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The Farmer's Advocate

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Rotation of Crops.

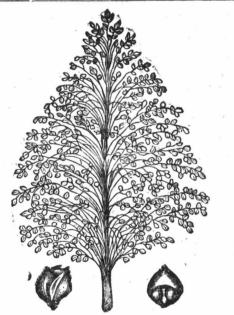
In compliance with the request of our Oakwood correspondent, we take up the subject of Rotation of Crops. We treated of it in the May number of the ADVOCATE in 1873, but very many have been added to the list of our subscribers, and the advantage of pursuing a regular system of rotation of crops in farming has been forced upon our attention even in our new country. The virgin soil of Canada might bear an uninterrupted succession of crops of wheat for years. It had been enriched for ages by the annual supply of plant food from the fallen leaves, and by the mineral supplies set free by the descending deep into the earth from the old trees; but these stores of fertility have in many parts of the country been wholly exhausted; successive crops of wheat have deprived the soil of the accumulated wealth of centuries, and the fields that at first, after the clearing produced heavy crops of grain, have been so impoverished as to return little more than weeds to the farmer for his labor.

Every plant takes its food, in greater or less degree, from the elements of plant food in the soil; it is therefore evident that successive cropping must exhaust it of those elements, hence the neccessity for repeated applications of manure; and though, as a general rule, every plant, of whatever kind, feeds on the same kinds of food, they consume them in very different proportions. Some take from the soil a great quantity of one kind of food, some others a quantity of another; some, for instance, require less lime and more potash; others require more potash and less lime. Some crops even give to the soil some of those elements needed by others for food. Clover obtains its food partly from the atmosphere and partly from the depth of the subsoil, and it leaves in the soil no little of the elements so obtained, available for the sustenance of succeeding crops.

The course of rotation adopted varies according to circumstances. It may extend over six or eight years, or a longer or shorter period. The Norfolk, or four years' course, has been found very profit-

able on light soil, and especially on small farms. In it there is no pasture. All the grass is fed to the cattle in the house of yard. By this means a large stock is kept. One-fourth of the land is every year under manured crops. Two grain crops are never taken in succession. The course for each division of the farm (one-fourth of the whole), is as follows:—First year, manured root crops—turnips, mangolds, &c.; second year, grain, seeded down with clover and grasses; third year, clover, &c., cut for soiling; fourth year, grain, to be followed by the manured crop of the succeeding course.

This rotation requires more labor and greater quantities of manure than any other, and the soiling in summer and the feeding of so much roots in winter afford greater means of providing the manure required. Soiling, though not an essential



REGULAR SORGO.

part of a system of rotation, is considered in connexion with it, on account of the great quantity both of food for cattle, which it supplies, and of manure required for the crops in the rotation. A four course system especially is closely connected with soiling, and is dependent upon it, unless some other sufficient supplies of manure are available. After the first year the farmer will have from the course pursued sufficient soiling and manure on the farm for carrying it out successfully. Rye sown in fall will be ready for cutting in May. After the rye, oats and peas mixed, for a short time till the clover is ready for the scythe. Corn sown in drills, Hungarian grass and millet will come in in good time, late in the season.

The five course system differs from that of four years by having one-fifth instead of one-fourth of the farm annually under each crop. This system we followed for years, having one-fifth of the land under root crops, two-fifths grain, one fifth clover and other soiling crops, and one-fifth pasture; pre-

ferring to have them feed partly on the pasture, instead of confining them wholly to the house and yard. The soil was rather light, better adapted for clover peas and root crops than wheat; but being always in good heart from the regular cropping with roots and clover, it gave very large returns of grain. On the quality of soil as much as anything else must depend the system of rotation most suitable for a farm, but some regular system must be observed in farming as well as in any other pursuit, to obtain the most profitable results in agriculture. Mr. M. can, from this general outline, decide for himself what course of rotation is most suitable for him from the quality of his soil, the crops he finds best paying and other circumstances.

Regular Sorgo.

The annexed illustration represents the regular sorgo, or Chinese sugar cane. There are three varieties of cane, each claiming merit. The Liberian has not as handsome a head as the regular sorgo, but some prefer it for making syrup. Syrup has been made in Canada from it. Many have made enquiries of us in regard to this plant, and the profit to be derived from it. We do not think it would be more profitable than other crops, as sugar is at a low price now; but it is our impression that it may be profitable as a soiling crop, as we hear that seventeen tons of it are raised to the acre. It grows to a great height. For feed it must be cut before it gets tough in the stalk. We think it would be well for farmers to try a little of it; we intend to try it this year. We give the following account of the mode of cultivation, &c.:

"Light, sandy soil, in the North, with Southern exposure, is best. New land and that which is freshly manured, gives poor syrup. Clay land yields a better syrup, but not so much of it. Have ground prepared as for corn-deep and mellow. Plant in check rows so as to plow both ways. On very rich ground it may be drilled, but in the North the rows should be run so as to admit the most sun between them. Plant shallow-half an inch is deep enough if ground is moist and warm. Put in plenty of seed, and then thin out, so as to leave in the hill seven to ten stalks of the Sorgo, or five to seven of the other varieties. As the shoots are easily transplanted and do well, an even stand can be obtained by thus supplying hills that fail to come up. Where crops are exposed to frosts in the Fall, the seed should be put in the ground early-before corn. In the south, early planting will give two crops from the same stand.

"When the plant comes up keep the weeds out till large enough for the plow. It is a slow grower at first, and if left to itself will be choked by the weeds. This is the time to 'make the crop.' When large enough, plow and cultivate as corn, till about thirty inches high, it will then take care of itself. Later plowing would then cut the roots and damage the stock."

The above is the mode of cultivation for syrup. For feed it may be sown broad-cast. From two to three pounds of seed is sown per acre.