

Field Department.

FALL PLOWING.

Farmers set your teams to work at fall plowing early, and keep on steadily all the autumn, so long as an acre remains that is going to be used for spring crops the coming year. The advantages of having the soil well exposed to the frosts of winter, so as to become mellowed by its action are now understood. We want our spring crops got in early, and in land that is capable of absorbing a large store of the early and fertilizing spring rain, so that the crops sown may get a good start and be well established before the dry weather of May comes. It is a noticeable fact that those farmers who cultivate their lands well and early get the best returns from it. Another fact not to be overlooked is, that most of the insect enemies of our crops pass the winter in the soil at no great depth, and by turning over the soil we expose a large portion of them to destruction from the caprices of the weather.

SEEDING DOWN TO GRASS.

There is much complaint this year of the failure of the spring sown grass seeds to catch well. This is mainly due to the exceeding dryness of the season for a month or six weeks following the spring seeding. We have seen many fields where the failure was so complete that practically nothing can be done short of turning the stubble under with the plow and re-seeding next spring on another grain crop. Others, again, especially those seeded down early and with a liberal supply, have enough grass on them to be worth saving for next year's hay crop. On some of these the grass has taken in a patchy manner, leaving blanks here and there. These may be greatly improved by sowing timothy seed after the fall rains commence, say from the 20th Sept. to 15th Oct. Sow on the bare patches, and cover it lightly, either with a garden rake or bush harrow. So great is the tendency of our climate now to become drouthy and uncertain during the latter part of spring, that the better class of farmers and stock breeders are having recourse to sowing timothy in the fall, either on winter wheat immediately after seeding, or on land that has borne a crop of grain the same season. In this case the stubble is well harrowed immediately after harvest to start the weed seeds in it; afterwards it is dressed with a light coat of well composed manure, and turned under with a gang plow. The timothy is then liberally sown in September, and makes enough growth the same fall to insure a fair crop of grass the following season. Clover seed is then sown upon the land with the earliest warm days in spring. The timothy will stand the winter as well as winter wheat does. Clover, however, will not do so when sown so late, and therefore must be sown in spring. We believe that if both clover and timothy were sown together about the middle of August on stubble land turned under, the clover would come forward enough to get such a foothold of the soil as to enable it to resist the effects of frost as well as that sown amongst the grain in spring. Much would, however, depend upon the season, for with a dry August, the seed might fail entirely. There is no doubt, however, that under our present plan of seeding down grass in spring on grain crops, the plants can make but little headway until after the grain is harvested. It will soon become a necessity to obtain good, heavy crops of grass without the intervention of any stolen crop between the seed-sowing and the cutting of the grass.

CAUTION, WILD OATS.

One farmer in London Township has thrashed 170 bushels of fall wheat and has one quarter

wild oats. This was sown on a summer fallow. Be careful about procuring seed. If you ever see one wild oat on your farm, be sure and destroy it. If you once get your land over-run with them you will never get them exterminated. Just estimate, 44 bushels out of 170. Who wants wild oats?

SALT AS MANURE.

Edi or Farmers Advocate.

Sir:—I have made a small experiment with salt as manure and as I think with some benefit. I give you the results this last spring. I sowed wheat on sandy loam soil. After cultivating the field I then applied the salt at about 400 pounds an acre, and then cross dragged and finished. The effect was that the portion manured with the salt was five days earlier for cutting, and of a much better color in the straw and grain and while that on either side of it was considerably trinkled down, it stood firm and stands all the time giving a better yield in quantity and quality.

JOSHUA BOWLER.

North Oxford, Sept. 6th, 1871.

FEWER ACRES AND HEAVIER CROPS.

American farmers can not be too often reminded that what we should aim at is, fewer crops, cleaner culture, and a larger yield per acre. We are a great beef-eating people, and are taking kindly to good mutton when it can be found. Already a large proportion of the beef consumed in the Atlantic cities is raised west of the Mississippi. The price for the moment happens to be low, but it will not remain so long.

The farmer who raises good beef or mutton in New England, New York, Pennsylvania, Ohio, Indiana, Illinois, Iowa, or any of the older settled States, need not fear that the half-wild cattle of Texas or elsewhere are going to drive him to the wall. There is no sort of danger. Unaided nature cannot compete with agriculture any better than the Indian can compete with the Anglo-Saxon.

Our population is rapidly increasing, and the demand for meat will continue to increase from year to year. The causes which lead to an over supply for a few months are only temporary. The demand is increasing, and he is a wise farmer who looks ahead and quietly and perseveringly improves his farm and his stock. He is certain of his reward. Wool, mutton, beef, pork, cheese, butter, milk, poultry, and all other animal products will be wanted more and more as the condition of the world improves. There are millions of people, even in Europe, who seldom taste fresh meat. An Irishman eats double the meat and does double the work here that he did at home. Even the Chinese in this country eat meat as soon as they can earn money enough to buy it.

The point I want to get at is this: We have a large country. Land is comparatively cheap and labor comparatively high. Crops are great in extent but small in yield, and many of our farms are getting more weedy and less productive. Now, what we must aim at is to make them cleaner and richer. We must devote less land to the production of wheat and other grain that is sold, and more to the production of such crops as are fed out to animals on the farm.

We all know that it is far better to raise 300 bushels of wheat from ten acres than to plow, seed, and reap twenty or thirty acres to get the same amount. We obtain no more money for the crop in the one case than the other, but the profits are quadrupled. The market is not glutted with grain, and there will be more meat and wool to sell, and more manure to use. To bring this about, we must summer-fallow when necessary; sow clover more frequently, and not sell a pound; let our land lie longer in grass; and when it is broken up and planted to corn, cultivate it very thoroughly, and not overcrop it before it is seeded down again. In some cases it will pay to summer-fallow, and then seed the land to grass without a grain crop. We must aim to save labor, enrich our land, reduce the area under tillage, and when it is ploughed, cultivate thoroughly to kill weeds and develop the latent plant-food in the soil.

Plant-food is the farmer's capital. It is present in large quantities in most of our soils, but a great proportion of it lies idle. Our profits will be in proportion to the amount of this plant-food that we can render available and keep in active circulation without allowing

it to diminish faster than fresh quantities are developed from the soil by the decomposing and disintegrating action of the atmosphere.—*J. Harris, in Am. Agriculturist.*

LIME AND ASHES AS A WHEAT FERTILIZER.

The lime that is slacked and the wood ashes that is left, after firing the kiln are generally thrown to one side and sold at half the price of pure burnt lime. As a manure or fertilizer for wheat it is almost as good as guano or other fertilizers offered for sale. The above mixture of lime and ashes contains a large amount of soluble salts, and the sulphates, phosphates and carbonates and lime salts are just what the wheat plants want to perfect straw and grain. Experience has shown it plainly that where this refuse lime has been spread, the grain has come to maturity earlier, growing stiff in the straw, and yielding large crops of well filled heads of the best quality of grain. This can be seen mostly on the farms of lime-burners, who haul the mixture upon their land as it accumulates at their kilns, and the great fertilizing effect of this manure can be seen, not only upon their wheat, but on their grass land. Grasses grow much more luxuriant and have a much darker color, and the clovers and other cultivated grasses, grow above and crowd out the ordinary grasses. We have found that lime and ashes mixed as a top dressing for clover or for corn was worth as much as plaster, if not more, as it has always helped the corn to grow faster and helped it to ear better, and gives us a much larger yield with less smut on the stalk than corn that had no ashes and lime applied. Therefore we would advise our farmer friends to apply lime and ashes as a fertilizer for the cereals.

SOME HINTS FOR LIGHT LANDS.

A committee, after visiting the farm of F. D. Carter, of Northport, says:

"In 1868 there were on the place six or eight cows, a pair of mules, a horse or two, and 30 head of Meino sheep. They made about 75 loads of manure. The 600 acres of arable land was cut into twenty or more small fields, divided from each other by old hedge-rows, full of briars and small cedars. Several hundred acres were in the old common, that yielded scanty pasture for two or three months in summer. Much of this common was overgrown with oak bushes, little cedars, and hick-ry stumps. Now we find the farm stocked with 83 horned cattle of superior thoroughbred stock, 52 horses, 27 sheep, 72 hogs, 300 hens and 35 ducks, and he buys no hay, no corn, no oats no roots. He has 50 acres in one clover field. The sole outlay for cattle food, is about \$500 for wheat shorts. Instead of 75 loads of manure, we estimate his compost piles for use this spring and summer to contain 6,000 loads."

Manure-making with this vigorous farmer is not a theory—an effort and a wish merely as is with thousands. He makes it. There are the immense banks of it standing a fathom deep in the man stockyard, an ironing above the furrows of all the plowed fields. His compost pile is not the winter's accumulation thrown into the yard from the stable doors and windows to be hauled in the fields in April and May. Manure making and composting goes on the year round; no day of winter is so cold but it sees additions to the piles of fertilizers, no summer morning without its round of chores that swell the heap. "Everything" he says, "must have a mother, and manure is the mother of all things." He keeps an ox team, and has them driven steadily at work all the year round, hauling absorbents and composting stuff. His task is, five loads before dinner and five after dinner from the woodlands, muck, weeds and salt mud. His calculations are that the solid droppings of a cow or ox amount to something like ten loads in a year, and that ten loads of muck and leaves should be composted with it. For manure-making he says 5 sheep equal a cow, a horse equals two cows, and two hogs equal a cow.

WHAT IS HIGH FARMING.

It is a system of tillage and farm management that is self-sustaining, a system that takes nothing but the bare land, the domestic animals, the farm implements and machinery, and cultivates the soil, sustaining the family and the animals, pays the annual taxes, defrays the expenses incident to the improvements that must be made on the farm, cancels the annual interest on the money invested in the land, eventually pays for the land, all from the products of the soil cultivated; and after one, two and three decades of years, leaves every acre in a far better state of fertility than the soil was in the

beginning. This is high farming. There are untold numbers of quiet, unobstructive tillers of the soil in many of our States, who have commenced precisely as we have indicated, without one dollar of cash capital; who have no means whatever besides the natural resources of their cultivated fields, and who by hard work and judicious management sustained their families, paid for all their valuable improvements, and at the same time, have brought their land up to that state of productiveness by their judicious management, that every acre now yields from two to three tons of hay where only one year originally gathered, and they harvest nearly two bushels,—in many instances more than two,—of cereal grain, where the product was but one bushel. That is high farming. Yet such a system of husbandry is usually sneered at simply because the proprietor knew how to save his money to defray the expenses of improvements, rather than spend three times more than he made.—*New York Observer.*

THE "FULTZ" WHEAT.

This wheat is now largely sown in Mifflin, Juniata, Lancaster, and other counties of Pennsylvania, and the Agricultural Department has ordered 200 bushels for distribution. It is nearly smooth, sporting beards occasionally; very evenly six-rowed; the straw stands well, the chaff very close and adherent, and it is said never to have been affected by weevil, the grains short and plump, and in color a light dull red or dark white. A friend who is well acquainted with it and its history and who can be implicitly credited (Mr. J. K. Hartzler of Maccovetown, Pa.) has kindly sent me an account of its origin and appreciation, from which I am enabled to send you the following statement, mostly in his own words:

Abraham Fultz, the man to whom, under Providence, we are indebted for this productive, hardy and weevil-proof wheat, is a carpenter, but owns a small mountain farm of about 30 acres, lying at the foot of Jack's Mountain, in Menno township, Mifflin county, Pa. In the harvest of 1862, while assisting a neighbor, Christian Yoder, his attention was attracted by three beautiful heads of smooth wheat, apparently from the same root, growing among the old Lancaster Red. He plucked them off, and sowing them the same fall, he harvested the following year a half pint. In 1863 his yield was a bread basketful; in 1864 he had 19 sheaves. The next year, Christian Detweiler, a neighbor, got a bushel of him and sowed it along the north-west side of an old orchard where it was partly smothered by snow-drifts and much shaded by apple trees, and then pronounced it "hardly worth growing;" but on being threshed, it yielded much better than the Lancaster Red. So Mr. Detweiler sowed it again, about three acres in a sandy field. It stood up beautifully alongside of the Lancaster, and yielded 94 bushels clean wheat. David Detweiler sowed 13 bushels of that product, and harvested 300. It became famous among the farmers of Kishacoquillas Valley, in which it originated, and was carried into other valleys. On the limestone farms, its common yield has been from 30 to 35 bushels per acre, though it has yielded as high as 42 bushels, and in Juniata county it is now so universally popular that there will probably be three acres sown of it to one of other kinds. It has never been affected by weevil; the chaff adheres closely to the grain; it is tough to thresh, and persons sowing it for the first time will not find a very showy appearance above ground in the early fall and spring, but it abundantly makes up at harvest.

This variety fortunately never fell into the hands of speculators, and it is now in process of distribution to such an extent that no man, nor any dozen of men, can control its sale or put it up to ten dollars a bushel. Abraham Fultz is a plain honest man, relying on his daily labor for support. With the sharp practice of men like Ramsdell and Deitz, he doubtless could have made a fortune; as it is, he has never received even a compensation for his trouble, rated at its lowest worth. He has received no other reward than any others who have sown this wheat, and in a smaller proportion than most.—*Country Gentleman.*

"KISS ME, MAMMA."—"Kiss me, Mamma, before I sleep." How simple a boon, and yet how soothing to the little supplicant is that soft, gentle kiss! The head sinks contentedly on the pillow, for all is peace and happiness within. The bright eyes close, and the rosy lip is revealing in the bright and sunny dream of innocence. Yes, kiss me, mamma, for that good-night kiss will linger in memory when the giver is mouldering in her grave.

"I keep the best bread," said a certain baker the other day to a poor fellow who complained of the inferior quality of the article he had purchased of him the day before. "I don't doubt it," replied the customer. "Then why do you complain?" asked the baker. "Because I would suggest that you sell the best bread and keep the bad," was the reply.