

The Farmer's Advocate

and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866.

VOL. XXXVIII.

LONDON, ONT., AND WINNIPEG, MAN., SEPTEMBER 15, 1903.

No. 582

EDITORIAL.

Laying Up Fertility.

After the heat of harvest and the hurry of fall seeding, one again takes up the work of fall preparation for a succeeding crop. Clear, bright autumnal days spent behind a plow drawn by a capable team develop more character in a man per ten hours than any other of the seasons or farm operations. Something of the eventide of nature seems to imbue those days. With a benign sky, a restfulness observable in all things, and a changing hue in all vegetation, indicating the approach of nature's night, one follows the plow from end to end, and questions the soil and receives its replies just as two friends converse for an hour or two on a summer Sunday evening. It is at such times as these that farmers are born and developed. In the keen enjoyment of turning a clean, straight furrow, all the annoyances and petty losses of the year are forgotten, and plans are laid to coax or cajole the bounties mother earth is delighted to give to those who consistently humor her.

Time spent behind the plow would not be fully improved did one not turn from his airy castle building and mental wanderings to an inquiry into the relationship between his work and the prospective crop, to a recognition of the importance of thoroughly plowing, disking, harrowing, or whatever the work might be. Too long the idea of plowing and cultivating to cover refuse, stubble, kill weeds, or some other very evident reason, has been entertained as the only object in view. In too many cases an enquiry into all the results of cultivation is never made. Seldom is tillage considered in its relation to the food of plants. About the beginning of last century an English farmer named Jethro Tull advanced the principle that tillage, and tillage alone, will create and supply the food of plants, and will in most cases render manure wholly unnecessary. Such a statement, although exaggerated, contains considerable truth, the significance of which might well be remembered when following the plow this fall.

It is a wise provision of nature that plant food or fertility exists in two forms in the land, the available and unavailable. The provision not only economizes fertility, but also deprives those who do not carefully and intelligently cultivate to make it available of its benefits, and rewards with good crops those who by fining the soil liberate its plant food. Something of the importance of finely dividing the soil can be seen by an example a hard lump of clay, such as is found on a well-used road, is about the most unproductive soil one could choose upon which to grow a crop, and similarly all the way down through the different degrees of lumpiness there is a varying degree of productivity in the soil, indicating that plant food is made available by the division of the soil into finer and finer particles. Such being the case, it would appear that the making available of plant food might go on into infinity, since divisibility is infinite. How much then of this fining and dividing of the soil is done at fall plowing? The answer will depend upon several conditions of soil, of implements used, and the manner of using them.

When the objects of plowing are to cover ref-

use vegetable matter, kill weeds, loosen up the subsoil and fine the particles of the soil, an implement that will best perform all these operations at the same time is obviously the best article to use. Unfortunately, the plowing that looks best, that sets up nicely on edge, and presents a beautiful even comb, is not the kind of work that best pulverizes the land nor is the most economical of time. With such plowing the furrow slice must be narrow, and turned with such a gradual movement that it is not crumbled or broken as it is being inverted, and were it not for the action of our severe frosts, it would be much more difficult to work such land up than it is at present. True, land so plowed gives a large amount of soil to be harrowed down, but the furrow slice below is not broken up, and thus retains in an unavailable form the plant food contained in it. A plow with a short mould-board, turning an abrupt furrow, answers the purpose much better, as in the sharp turn the furrow slice is broken and crumbled, thus encouraging the decomposition of sod and the liberation of fertility. Plowing of this sort, however, must be well done. It must not be left too flat nor turned very shallow if it has to lie under the winter's snows and rains before being worked up. Plowing that leaves the furrow slice unbroken and flat on the bottom of the furrow is the worst kind of plowing that can be done. A plan commended where time will permit of its being carried out, is to cover lightly sod, stubble, etc., early in the fall, so that it will decompose, and then to leave the land in narrow drills over winter, so that the frost will pulverize it and separate the particles, thus liberating food for the crop which is to follow.

Such treatment is most rational on land that has borne a deep-feeding crop like potatoes or roots. In such cases the cultivation that is necessary to keep down weeds during summer also liberates the plant food at the surface of soils so treated, while the deep-feeding roots exhaust the available plant food at the lower levels. Under such conditions nothing can be gained by turning the available fertility to the bottom of the furrow and bringing the exhausted soil to the surface, especially if the succeeding crop is to be a shallow feeder, as is generally the case. But land laid up in drills in the fall must be carefully treated. It does not do to lay up high drills, but they should rather be under the average height and not more than eighteen inches apart, in order that the land may the more easily be worked level the following spring. With the mind upon the question as one follows the plow across the fields, the details of the methods of cultivation can easily be arranged, and instead of blindly turning the soil from year to year, often for no particular use, an intelligent, labor-saving course can be pursued.

Australian Farmers Prospecting in Canada.

It seems a long way to come to engage in harvest operations from Australia to Canada, yet a party of twelve Australians from South Victoria came in on the Aorangi, with the object of working through the Canadian harvest and obtaining a knowledge of prevailing conditions. Their intentions are to stay here should a favorable impression be made by their experience.

Securing Strong Sires.

The importance of using only strong, vigorous, thrifty sires in breeding any class of live stock should be always kept in view, as upon the character and condition of the sire very largely depends the quality and thrift of the offspring. Of such vital importance, indeed, is constitutional vigor in maintaining the health and profitable feeding propensities of animals, that it should be a first consideration in selecting a male animal to head the herd or flock, to see that he possesses this quality in a high degree. To this end, if one is to be purchased, it is well to look for and secure him early in the season, before the supply of the best has been picked over, the strongest and most desirable taken and the weaker left.

It is well known by experienced breeders that a male animal is peculiarly liable to be affected in his procreative powers by a change of feed or feeder, and by a change of environment and condition; so much so, indeed, that it is not uncommon to find that one that has been proved a sure-getter has been unfruitful for the first few months after removal to new and strange surroundings and conditions. For this reason, if for no other, therefore, the prospective sire should be secured some months before his services are needed, in order that he may become accustomed to his new home and fare, and become contented and in a thriving and vigorous condition. It is idle to expect the best results in breeding if the sire is fretful and discontented, losing flesh and in a low state of vitality. And to put him to service while in that condition, almost inevitably makes matters worse for him and for his owner, rendering the animal weaker and less sure as a breeder, and his offspring, if any are begotten, correspondingly weak and unsatisfactory, while time is being lost in building up the herd through the uncertainty of his fertility, and the owner and his patrons are kept in doubt and suspense as to his future usefulness.

In breeding both beef and dairy cattle, it has in late years been found most profitable to have the calves born in the fall months, dairy products selling higher as a rule in winter, and calves thriving better with the care received in winter quarters than when exposed to summer heat and the plague of flies. The best cows in pure-bred herds are usually bred to produce early in the fall, as among their offspring the show calves are most likely to be found, and these receive the best treatment to develop the most desirable qualities, whether for beef or for dairy purposes. In selecting a bull calf, therefore, it would appear to be wise to choose early, from the early crop, for the dual reason that they are generally from the best dams, and are of the best age for service at the end of the year, when their services are most required, or when they are from fifteen to sixteen months old, which is as early as they should be allowed to serve. And the same principle applies equally to other classes of stock. If a ram lamb is to be used, an early lamb is preferable, because of his added strength, and if he is to be purchased it is better to secure him early and have him acclimated, accustomed to his new surroundings, and in a thriving condition, as he will be more likely to be sure and to sire strong offspring than if