

A Lesson From American Authority.

There is no other class of periodical literature that is compelled to dwell on the importance of home markets to the prosperity of a country as the *Agricultural Press*. The importance of a home demand for all that the farm produces is made evident by all our financial transactions, and especially by the demand or want of demand for the minor products, that will not so well bear shipment to distant markets. The *American Cultivator* says:

"It is a wonder to the superficial observer how any nation that is so dependent upon foreign food as Great Britain can become and continue so rich, powerful and prosperous. It must be borne in mind, however, that since no nation can enjoy permanent prosperity that exports its agricultural produce and raw material, the reverse is equally true, that any nation that, like England, becomes the workshop of the world, receiving its contributions of food, wool, cotton, hides and the products of the soil from needy nations in exchange for products of its looms and spindles and forges and manufactories, soon monopolizes the lion's share of the world's trade, commerce and profits. The future prosperity of the United States depends upon the encouragement of commerce and manufactures in connection with agriculture; upon the establishment of home markets for the products of the soil, and upon foreign markets for the productions of skilled labor."

The Plow and Plowing.

Old John Worlidge, who wrote his "Systema Agriculturae, or the Mystery of Husbandry Discovered and laid Open," so early as 1681, calls the plow "the most happy instrument that ever was discovered;" and then he goes on to enumerate the advantages that come from its use in tillage—to read which one would not think, aside from the quaint wording, that his language was nearly two hundred years old, so completely does it conform to the practices and principles of the present day. He says: (1.) "The plow layeth the ground by degrees in ridges in such order as the nature thereof requireth; (2.) This often stirring the land makes it light, and fitter for the seed to take root therein, the clods being apt to dissolve by being exposed to the weather; (3.) It kills the weeds which in strong lands are apt to overrun the corn and waste the nitrous fertility of the earth; and (4.) It fertilizeth the land—the *sun* and the *sull*—(an ancient term for plow) are some husbandman's soil."

The following hints on plowing, slightly abridged from an American writer, will be of interest to many of our readers.

I will commence on the science of plowing. What? Plowing a science? Why there is no science in plowing; any ten-year-old boy can plow. Perhaps he can do the mechanical part, after a fashion; but I beg your pardon, there is a science in plowing, and a great one, too. From my observation, there are but very few who know how to plow a field, and especially a small plot of ground, gardens and other vegetable patches. Most farmers think that all that is necessary is to drive into a field with a strong team and large plow, at one side of the field and take the whole area of a ten or fifteen acre field in one round, and roll and bank up the dirt close against the fence, to kill out the briars and weeds that grow there, going round and round until the entire field is plowed, ending in the centre. And they think it is done beautifully, without a ridge or middle furrow to be seen. This they will do year after year, and perhaps their predecessors have done the same thing for a half century or more, until there is a bank of the very best soil in the field covering the third or fourth rail of the fence, all rotted away, and the briars extending for a yard or two out in the field, and a great sink in the centre. They never think that they are only cultivating the briars by such a process; they don't think that the only way to prevent the growth from spreading, if not kept down by cutting, is to cut off the roots by ditching, or, which will answer the same purpose, and much cheaper, by running the bar of the plow next to the fence and throwing the earth from it, leaving the fence-corner easily to be cleared, and all the fence rails above ground. They would last four times as long as if buried in soil, and be a great saving of money and time in repairing them.

I care not how level a piece of ground is, its productive qualities can be increased by being banked

up and made a little rolling, which may be done by plowing your field in small lands, say from 10 to 15 steps, and on each side be sure to plow what is termed a back furrow, which is done by running a furrow from 3 to 5 steps from the fence, (varying the distance at different plowings), then turning to the right at each end; when you finish you have a land from 6 to 10 steps wide, with one-half thrown from the fence; finishing with the same process across each end. If you don't like the small land process you can commence in the middle, and proceed as I shall hereafter explain in plowing gardens, and other small patches, which should always be headed up and the dirt thrown in the centre. This is easily done with the plow, in the following manner: If your garden or patch is perfectly square you commence in the centre, running the first furrow very short, on all sides alike. If you have a plow with the wing throwing the dirt to the right, you will turn your team to the right; if left, to the left. If your ground is longer one way than the other, measure in from each end, half the distance it is across the narrow way. To illustrate, if your ground measures thirty yards long and twenty yards wide, ten yards would be the centre of the width, from that centre; at each end measure in the long way ten yards, and there set stakes and run your first furrow from one stake to the other, and no further; then proceed as before, and then your horse is walking and turning all the time on unbroken ground. When you finish you will finish all sides at once; your ground will be headed up, and not a foot-print of your horse or self on the broken soil.

Hungarian Grass and Fodder Corn.

The objections raised by some to Hungarian grass are so well met by a correspondent of the *American Cultivator* that we transcribe from his communication the following extract:

At a recent meeting of a Farmers' Club I spoke in favor of Hungarian grass as a fodder crop, and as producing more to the acre than the best of hay, and knowing of nothing which would produce more milk. Having grown it a number of years with good success, I expected no disagreement, but was greatly surprised when a neighbor replied, and said he would not have it in his barn, as it had produced abortion in his cows, and would cause a mare to cast her foal. This was quite contrary to my experience, and I found no one to agree with him, though one writer thought if it was allowed to mature its seed, the seed itself might have an injurious effect, and the straw, being hard, would have a hurtful effect on the stomach of the horse.

I am very much in favor of cutting everything intended for fodder while in blossom, but farmers cannot always control their own actions. Last year, when my Hungarian was in blossom, the weather deferred me two or three days from cutting it, and the result was that seed was formed. This crop of Hungarian I fed to my cows the latter part of last winter and early spring, with no bad effects, and it yielded a good supply of milk; while cut up and mixed with a little meal it was fed to my mare, and I never saw her in better condition than she was while being fed with it. I really had success where I looked for failure. This success was two-fold. In the first place the Hungarian was too mature when cut, yet it produced no injurious effects on either the cows or the horse, even in this condition; in the second place it produced about as much milk as if cut earlier; at any rate my cows did not shrink in milk when changed from good English hay to this Hungarian.

Spring opened early this year, and I thought I would have some very early fodder corn. So on the 4th of May I planted a few rows; then on the 11th and again on the 18th of the same month; but it came up scattering, while the cold, dry weather which followed kept it back to such an extent that there was no perceptible difference between these three plantings and another lot planted on the 25th of May, and, although in past years I have never planted corn before the 20th of May, I never was so late in feeding it as this year. While I have had heavy crops of rye, barley, oats and clover, I look upon my corn for fodder as almost a failure; but even this has been relieved to some extent by a weed. Lord Palmerston is recorded as having said there was no such thing as dirt, it was only something in the wrong place; the same has been said of weeds something growing in the wrong place.

On examining my fodder corn I found it to appearance exceedingly weedy, and on examining these weeds I found them Hungarian grass. I

said, my corn is very light, but I will let this Hungarian grow, for it is the result of my cutting it late last year, the seed having gone into the manure and thence to the land. The last week I have been cutting Hungarian and corn mixed for my cows, and with the very best results, and it is now a question with me whether these two failures—the first to cut my Hungarian before the seed matured, the other the failure of my fodder corn, through early planting and drought—will not lead me in future years to feed green corn and Hungarian mixed, as the very best food which can be fed to milch cows.

Preserving Fence Posts.

The proper seasoning of timber before being used in any sort of structure is far more important than the season of the year when it is felled, kind of timber used, or preventives employed. There are paints, washes and heterogeneous steps recommended for preserving posts; but each is comparatively costly, and only partially successful. One great objection to the application of solutions externally, rests on the fact that the sap, being confined, accelerates decomposition in the interior. Most foresters must have observed this. What I would recommend with fencing posts is—the materials, when felled, to be directly sawn into posts and stored under sheds thoroughly ventilated, where they will remain at least a year exposed to "sun and wind." The neck or part between wind and water of each post should be slowly charred over a strong fire—slowly, because our principle means heating the timber thoroughly to the heart, so as to extract any moisture which may be still lodged at the centre, and hardening a crust on the surface of the posts.

Afterwards, to prevent the posts absorbing water, they should be well coated with coal tar, having its acid destroyed with fresh quicklime. The tar should be thoroughly boiled, to evaporate all watery matter, and applied boiling hot. A large tank holding the posts set on end, and filled with the scalding tar from a boiler, answers the purpose very well. Of course, the upper half of the posts can be painted when placed in situ. I am fully convinced coal tar, properly applied to thoroughly seasoned timber, is far more effectual in preserving posts than creosoting, poisoning, kyanizing, or all the paraphernalia of iron prongs, sheeting wrappers (an American invention), &c. One great recommendation in favor of the above process is, that it requires no skilled labor, and the cost is a mere trifle.—*Journal of Forestry*.

Good Hay From Marsh Grass.

The *Michigan Farmer* says: "In regard to the marsh grasses, this is peculiarly the case. One farmer will cut his marsh grass and find that it is eaten readily by his live stock. On inquiry it is found that he has cut it early, and though somewhat longer in curing it is of considerable value, and the stems and leaves contain a proportion of flesh-forming matter, and a flavor that renders it palatable as well as satisfactory to the appetite. Another can never see any good in marsh grass; his cattle waste more of it than they eat, and they only eat it when they are starved to it and can get nothing else. He cuts his grass after all his other work is done, takes but little care in curing it, and does not care much about it. The result was his labor in cutting, in curing, in hauling and stacking, was all so much capital thrown away."

Solid and Liquid Phosphates.

J. B. Lawes, writing to the *North British Agriculturist*, says: "The relative value to agriculturists of finely-ground mineral phosphates compared with the same phosphates dissolved by acid, can never be properly estimated by the continuous growth of roots. We have evidence that the gypsum, which is present in large quantities in soluble phosphates, has a very beneficial effect upon clover which forms part of a rotation, though the superphosphate has not been applied directly to the clover, but to the roots, two years previously. When soluble phosphate of lime is precipitated in the soil it is in a finer state of division than can be effected by any mechanical operation; and as minuteness of division is one of the great objects to be attained, it would be reasonable to conclude that a dissolved phosphate would be more efficacious than one that was merely ground. Although, however, phosphates in every possible form have been under experiment here for about forty years, I have nothing conclusive to bring forward in regard to the great superiority of soluble over insoluble phosphates."