

Don't be in a hurry to get your stock out to grass in the spring, under the impression that all the feed that is eaten now is just so much waste. What more forlorn sight can be imagined than that of a herd of lean, hungry cattle, and a few thin sheep with their wool hanging in shreds from their backs, out in the middle of some bleak, wind-swept pasture field, trying to fill themselves with last year's frozen, half rotten grass? Yet how often in driving through the country at this time of year is this sad sight presented to our eyes. No matter how short of feed a man is, he should let nothing tempt him to turn the stock out to grass before there is sufficient nutriment in it to support them. If he cannot afford to buy feed, let him sell some of the animals, and with the money thus obtained buy feed for those which are left. For the little that is gained by turning out early, much more will be lost in flesh, milk and wool, not only at present, but also in the value of the pasture later on in the summer. There is little growth and less nourishment in the pasture at this time of the year; while the animals, in their vain endeavor to get something to stay their cravings of hunger, tear up the grass, roots and all, thus permanently destroying the pasture, and at no gain to themselves, but rather a loss, for this wet, frozen grass is liable to cause disease, and in not a few cases death. The young shoots depend upon the plant food which was stored up in the roots of the grasses the previous fall for their start in the spring; but as soon as the plant has attained any size it obtains a large amount of its nourishment from the air, while the roots gain strength and push out in all directions and down into the subsoil in search of food and moisture, and are thus enabled to withstand the continual cropping of the grazing season. But if the stock nip off the shoots as fast as they appear in the spring, the plant soon becomes stunted, the roots are short and sickly, so that when the dry months come the pasture has no substance and is soon all burned up.

In the spring, before the ground dries, stock will do much damage to pasture land by tramping it into holes, and if the land is at all of a clayey nature it will be puddled so that when the dry weather comes it will bake so hard that nothing will grow, and it may, perhaps, take years to undo the harm thus occasioned.

"Whatever is worth doing at all is worth doing well" is an old adage, but just as true of to-day as of times gone by, and, perhaps, in no business is the truth of this precept more apparent than in that of the farmer. The season for the preparation of the soil is so short that there is a great temptation to hurry over the work, and to say that "it will do," and let the field go; but careless work in putting in the seed is sure to bring its own reward of poor crops at harvest. The nearer the soil of our fields approaches that of a garden the larger will be the return which we will receive from the land. The soil should not only be turned over, but well pulverized, so that every seed will count; if this was done, one-half the amount of seed that is now needed would give abundant crops. But these results cannot be expected unless, in the first place, the seed is very carefully selected and tested, so that we know that every grain will grow if the conditions are favorable; then, in the second place, do all that can be done to render the conditions favorable. Different soils require different methods of treatment, but they might all be summed up in the one general rule, that if you would have good crops you must work the land thoroughly. Who has not seen grain sown on land so lumpy that it was quite impossible to cover the seed properly, or to expect that which was covered to force its way through the heavy clods? These fields would have well repaid the extra work of rolling, harrowing and cultivating until the soil was pulverized sufficiently to form a fine seed bed.

In plowing, the depth will depend upon the nature of the soil, time of the year, and the variety of crops; but, as a general rule, the deeper a field is plowed the better the crop. But where the surface soil rests upon a poorer subsoil, the plowing should be shallower, so that the best soil will not be buried under the poorer. In any case, only a thin layer of the subsoil should be brought to the surface at a time, so that the raw material may be reduced to an available condition by frosts and rains before a crop is grown. Therefore, deep plowing is not advisable in the spring, because the warm, prepared soil would be turned under, and its place taken by the raw, cold subsoil. Also, deep plowing in the spring leaves the land in a very loose condition, and not firm enough to form a good seed bed, and liable, for this reason, to suffer from drought in the dry months.

It will be readily seen that the better practice on land which has been plowed in the fall is not to turn the soil with a plow, but to cultivate by stirring the soil thoroughly, so that the warm earth, which is left in the best possible form by the moldering action of the winter's frosts, will remain near the surface ready for the use of the young plant, thus giving an earlier and stronger start to the crop. As less time is consumed by this method of doing the work, the seeding will be finished much earlier in the spring, which is another very important advantage to be gained, for, one year with another, crops which are sown early are sure to give the best returns. The harrow pulverizes the soil, breaks the lumps, and levels the field. Where it is necessary to plow land in the spring, this implement should follow immediately after the plow, for when the soil is turned it begins to dry rapidly, and if at all adhesive dries up into clods, which are almost impossible to break up; but where the land is harrowed at once, the moist soil is easily and quickly reduced to a fine tilth, and if well worked will not dry out, even if the sowing is delayed, for the fine-surface acts as mulch. Besides being used in the preparation of the seed bed, the harrows are very useful in loosening up the soil where the surface has become encrusted, and thus prevents undue evaporation, mellows the surface, and destroys weeds. For instance, the harrow is used with advantage in the spring on fall wheat, on corn, when from two to four inches high; on potatoes as they are coming through the soil; also on newly sown grains where the surface has been crusted by heavy rains, while old pastures will often be greatly benefitted by a harrowing in the spring.

The roller pulverizes the soil by breaking up the clods and lumps which may be left on the field; compresses the moist surface soil close enough to resist and to retain a requisite amount of moisture within reach of the plant, thus placing it in the best possible condition for growth; renders more compact soils which are too loose and porous; levels and smoothes the surface, thus enabling harvesting machinery to be driven over the field with much less labor. Land should never be rolled when wet, for more harm will be done than years of good management will repair. An exception to this rule is where a light and porous soil is rolled to make it more compact, which can be more easily accomplished when the land is damp. Grain should be rolled as soon as sown, which will help to cover and press the soil tightly around it, thus retaining the moisture. Clover and fall wheat should be rolled as soon as the land is dry enough to bear the team. The roller will press the roots which have been partially heaved by the frost back into the earth, thus giving them a better chance of starting.

Some people find it hard to understand why land is rolled to keep the moisture in, and at the same time cultivation is recommended to keep the land loose and prevent evaporation. These two apparently contradictory statements will appear quite clear when the reasons for the operations are perfectly understood. The soil is full of minute spaces, which form what are called the capillary tubes, and they serve to pump and conduct moisture from the subsoil to the surface, just as a sponge will absorb and fill with moisture when set in a shallow dish of water. If the land is too hard and firm, the tubes are filled up and cannot act; on the other hand, after the soil has been plowed these tubes are broken off, so that they cannot pump water within reach of the roots of the young plants, while the very loose condition of soil gives too free access of air. In rowing and rolling the land is rendered firm, thus restoring the condition necessary for the action of the capillary tubes, and moisture is brought to the surface within reach of the young plant.

In cultivating to prevent drought, the water is brought to within a few inches of the soil by the capillary tubes, and the freshly cultivated soil acts as a mulch and holds the moisture, preventing evaporation. In the sowing of small seeds it is not practical to give this surface cultivation, because the seeds are so near the surface; but in case of those sown deeper, an almost perfect treatment would be to roll the land after sowing, and then harrow the surface lightly. Here you would have the action of the capillary tubes broken at the surface by the cultivator, which prevents evaporation, and therefore the water would be deposited just where it is needed for the young plant.

The value of the harrow and roller in preparing the soil is often slighted by the farmer, who forgets that a good harrowing constitutes one-half the farming, and also another old saying, but no less true as regards the results, "that tillage is manure." One acre well prepared will often produce more than two acres which have only been run over. The great secret of the success of our best farmers is that they work their farms thoroughly with good implements. The crops on these farms neither burn up in dry weather or drown out in wet. More thorough work in seeding time will be found one of the best remedies for the present wide-spread depression.

Poland-China.

The Poland-China is a distinctively American hog, having originated in the rich valley of the Miami, in the counties of Butler and Warren, in the south-western part of Ohio. The question is often heard, What is the origin of this large breed of hogs which have of late years become so popular in the Western States? but nothing very definite or satisfactory can be given in answer. Little is known regarding their formation, and that little is involved in obscurity.

It is altogether certain that a number of breeds have been used in this work, as Butler and Warren counties were early noted for their different breeds of hogs. The great uncertainty as to their origin is shown by the following different names under which they have been known:—Butler County, Warren County, Dick's Creek, Gregory Creek, Magie, Miami Valley, Great Western, Shaker, Union Village, Moore, Poland, Poland and China. The name finally adopted in 1872 by the Swine Breeders' Convention for this many-named breed was the Poland-China, and thus put an end to the discussion.

Hon. J. M. Millikin, of Butler county, Ohio, in a prize essay upon this breed, says:—

"No counties of the United States have produced so many hogs of a superior quality as the counties of Butler and Warren. The first information of a reliable character gives us to understand that as early as 1820 improved breeds were obtained for use upon the common hog of the county; among others the Poland and Byefield, which were exceedingly large hogs of great length, coarse bone and deficient in fattening qualities. Afterwards more desirable qualities were sought, and this strain of hogs underwent valuable modification by being bred with a more esteemed breed, the Big China; they possessed many important qualities which were lacking in the other breeds. Afterwards the Irish Grazer was used, which gave them firmness of bone and good fattening qualities. The Berkshires were also used about the same time. The result of these crosses was highly advantageous in the formation of a hog which combined in itself all the most desirable qualities. They have been bred so long with good judgment, that they may be confidently relied upon as possessing such an identity and fixity of character as a distinct breed, that, although of recent origin, they may be regarded as thoroughly and permanently established."

The foundation appears to have been the Poland or, as some say, the Russian and the Byefield, both large, whitish pigs, which were used on the common stock about 1820. Little is known about the above two breeds. Some authorities say that the Poland or Podolian was imported from Poland by emigrants; others that they were so called from a man of that name, and therefore were no new breed.

The Byefields were a large, white pig with sandy spots, supposed to have come from Africa, but were first heard of at Newbury, Mass.

The Big China was a strain of the Chinese, and this cross was useful in reducing the size of the bone and for imparting a readiness to fatten and quietness of disposition. Later the Irish Grazer and also the Bedford cross was introduced. The Berkshires were used about 1835. They were useful in giving strength to the limbs, improved symmetry, and the dark color. It is known that for some years previous, breeders in Butler and Warren counties put upon their advertising cards that the Poland-China were a composition of Poland, Big China, Byefield and Irish Grazer, and this was generally accepted as an undisputed fact by the breeders of the Miami Valley.

The following is taken from the report of the committee of 1872, which has been already quoted:

"We have a breed, thoroughly established, of fixed characteristics, of fine style, and of unquestioned good qualities and character. The best specimens have good length, short legs, deep sides, flanking down well on the leg, very broad, full, square hams and shoulders; are hardy, vigorous and prolific, and, when fat, are perfect models all over, pre-eminently combining the excellence of both large and small breeds."

There are five associations guarding the interests of this breed:—The Central Poland-China Association, organized in 1880, at Indianapolis; the Ohio Poland-China Record Co., established at Dayton, Ohio, in 1878; also the National, North, Western and the Standard.

They are perhaps the most popular breed in the United States, and this is especially true of the central and western corn states. They are a large breed, docile, easily fattened, as a corn-eater and fat-producer are unexcelled, their flesh is of good quality, and they give a good return for the food fed to them.

DETAILED DESCRIPTION.

Head short, broad between the eyes; face slightly disked; ear small, thin, soft, pointing forward, the forward half drooping; wide, deep, short neck; jowl large and firm, carrying fullness well back; long, strong, well sprung ribs; back broad, even, slightly arched, medium length; sides full, firm and deep; ham broad, full, long and running well down to the back; coat fine, straight, smooth, laying close to body; color black, with a very few small, clean, white spots. Vigorous and graceful action, quiet and gentle in disposition.