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THE average citizen nurses the impression that plowing the soil is one of the simplest of all the menial occupations of the day laborer; that any able bodied person can do all that is needful in turning up the soil for a fresh crop, and do it perfectly too, for all practical purposes. As a matter of fact there is no operation in field husbandry that is so little understood, that means so much, and upon which the fate of the crop is so completely dependent.

The theory and practice of good plowing is worthy of the most patient observation of any man who seeks fortune in return for intelligent labor devoted to the business of raising farm crops. Good plowing does not mean fanciful or mathematically straight lines scratched on the surface of the soil but it means the treatment of a particular soil in such a way that it yields (humanly speaking) the highest possible results in crop returns.

Plowing is probably the oldest as it is the most expensive tillage operation in the economy of farming. Experience and human reasoning have in course of time given us easily understood facts in place of the haphazard methods of the ancients, and the academic faculty need no longer seek to mystify the student with scientific elaborations. Plowing is an open book to any man who has eyes and who cares to make use of them in free co-operation with his own birthright of common sense.

What the plowman has got to determine in handling his own bit of land is the type of mold-board that will best adapt itself to that particular character of soils, how deep the plow share ought to go; is there an excess or deficiency of moisture, or is the condition of the soil just right for plowing? He will also consider whether it is necessary or advisable to plow at all for a given crop.

The main purpose of plowing is the destruction of plant life in weeds or grasses that are unfriendly to the desired crop, the burying of stubble, etc., with the funeral so thoroughly "conducted"

The Fine Art of Tillage

that there is no chance of the trash coming to the surface again as the result of subsequent tillage.

A broad, deep furrow will cover old or obnoxious vegetation

and sticky masses. But this result cannot be obtained with flat-furrow plowing or when the soil is overloaded with moisture.

"Flat-furrow" plowing is the result when the furrow slice lies

compounds that the plant cannot use. The fining of the soil by the plow increases enormously the surface area of the soil particles resulting also in a greatly enlarged feeding area for the roots of the plants.

Deep Plowing.

Other tools than the plow may be used and are used to a very limited extent in starting the seed bed, but next to the spade, there has not yet been found any device that so effectively fills the bill as the plow which at the same time can be multiplied to cover a wide area in one operation without impairing its intensive work at any point. Some of the larger gang plows of the leading makers are most impressive examples of present day methods in tillage and their work is conclusive testimony to the fact that extensive operations in capable hands can be carried out to any extent and still more thoroughly than horse flesh could ever hope to arrive at.

Heavy soil constituents of clays and clay loams may be made to hold more moisture by deep plowing. As rain will penetrate a loose soil more readily than it will a hard compact one, it can be seen that the rough surface of the land after plowing in the fall receives and holds rain and snow precipitate that would simply return to the air from unplowed land.

The little depressions act the part of so many reservoirs that catch the moisture and hold it until it has time to pass into the soil. When the precipitate is taken care of in this way, the wastage of valuable soil by erosion is prevented to a great extent. Many fields that have been cut up into small creeks and gullies by heavy rains and rapid thawing of snow-fall would never have suffered in this way had deep and careful plowing been practised.

The nature of a particular soil will, of course, to a great extent determine the depth to which it ought to be plowed. Heavy soils should be plowed deep, and as a general rule the lighter the soil the less is it needful or advisable

The Man Behind the Plow

We sing about the glories of "The Man Behind the Gun,"

And the books are full of stories of the wonders he has done;

There's something mighty fetching in the flag that's waving high,

That makes us want to holler when the boys go marching by;

But when the shouting's over and the fighting's done, somehow,

We find we're still depending on "The Man Behind the Plow."

We're building mighty cities and we're gaining lofty heights;

We're winning lots of glory and we're setting things to rights;

We're showing all creation how the world's affairs should run,

Future men will gaze and wonder at the things that we have done;

But they'll overlook the feller just the same as we do now,

Who's the whole concern's foundation, that's "The Man Behind the Plow."

—Sam Kiser

better than one that is narrow and shallow. When a heavy weed or green manure crop is to be plowed under, a chain should be used with one end fastened to the beam of the plow and the other to the end of the double-tree; and let it never be forgotten that organic matter decays more rapidly and gives greater results as a natural fertilizer if deeply buried than if just covered or partially covered.

A plow that knows its business pulverizes the soil, leaving it in a crumbly state free from clods

flat on the bottom of the preceding furrow. The plowman who is out to do the best that can be done with the soil will see that the furrow slice is broken to pieces and will not be satisfied till he has an implement that will accomplish this and that leaves nothing in sight except the brown earth—every corn stalk and weed enemy out of sight.

The soil is thus exposed to the action of the air, rain and frost, liberating plant food which would otherwise remain locked up in