



Agricultural Department.

CULTIVATION OF GREEN CROPS.

In this country the cultivation of the cereals has overshadowed almost everything else in ordinary tillage, so that comparatively little attention has been given to turnips, mangel wurzel, carrots, and other roots, to which the term "green crops" is generally applied. Although the conditions are less favorable to their growth on this side of the Atlantic than in Europe, especially in Great Britain, the time is drawing near when such crops will receive greater attention in the older agricultural States than has been given to them in the past. Among the obvious reasons which point to such a result the most prominent are that the methods and processes employed in general husbandry must be supplemented by others more in harmony with the changed conditions, not only of the soil, but of the demands that are made upon it for food and raiment. Grain crops cannot be grown successively year after year on the same land without reducing its productive capacity for such crops at last, below the point of profit. The older States have learned this lesson by costly experience. This is attested by sterile districts in New England that once were fertile; by barren fields in portions of the middle States; by vast wastes of exhausted plantations in the South, and by the steady decline in the yield of crops in the earliest settled Western States. It is, indeed, the unvarying history of agriculture everywhere; but it is a lesson which seemingly has to be learned over and over again by successive generations. It is but a question of time when the great "corn belt" of the West will refuse to honor the drafts of the farmer in paying crops, unless a system is adopted which will stop the drain made on the soil year after year by this crop, and restore the elements of which it is being exhausted.

And right here we are reminded by the reports from some of our crop and weather correspondents of the partial failure of the corn crop in some localities on account of an unfavorable season; a fact that indicates to farmers very plainly the necessity of growing green crops, thereby providing something for their domestic animals when corn or grass crops disappoint expectation.

It is hardly to be expected, however, that a system which is so different from that widely practised in this country will come very rapidly into use. The transition will take place only as fast as necessity for the change shall become apparent and the value of a mixed husbandry embracing green crops is better understood. Experience here, as elsewhere, will hasten its adoption. Our progressive men will understand—many of them do now—that the introduction of the green crops will be of great benefit to the soil, and thus improve their circumstances. The fundamental principle in this system consists in "rotation," or, as it is sometimes called, "alternate husbandry," and in order to secure the best results, green crops must enter into the rotation and be consumed on the farm. We cannot better illustrate this fact than by referring to the difference between the productive capacity of land in Great Britain at present and in former times. Many years ago naked fallows were employed as a preparation for wheat. When the land had been cropped for a number of years, it was seeded down and suffered to remain in grass for several years in order to recuperate its fertility. The land was scantily manured because the number of live stock kept was too small to supply manure except in restricted quantities; and this in turn was the result of a lack of sufficient provender to carry more than a limited number of animals through the winter. But a great and salutary change has taken place since the introduction of green crops, drill husbandry, and clear culture. The yield of an acre of grain crops has been very largely increased. In the first place it has been demonstrated that these crops are valuable for feeding purposes at all seasons; that by their consumption an amount of manure is made which cannot otherwise be so economically obtained; and that thus yield of grain crops has been increased to an extent far beyond former limits, and this too without the loss of time which the old method involved.

It may be said that our cheap lands as compared with the high-priced "holdings" of Great Britain render the adoption of the method of culture employed there unnecessary here. But if we can increase the fertility of our farms and realize large profits by following their example, is it not wise to do so?

The future of the dead meat traffic between this country and Europe gives this matter ad-

ditional interest. It is only the best beef produced here that is taken for export; and yet this beef is not equal in quality to the best beef raised by English and Scotch farmers. But, as Mr. Macdonald (of the *Scotsman*) says, there are no permanent reasons why America cannot produce as good beef as either England or Scotland. We can grow the food, if we had the cattle to make a proper use of it. To a certain extent we have improved cattle, but not in sufficient quantity to supply a steady demand for really first class beef; indeed, our system of feeding does not produce an article of such excellence as is produced by our trans-Atlantic friends. But we shall raise such cattle in greater quantities by-and-by, and, as the *Scotsman's* correspondent remarks, when our farmers come to see the advantage of careful, liberal, and systematic feeding, we shall produce an article as good as can be found anywhere. The States, whence this supply of first class beef cattle will come, are those where green crops are required to bring the soil back to a condition of high fertility, for those crops require the adoption of methods of culture which not only improve the mechanical condition of the soil, but stimulate the production of manure to constantly enrich it.—*From the Western Rural.*

SOME GOOD IN BAD TIMES.

We observe on very many of our Eastern farms a much stronger disposition to make "improvements" than has been manifest for many a year. More rough land is cleared; more stones are put into walls or drains; more bushels are dragged out; more of boggy lowlands are put into presentable condition. In short, improvements are taking an eminently practical bearing, and are less lavished upon processes of "slicking up," and painting, and mere house beautifying.

The promise is a good one, and the tendency is a direct out-come of the "hard times." For, first, labor is cheap, and farmers can better afford the extra two or three or four hands than in times when each man of them would be insistent upon his \$1.75 or \$2 a day. Again, the farmer's own team—which, in the high-pressure period of 1870, or thereabout, was decoyed by high pay into street-making or dock-filling or cellar-digging and work outside the farm, is now confronted with such a let-down in prices and lack of demand, that the farmer is forced to plan home-work to keep his team fairly occupied. The prices, too, which came in high-pressure times, went largely into bonds or stocks that were tempting by high interest and low cost, and which are now largely melted into thin air. The present team-work upon the farm, if it brings no money in hand, will, if sagaciously directed, make the bases of sure though slow and moderate returns.

Again, every working farmer has been educated by the pinch and wreck of the last few years into a larger confidence in the security and soundness of his own calling. With thousands in all quarters out of work, he is never out of work. Special mechanical trades have come to a stand-still, but farm-work need never be at a stand-still. Every recurring morning invites to the same industry as yesterday, and the industry promises unfailing return. If there is glut in one crop, there is hope in another; and if there be temporary over-production—which never happens—there is the opportunity and incentive to fall back upon the working out of those permanent improvements which will make culture easier, and wider, and surer in the years to come.

We don't mean to repeat the old, stereotyped arguments of the agricultural orators in favor of farm life; we only want to show how these hard times we are living in (and now getting out of, slowly,) have given a good clinch to the old common-sense notion that a man who does good work upon the land is sure of his reward—in bad times as well as good times. The old drift into pursuits that promised quick and extravagant gains has got a smart blow between the eyes; and the sober second sight, that reckons things at long range, is held in more regard. We can give no better word of advice to farmers in these days than to act on the assurance, made good by defaulters all around him, that his "trade" is a good one, and worth pushing in this time of low-priced labor, to the full limit of his income.

If there is an old swale of land with tussocks of moss, and hidden stones, and growth of hardhack, that has been an eye-sore and been doing nothing, now is the time to uproot it, and tear it in pieces, and bury the stones and bring it to level. If not in time for this autumn's sowing to rye, it will after the frosts, and the slightest dressing with superphosphates (or, may be, only a good liming), give an oat crop next season, and a quick following stand of clover.

If there is a low-lying bit of land, which has bothered you this many a year with its multiplying bogs, and foul growth, put a ditch through it, clip off the bogs, pile them and burn them, spread the ashes, with such other

fertilizing material (lime may be the best of all) as you can command; covering the ground with your harrow, and next spring with a new harrowing—whenever the meadow will bear the team, give it a dressing of foul-meadow grass-seed and red-top. You will find your account in it.

Have you a piece of mowing, through the best of which a little runlet of water tempts sour and coarse grasses to grow? For if you can not by a dam somewhere above, and by a few deft openings, with the plow, lead away the excess of water to portions of the field that need it, and relieve the wet bottom of its overplus of moisture, do not be muddled and taken aback by any scientific and long-winded treatises on the true method of irrigation. The truest of all methods of irrigation is to take water from land where you do not want it, and persuade it to flow over lands where you do want it. Three days' work of this sort will often effect an amazing change in the grass-bearing capacity of a field.

Have you a high-lying piece of ground, with stumps that make its cultivation a torture to men and teams? There can be no better time to give them a hoist; dynamite, with a safe man for handling, will do it quicker and easier than it could ever have been done before. And the field, after such handling, will very likely prove the best you could find for a new set of orchard—for which the nursery stock, of all approved varieties, was never so cheap as now.

Do you plead costs as a bar? Well, how do you reckon costs? You may, indeed, recall a time within seven years, when you might have hired out your team and your force, during the fortnight or month, requisite in such a job, for a sum that would have purchased smooth land adjoining. Suppose this to be true even now, and you would only have the mere fences to make, the mere taxes to pay—without the satisfaction of having subdued roughness, and brought it into harness for human wants. But the chances are, that there is no such outside opportunity for work, and that your teams are idling, in the vain hope that something may "turn up."

An earnest man builds his satisfaction upon conquests; and the satisfaction of reducing a rough, ungainly lot of land to evenness, and comeliness, and productiveness, is one of the richest that a farmer can enjoy; ten times better than the satisfaction of having turned a "good trade." And then, the record is always there before him—ensuring results to his children, if not to himself. There can be no better time than now for making the waste places smooth. And the low wages and the "hard times" are making results possible upon the farm, which never were so easily attainable as now. Therefore, we say, IMPROVE, to the utmost.—*N. Y. Tribune.*

WASHING BUTTER.—Mrs. Judd gives her housewifely experience thus: My experience in butter making is that butter that is not washed will keep better than that which is. I think milk should have deep setting and plenty of air and light. One great cause of so much poor butter comes not from the want of pains in caring for it, but because of the milk not being skimmed in proper time. We use a barrel churn, are particular to have our cream at sixty-two degrees, and never churn longer than half an hour. At the end of that time the buttermilk is drawn off, and we have never failed of having butter in nice shape. It requires but little working on taking it out of the churn. On the second working we take a cloth that has been wrung as dry as possible in cold water, and wipe each portion as it is put into a jar. This absorbs the buttermilk, and any lurking atom of moisture in this way is prevented from becoming a cause of rancidity. Washing butter gives it a much lighter color than it would have without washing. Water gives it a more salvy appearance. Butter must not have too much working, and it requires less to extort buttermilk than water. We think an ounce of salt to two pounds of butter insures a better article than more salt. It is a mistaken idea that salt will preserve butter. About four per centum of butter is sugar. We all know what effect water has on sugar; it certainly does not add to its sweetness. If butter is washed, it must wash this sweetness out. Now if the butter has lost its sweetness wherewith shall it be sweetened? It is henceforth good for nothing but to be cast out into the class of washed butter.—*Journal of Chemistry.*

SOFT SOAP FOR TREES.—I had a friend who used soap till his trees were polished—one could see his face reflected from the bark; eventually, he lost his trees, especially cherry and plum trees. Several neighbors saw his trees and commenced soaping theirs. When he and one other man lost some fine cherry trees, all quit that knew the result. The trouble is in applying it in hot weather. The alkali evaporates and leaves the grease; the sun cooks the bark. If used in the fall, it will kill all insects and their eggs. The spring rains will wash the trees before hot

weather. Strong soap suds may be used any time if not too strong and too often. It is so very good for trees. After trying it, and seeing the good effect, one is apt to go to extremes in using it. No danger late in the fall.—*J. M. H., in Fruit Recorder.*

DOMESTIC.

TO MAKE APPLE SAUCE.—Pare, quarter, and cut the quarters open, put into a large bowl or earthen pudding dish, sprinkle sugar between the layers, pour in a cup of water, cover with a plate, and bake in a slow oven for several hours. If I have much fire I leave the oven door open.

RENOVATING BLACK SILK.—Do not iron black silk. Peel two potatoes, slice them thin, pour one pint of boiling water on them, and let them stand four hours. When ready for immediate use, put about a quarter of a tea-cupful of alcohol into the liquor. Sponge the silk well on the worn side, rubbing any shiny spots with care; and then roll it tightly around a thick pole. This renews its freshness, and cleans it well.

NO EGG CAKE.—One cup of sugar and one-half cup of butter beaten to a cream, one cup of milk, two and one-half cups of flour, one cup of raisins or currants, one teaspoonful of cream of tartar, and one-half teaspoonful of soda. Spice with cinnamon, cloves and nutmeg to taste. This makes a nice fruit cake to all appearance, and keeps well. I frequently make an impromptu pudding, by steaming slices of this cake, and serving with sweet sauce.

WASHING FLANNELS.—Cut very finely about a quarter of a pound of best yellow soap, pour on it hot water, and let it dissolve; add sufficient for your use, and when luke-warm stir in a tablespoonful of liquid ammonia; then soak in the flannels and let them remain half an hour; then wash them well and rinse them in a second luke-warm water, with another spoonful of ammonia; if a third be used, the ammonia must be repeated.

TO FRESHEN PAINT.—Tea leaves may be saved from the table for a few days, and when sufficient are collected, steep, and not boil them for half an hour in a tin pan; strain the water off through a sieve, and use this tea to wash all varnished paint. It removes spots and gives a fresher, newer appearance than when soap and water is used. For white paint take up a small quantity of whiting on a damp piece of old white flannel, and rub over the surface lightly, and it will leave the paint remarkably bright and new.—*N. Y. Herald.*

WASHING.—The following suggestions are recommended by a correspondent who has tested them. For ordinary washing, use a tablespoonful of borax to every five gallons of water, and two ounces of soap; soak the clothes in this over night; give them a thorough boiling without wringing. When the clothes are very much soiled, see that the water is made soft with borax. Clothes thus washed will not turn yellow. In washing flannels, use one tablespoonful of borax to five gallons of water, without soap. It will not shrink them. For starching linen, use one teaspoonful of borax to one pint of boiling water; leave your articles to soak in the solution for twenty-four hours, then wash with a little soap. For cleansing black cashmeres, wash in hot suds with a little borax in the water; rinse in blueing water—very blue, and iron on the wrong side while damp.

BUCKWHEAT CAKES.—We shall now be having buckwheat cakes nearly every day through the winter. There was not time to "raise" the first batch, so I mixed them right up, as many do, with buttermilk, salt and saleratus; and oh, dear, they were just as heavy as they could be. I never could make any fit to eat, that way. I do wish some one would teach me how. I was saying so to an old housekeeper, and says she, "That is no way to make buckwheat cakes; it is a waste; they should be raised." Her buckwheat cakes are always as light as sponge cake, and as white, almost, as wheat. She told me how she manages. She uses none but the best grade of flour—and there is as much difference in the grade of buckwheat flour as there is of wheat. She says it is waste to use the inferior grades, that such flour does not go so far in a family. She mixes the batter quite stiff, using buttermilk as wetting, or if the buttermilk be very thick and somewhat scarce, puts it part water, adding enough good yeast to raise it; then when light enough and about to be baked, she stirs in a teaspoonful of soda dissolved in warm water. She did not say, but of course she must add a little salt. She says the first batch will not be so nice, but by mixing each time to what remains in the jar, they grow whiter, no other yeast being needed, only perhaps at long intervals to renew it. She adds soda each time before baking.—*Cor. Household.*