

BARN OF MR. THOS. McDONALD, HURON CO., ONT.

THE FARM

A Good Barn Plan

The accompanying illustrations show the plan and barn of Mr. Thos. McDonald, Huron Co., Ont. The convenience of its construction for feeding and caring for stock will be seen at a glance. A barn of this style say 50 feet or 60 feet by 70 feet, would be hard to equal for a hundred acre farm. The framework of a barn of this style and size calls for the upright purline post, with, in the case of a barn sixty feet wide, the centre purline posts about twenty feet apart, and with smaller purlines between them and the corner posts. In the stable below, the purline supports should stand at the head of the horses on one side and at head of the cattle on the other. In this way they occupy but little room. An important point in the construction of this stable is that no high partitions are used, thus allowing good light. Its handiness for feeding roots, silage, etc., will be seen at a glance. The plan of having the driveways in the barn across the passages in the stable below will also be readily appreciated. This makes the space between the head of the stall and the edge of the trench seven feet at one end and six

and a half feet at the other, so that the stable can accommodate both large and small cattle and with perfect regard to their comfort and cleanliness.

Deep vs. Shallow Cultivation

To prevent the evaporation of soil water is undoubtedly the most important function of cultivation. After rains, if the soil is not stirred, the surface bakes, cracks form and moisture escapes rapidly. Cultivation prevents this and by providing a mulch of loose soil retains the moisture for the use of the plants. The absence of weeds, therefore, is no reason for the abandonment of cultivation.

Deep and shallow culture experiments and the experience of all observant corn-growers who have given the subject attention, indicate that for practically all soils adapted to corn, surface cultivation best serves the requirements of the crop.

Differences of from ten to twenty-five bushels per acre in favor of shallow as against deep culture are not uncommon where the two systems have been thoroughly tested under similar conditions.

Surface culture, which means that the implement used shall not disturb the soil to a greater depth than three or four inches, stirs the soil without pruning or injuring the feeding roots of the plants and by forming the necessary mulch, reduces very materially the evaporation of moisture.

It is not to be understood that deep culture accelerates the evaporation of moisture; on the contrary, it probably conserves as much soil water as the shallow method, but the yields of corn from shallow worked fields are so much greater than those obtained under similar climatic and soil conditions from deeply cultivated fields, that the former method is certainly preferable.

The difference is generally attributed to the fact that deep culture injures the roots of the plants. After the corn has attained a height of eighteen inches or two feet, the soil below the first four inches from the surface contains a network of roots. All these are of vital service to the plants and any implement which cuts close and deep among them decreases

the ability of the plants to obtain food, with the effect of checking their full development.

Flat Sowing versus Drilling for Root Crops

I notice in your issue of May the 15th, an article by Mr. Simpson Rennie on root culture, and am surprised to see that so progressive a farmer as Mr. Rennie should advocate the method he does of growing roots. To my mind, the practice of drilling land for roots is not only valuable time and labor wasted, but is in many cases a positive injury to the crop.

I agree with Mr. Rennie that the best place to grow corn or roots is on a clover soil. It should be plowed early in the fall and kept well cultivated until the ground freezes up. A dressing of manure should be applied after plowing and worked into the soil. For this purpose there is no better instrument than the disc, followed by an acme harrow. In the spring, as early as possible, go on with the disc and work the surface of the soil line; then roll and sow your mangel seed at the rate of four or five pounds per acre, using the grain drill, keeping the rows thirty-five inches apart. A shoe drill is preferable for this purpose as the hoe drill leaves two deep a furrow. If a hoe drill must be used, run the weeder after it to level the surface. Two or three days after sowing, go over the ground with the weeder, being careful to thoroughly pulverize the surface, and, if possible, go over it a second time just before the plants come up. We use a twelve-foot weeder mounted on wheels and consider it superior to any other as it can be handled better and pressure may be applied where needed. Of course, a man must use his judgment in working the weeder, the idea being to keep the surface of the ground thoroughly pulverized and prevent a crust forming. This will also destroy weeds.

When roots are sown on drills, the weeder cannot be used satisfactorily, as it will pull out too many plants.

Let us just notice some of the reasons Mr. Rennie gives for preferring to sow on drills.

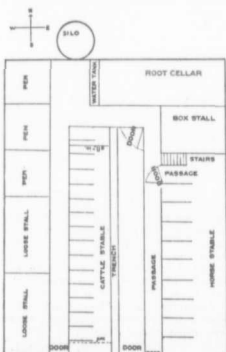
First, it permits earlier cultivation.

Second, it conserves soil moisture.

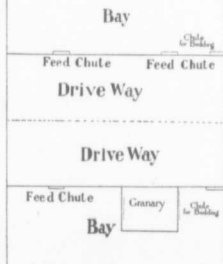
Third, to eradicate weeds.

Fourth, saving of time in hoeing and thinning.

First. This will readily be seen to be a mistake, as with our method



PLAN OF STABLES



PLAN OF BARN