

Dry Farming, East and West

(Continued from page 4.)

lumps dead air is imprisoned. The lumps and dead air combined will prevent the rising moisture from the subsoil for next year's crop. Dry farming provides two conditions of moisture control. It prevents loss by evaporation, so that any water that gets back into the atmosphere must be fed to it through the leaves of the growing crops, and it provides facilities for the rapid rise of moisture to the feeding ground of the plant. No matter how fast the surface is made, unless the second of these provisions is made, the crop cannot flourish.

Cultivate Before Plowing.

By thoroughly disk the stubble before it is plowed, this condition is provided. The plow will turn the pulverized soil down and throw the hard lumps up to the surface where they in turn can be reduced by cultivation. From top to bottom of the furrow slices, the soil is therefore broken up and rendered a fit habitation for the roots of the coming crop. What cultivation leaves undone will be finished by the frost. The loose soil will be in a condition to absorb the fall rains. When winter closes down this water is put into cold storage, the expansion due to freezing will complete the job of producing that crumb structure of the soil so favorable to plant development.

To thoroughly break down the structure of the soil that has resulted from the baking process to which it has been subjected this season should be the chief object of fall cultivation. Lumps in the soil are worse than useless. The plant food in them is out of the reach of the rootlets. They take up room and hinder root growth and the movement of soil water. Plant food is absorbed in the root solution. It is dissolved by the thin film of water that surrounds the soil grains and is carried into the roots when this is absorbed. The fewer the lumps the greater is the surface exposed to film water and the more food is dissolved. Some one has estimated that there are three acres of surface exposed in a cubic foot of ordinary loose soil in good tilth, which figures out to about 10,000 square miles in the first six inches of soil on a 160 acre farm. This represents the area exposed to the dissolving action of water. Under given conditions of fertility and moisture supply, the plant food liberated is proportionate to the area exposed. Good tillage may increase the interior surface of the soil on an average sized farm to an amount equal to the area of half a dozen counties.

Good crops are secured, not by depending on wet seasons, but by providing against dry ones. To handle the soil so as to secure good crops, even in a dry year, is dry farming. The average annual precipitation may not change the conditions, but it does not affect the principles involved. Experience has shown that no matter where a man farms, whether it be in Idaho, Southern Alberta, Ontario, or the Maritime Provinces, moisture conservation is one of the first considerations. The principles of dry farming are equally applicable in the semi-arid belt and in the comparatively moist climate of Eastern Canada.

Points on Silo Building

BEFORE beginning to build a silo it is well to know something of the principles of silo construction. By keeping the following points in mind a satisfactory silo will be secured. They apply equally to all cases, no matter what material is used.

The walls must be airtight.
The walls must be smooth inside.
The best type of silo is round.
The roof should be waterproof.
The substances should be substantial enough to stand great pressure.
The cost should be from \$2 to \$5

for each ton of capacity if the total capacity is to exceed 100 tons.

A silo should be placed as near as possible to the place where silage is to be fed and should be on the least exposed side of the barn.

One hundred tons of silage will feed twenty-five head of stock for 200 days.

A silo 14 feet in diameter and 55 feet high will hold 100 tons of silage. Any kind of a good silo is a valuable piece of property on the farm where livestock is to be fed.

An Acre of Alfalfa

WHAT is the value of an acre of alfalfa? Here is what it is valued at in Minnesota, where the cost of production is quite as high as it is in eastern Canada, and where prices for products are somewhat lower, owing to the greater distance from the export market:

It costs about \$12 to cultivate it. At least 60 per cent. of the fertilizer value is returned to the soil when the crop is fed.

A yield of three tons will return \$4.50 if fed to pigs as pasture when the pigs sell for 7 cents a pound.

A similar yield if fed to steers at 6 cents a pound will bring \$42.60.

The same yield fed to cows giving 210 pounds of butter fat at 30 cents a pound will bring \$44.

Farm feeds should be judged by the total nutriment produced on an acre, bearing in mind the cost of production. Alfalfa provides a large amount of nutriment for every kind of stock. Besides this it provides nutriment for the soil, hence increasing land value.



Don't Delay buying a DE LAVAL SEPARATOR a single day longer

IF YOU ARE SELLING CREAM or making butter and have no separator or are using an inferior machine, you are wasting cream every day you delay the purchase of a De Laval.

THERE CAN BE ONLY TWO real reasons for putting off buying a De Laval: either you do not really appreciate how great your loss in dollars and cents actually is or else you do not believe the De Laval Cream Separator will make the savings claimed for it.

IN EITHER CASE THERE IS

one conclusive answer: "Let the local De Laval agent set up a machine for you on your own place and SEE FOR YOURSELF what the De Laval will do."

YOU HAVE NOTHING TO RISK and more than a million other cow owners who have made this test have found they had much to gain.

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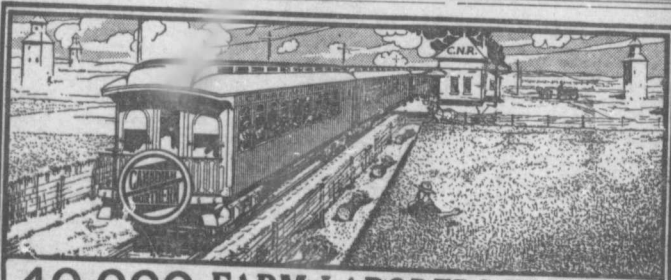
SEE THE NEAREST DE LAVAL agent at ONCE, or if you do not know him write us direct for any desired information.

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\$12.00 TO WINNIPEG

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Leave OTTAWA Central Station 9.30 P.M. Aug. 15th and 29th

THROUGH TRAINS WITH LUNCH COUNTER CARS ATTACHED

EXCURSION DATES:

Aug. 15th and 29th . . . From Brockville, Elgin, Portage du Fort, and Ottawa east to Quebec, including the Ottawa and New York Ry.
Aug. 17th and 31st . . . From Toronto east to Chaffey's Locks and Kingston, also north to Thornhill.
Aug. 19th and Sept. 2nd . . . From Toronto west and south, including the N., St. C. and T. Ry.

DESTINATION TERRITORY.—Tickets one-half cent per mile (minimum 60c) till Sept. 30th, 1916, west of Winnipeg to any station east of Calgary, Edmonton and Tannis, Alta.

RETURN FARE AND LIMIT.—One-half cent per mile (minimum 50c) to Winnipeg on or before Nov. 30th, 1916, plus \$18.00 from Winnipeg to original starting point.

For tickets and leaflet showing number of farm laborers required at each point, also wages paid, apply to nearest C.N.R. Agent, or Gen. Passenger Depts., Toronto, Ont., or Montreal, Que.

CANADIAN NORTHERN ALL THE WAY