

Agriculture.

Indian Corn Culture.

Indian corn will grow on any kind of soil, but if the farmer wishes a good crop he must cultivate good land. No man has ever yet become rich raising corn on poor land; and all who have had any experience in the business well know that poor land requires as much, if not more, labor to grow a crop of corn than rich land; hence the advantage of good ground. The best soils for its growth are those of a deep, rich, warm, mellow and porous nature, permeable to the air, heat and moisture. Such soils will allow the roots of the corn to extend freely, both in depth and sideways, a thing requisite for large and fine crops. Our river bottoms, and sandy and loamy grounds, which possess these properties in the highest degree, are everywhere regarded as the best soil we have for corn. Corn is indeed a very hardy plant, and will grow almost anywhere, but does not yield profitable crops to the farmer unless planted in good land, and no farmer need expect to raise much corn unless he has good, warm, rich soil.

Corn planted upon stiff clays, or hard, gravelly ground, generally proves poor, or a total failure, from the simple fact that such soils are so compact and tough as to exclude the air, the porousness and warmth necessary for its growth. The preparation of the ground for planting the crop is a very important item, and we are of the opinion that more depends on the condition of the ground when ready to plant than upon the after-culture of the growing crop. Late fall or winter plowing, especially if the ground is in grass or clover, has many advantages commendable to farmers.

If grass land be plowed late in autumn or early in the winter, the grass or clover turned down would become well rotted, and so much earlier than it would under spring plowing that it enriches the soil, and makes it mellow, and also makes the crop the ensuing spring more easily cultivated. Winter plowing also exposes the cut-worm, wire-worm and heat-worm in their embryo state to the action of the frosts and chilly blasts of the winter months, destroying them. Early spring plowing is also very useful in an overloose or too porous soil, as the early rains will then pack and settle the ground prior to planting, thus putting the ground in a better condition for the corn to take root than it would otherwise have been.

It is not necessary to plow stubble or fallow ground but once, and that after the soil becomes warm in the spring, and just before planting the crop. The selection of good seed is a very important item, and the best way to do this is to go into a field of ripe corn and choose the largest and best ears from the stalks that bear the greatest number of well developed ears, and then plant only that which grows in the middle or central portion of the cob. It would be well for farmers to change their seed every few years, as corn, like all other cereal grains, deteriorates if grown on the same soil and from the same seed for a number of years in succession. In procuring new seed, it is advisable for farmers to get that which is grown in the northern climes, as it ripens early and acquires increased vigor when grown in a warmer and more congenial climate, while seed brought from more southern latitudes will not only ripen later, but require many successive plantings before it will yield in a colder region. The time of planting corn varies considerably from the extreme Northern States to those bordering upon the Gulf of Mexico. In the Northern and Middle States the time of planting is from the middle of April to the first of June, while in the Southern States the time of planting ranges from the first of February to the middle of April.

The depth which corn should be planted varies from two to six inches, according to the nature of the soil and the time it is planted. If planted early, it should be covered shallow; if late, deeper, as late planted corn, especially if the weather is dry and hot, will not sprout if put in too shallow. The width which corn should be planted is from three to four feet each way, and the furrows should run north and south, in order that each row may be fully exposed to the sun during the day. About three plants to the hill, in good ground, is as many as will grow to advantage; but on poor soils, two are sufficient, and then the rows must not be nearer than four feet apart. After it gets up, the whole art of raising good corn—provided it is a favorable season—depends upon keeping the crop free from weeds, and the soil loose around the roots until it shades the ground, and the blossoms appear. After this no more work is required, unless it be to go

through it and cut out the few weeds that may spring up while the crop is maturing. To cultivate corn rightly, harrows, plows, hoes, cultivators must be as freely used as the surface of the ground and the nature of the season may require. It should be worked freely when the ground is dry, but more especially when it is very dry, as the ground then requires to be kept very loose so as to absorb and retain the dews of the night and the moisture of the air more readily—an experiment often tried, and always with good results.

The corn crop requires more attention from the time it gets up until it is tasseled than any other crop grown in the Northern and Middle States, and it so happens that this work can be mostly done at times when but little other work demands the attention of the farmer. Ground should be well manured before it is broken, and after the crop is planted it would be well to put about a shovelful, or even less, of rich compost, composed of wood ashes, lime, salt, plaster, &c., on each hill. Fresh and naturally rich soil will grow good corn without manuring, but if cultivated year after year, fertilizers must be resorted to, or its strength will become exhausted. In the Western States, where poor land is scarcely known, manuring land is looked on as almost useless, and to save the trouble of hauling the manure out on the farm, a stable is sometimes moved; or, if the farmer does not like the trouble of tearing down and rebuilding his stable, he carts its contents to a neighboring stream perhaps, and dumps it over the bank to be swept away by high waters. But, apart from a country which needs no artificial means to make it produce, no man need have any fears of applying manure. Corn is a very gross and rapid eater and grower, and when ground is not naturally rich enough, too much praise can not be given to artificial fertilizers. To those whose ground is rich enough we would say, manure anyhow; it will be no disadvantage to your soil. Without protracting this article to a greater length, we will not go beyond the preparation of the ground for planting, and the cultivation of the crop, which has been briefly described herein but will kindly submit the subject to the calm consideration of all who may be in any way interested in the cultivation of so useful and valuable a grain. —Ohio Farmer.

Muck on Sandy Soils.

The value of muck when applied to heavy soils is well known, but it is little known that to the poorest sandy soil an additional application of it will prove very serviceable and the expense of the carting prove a good investment. The reasonableness of this will be apparent from a moment's consideration of the subject. We see at once the great want in such a soil is a heavy, tenacious clay to give it some solidity, and to counteract its rapid impoverishment from the fertilizing elements passing at once through the too porous soil. Some soils are so extremely porous that any attempt to fertilize them by tillage would be like the child's endeavor to fill a sieve with water. Muck, though it is inferior to clay for a permanent improvement of such soil, may be applied with very good effect. As a vegetable matter it is more retentive of moisture and all elements of fertility than a sandy soil can be, and a few inches deep applied to such soil, though not causing a permanent improvement for it for culture, will enable it to give a remunerative crop of yellow or white turnips, or of potatoes, and by sowing white clover and suitable grass seeds it may be made a good sheep pasture. A writer in the *Country Gentleman* says:—

Much has been said about underdrainage, and its value is fully established. But no underdrainage is so good as that done by nature, where she has supplied a deep, porous subsoil, for then every foot of ground is sure of complete drainage. Unfortunately, where nature has provided this subsoil she has usually placed on the surface a sandy or gravelly soil, which is generally considered of little value, and its elements of fertility are constantly washing out, and it will not retain manures; therefore, they are much neglected, while the heavier soil has been expensively underdrained or cultivated under the curse of stagnant water. Knowing the great value of thorough underdrainage, it appeared to me that the leachy propensity of the porous soils could be destroyed by the application of some retaining substance, and thus obtain complete drainage at less expense and have an easier soil to cultivate. With this idea, about one-third of an acre of light sandy soil, so light as to be considered waste land, was mucked from three to four inches deep, and this was thoroughly worked into the soil. This was done year before

last. Last year it bore a good crop of potatoes with common manuring. This year it is bearing the heaviest and best corn on the farm, with no more manure than the other fields. This proves, to my satisfaction, that for many crops it is better to improve the surface soil of natural drained land than to knock the bottom out of a water-soaked clay soil, which never can be made as warm and dry in the spring, or so easy to cultivate, as sandy soil well dressed with a retaining substance, such as muck, clay or decaying vegetable matter.

Farming in England.

Mr. Mechi gives a gloomy account of the present condition of the English farmer. The last two or three seasons, he tells us, have been not merely unsatisfactory, but positively disastrous. The crops have been bad, the prices obtainable for what grain it has been possible to get into the granary have been low, and there has been a great deal of disease among cattle and sheep. The result is that farms are "going a-begging" for want of tenants, and that landlords have been obliged to considerably reduce the rents of all but the very best class of holdings. It may here be observed that a similar state of things exists in some of the most famous of the agricultural districts of Scotland. Even in the Lothians an unusual number of farms have been changing hands of late, the tenants being quite unable to make up a profitable balance sheet. Landlords had for years been increasing their rents, and it would scarcely be just to blame them for adopting that policy, for they could always be sure of having a crowd of competitors for any farm that might fall vacant. This inflation of rents has, of course, contributed to the depression of which so much is heard on both sides of the Tweed; and in Scotland as in England the owners of the soil are recognizing the necessity of relieving the pressure upon occupiers so far as rent is concerned. Mr. Mechi seems to maintain that bad farming is to some extent responsible for the depressed state of agriculture. He could point, he says, to many farms, his own included, where the capital employed is from three to five times as great as the average run of holdings, and he contends that if all England were farmed at the high level of places like Tiptree "enough and more than enough food for our population could be produced." He is probably right; but, as he himself suggests, capital will eye agriculture with suspicion and distrust until landlords come to see that it is to their interest to encourage investments in the soil by "liberal and secure covenants drawn up on true commercial principles." —*Manchester Guardian*.

Hungarian Grass.

The continued inquiry as to the proper manner and time to sow this crop shows that it is still in favor, and increasing in area sown. One of the most important items and one of the oftenest violated, is not to sow it too soon; not until the middle of May, or until settled warm weather and all danger of frost is over. It is very tender, and a sharp frost after it has sprouted will kill it effectually; it is of very slow growth after it first starts, and if not encouraged to a more rapid growth by a warm sun, will fail to maintain itself in the struggle with weeds, and the crop will thus be much injured if not entirely lost. In selecting a time for planting it is well to have some reference to the time of harvesting, which may be in seventy days' growth; if sown too soon after corn planting it will need cutting at a time when the oat crop needs our attention. We have always found the middle of May to suit, both as to planting and harvest. Some have succeeded on a stiff soil, but our best results have always been on a well plowed, well manured corn field of the previous year. No crop will better pay for a careful preparation of the ground, and no one so quickly responds to the proper kind of manure. To be efficient the manure must be quick and prompt in its action so as to force a rapid growth before dry weather comes on. Guano and other ammoniacal manures will on most soils produce the best results, but in many cases an ordinary superphosphate has done well. Much of course depends upon the amount of rain to dissolve the manure and carry it to the roots of the plants. We find it safest to cover the seed with a light harrow, but have had good crops by simply rolling after sowing. It should be cut when the earlier heads show signs of the formation of seed by turning dim. A few days at this time will detract much from the value of the crop, and hence the importance of having no other crop to interfere with the horses and teams. —*Farmer*.