exceed as inch in height in or der to be affective. Perennial weeds of course, like quack grass, Canada thistle, and milkweed, can not be de-stroyed in this manner after they have become well established. Injury to the stand is avoided by

slanting the teeth of the harrow back wards about 30 degrees, although an excessive shant is undesirable. When a weeder is used the teeth directly over the rows are often removed. Either tool had best be used in the afternoon or on a hot, dry day when period of greatest-danger to the stand is just as the plants are coming through the ground, at which time inrough the ground, as which time and for a few days thereafter harrowing is inadvisable. A short trial will demonstrate whether the indury is greater than the saving, although one should not lose courage too quickly.

Harrow These Crops.

Crops which can be harrowed successfully include corn, potatoes, field beans and peas, sugar beets, sorghum, cane, peanuts, Sudan grass, alfalfa, sweet clover, wheat, barley, oats and rye. The grain crops are harrowed more to remove wild mustard and other weeds than for the sake of cul-tivation, Special harrows are made for broadcast alfalfa.

Tobacco, cabbage, and other trans-planted crops, as well as young grass and clover seedlings and most truck crops, are too delicate for this method

Harrowing can not be expected to give good results unless the surface soil is in good tilth. The object of harrowing is to maintain, not to make, a seed bed. For this reason make, a seed oed. For this reason the practice is most popular on the lighter types of soll, as these are easily prepared and worked. Very good results are secured, however, on heavy clay loam soils, and the prac-tice is rapidly extending as the re-

quirements become more generally

Stiff clay soils, wet soil, and soil on which a hard crust has formed should not be harrowed, as the in-plements must be weighted so hears ly that they will injure the crop.

Harrowing may begin as soon at the crop is planted, and should be repeated after every rain, or as often as the fine little weed aprouts ap-Do not wait until the field is green, but watch the ground closely and catch the weeds as they are gan minating. In case of continued wet

When to Drive Across Rows.
On light soils, as a rule, the harrow is run in the direction of the rows when the crop is in ridges and across the rows or diagonally when ning with the rows is apt to drag out more plants than cross harrowing.

Harrowing need not be discontinued until the crop shows signs of The small grains can be cut tivated with a weeder until they begin to head out, if necessary, while will withstand the harrow until the planes are five to six inches high period is somewhat less.

A light-weight, steel-frame, spike-tooth harrow, with 30 or more half-inch steel teeth per section, is grobably the best tool for general use. light, sandy soil and for cultivating while the crops are very small and very large. Weeders are now made with teeth stiffer and heavier than formerly, so as to work better in heavy ground. Disk harrows, springtooth harrows, and the old-fashi A-shaped wooden harrow are not sub-

A Chat on Corn

AM a strong advocate of com-mercial fertilizer for the cora-crop," says Mr. A. S. Maynard of Kent Co., Ont. "I would not, however, use commercial fertilizers with out manure. The practice on our manure per acre on our corn last and 160 lbs. of complete fertilizer." Speaking of his methods of planting

corn, Mr. Maynard said: "I am going to economize on seed labor this year. I am going to put is the crop with the hoe. The boys will grop five kernels to a hill and cover with the hoe, one-half inch of earth over the kernels. Then I will harrow over the kerness. Then I will harrow continually until I can see the row, then I will cultivate just as close is the rows as I can, running the cultivator both ways. In this way we hope to practically eliminate hand heels later in the season."

Incidentally we might remark that Mr. Maymard secured the Farm and Dairy trophy at the last Ontario Cora Show for the best 10 ears of Flist corn in the show.

Husking Corn in Leeds

R. J. S. Moore does not believe supply of corn for husking. For five years Mr. Moore has been growing Salzer's North Dakota, a flint core, on his farm in Leeds Co., Ont., and he has had it mature every year. Yes, even in 1917. Last season his field of flint corn stood first in the Field Crops Competition east of Toronta Crops Competition east and in the seed fair at Kemptville he had the best 10 ears of corn grown east of Toronto and was fourth in the open class, where he came in co with growers in south westers

"I find that this variety is thorough

eatisfactory for ens "In All Daley recountly. mix dent corn along w two varieties are grown parts of the field and m

> The Dairy Situation United States

OLLOWING is the ter part and recommend far as dairy products far as darly products ed, of the advisory commi-ed, of the advisory commi-ed, of the advisory commi-siting of 23 members fre-of the United States, wi consultation in Washington with the Department of and the Food Administrati

The dairy situation in t more liberal use of milk ducts for the coming su blocking up of exports of milk and other dairy produ we understand, in part by tion in overseas transp gether with the public ag ing the winter relative to city milk supplies, is leading sumulation of stocks in present demands

It is of the utmost imp steady maintenance in prod when one considers that d -like the meximum have but little human food converted into readily avaan food, it is essential the dustries be not only con-stimulated. If this is done tion must see that normalete of products follows.

Recommendations
We recommend, therefore

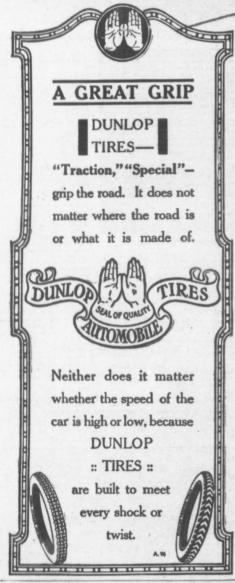
1. The Food Administrat give wide publicity to it policy of recommending to use of milk in order to derstanding which e in the minds of people that product, which is so rich omoting qualities and & to well-being, especially of should be curtailed in use.

2. That a campaign be which will teach the public correct appreciation of the values of dairy products.

We cordially approve tional and demonstration which the Department of I now inaugurating in the of skim milk and butte believe that such work, if a tended this season, will be mental in utilizing large qu highly nutritious food produ

made to secure the adoptic additional stable dairy procheese in the Army and Na tritious food product, capabi

Stabilized Prices for Pr The fundamental impo field milk in human nutriti supply be furnished to the at stabilized prices based cost of production and di with a fair return to produc butor, or manufacturer. approve of the creation of th commissions establish Food Administration to dete cost of producing and di milk in its various forms, with a reasonable return to t ducing or handling the the territories where control tween the parties could no justed through conferences or by the representatives of the interests engaged in the mi



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