sub ta: c s which constitute the food of other plants of its class. In fact, in t e absence of root cu ture, it is a very difficult matter to have a p.op r system of husbandry. However, even a change of cereal crops is bett r than no change at all. The system of planting corn after whea , then barley or oats, then clover, and afterwards wheat, is much practised in the United States and Canada. This course has been found to answer well. It would give, consecutively, one fou th of the cultivated land on a farm for turnips, potatoes, corn, and peas; one fourth for barley or oats; one-fourth for clover, and one-fourth for wheat. *Were this plan pursued, and all* the farmyard and artificial manures ap lied during the first year of the course, except gypsum on clover, I have no doubt that farming would be more lucrative than at present. All the crops wou d be more abundant, and there would be more system and regularity about the work of the farm than now prevails.

In the mode of tilling for wheat, the first and great point is to drain the land. In many places in Canada, the soil is s> wet th it wheat ca not be sown with even the probability of a fair return from it. A large po tion of the land is of this character The really first-rate wheat land in Canada, as in the State of New York, is limited in exte t. I admit that a great deal of land is sown with wheat but I do assert that the result fully bears out my opinion than in its present state, that is while we and undrained, a great deal of land is sown with wheat which ought not to be sown, for it only results in failure and disappointment. The first step then is thorough draining where it is needed, on al lands intended for the growth of wheat. Wheat must have dry soil or it cannot grow well. The Genesee country and other districts famed for the growth of wheat are dry. The soil in those places being gravelly, forms a permanent drain for sup rabundant moisture. It is gratifying to know that public attention is being directed to the subject of drainage, and I gladly embrace this opportunity of urging its general adoption.

The next important point in the cultivation of wheat is deep tillage. The old furrow of six inches deep and nine wide won't do. The roots of the wheat plant must have no such obstruction as hard pan at the depth of seven or eight inches. The land land ought to be turned to the depth of twelve or fifteen inches. The plan of turning a sleek painted furrow, may be very well as a piece of fancy work, but will not answer practical purposes. Change your rules at your p oughing matches. For the narrow and shallow furrow substitute a wider and deeper one, carry the rule to your farms and you will find a vast difference in the produce per acre. Instead of breaking up your summer fallows or clover sod with two horses, do it with three or four, or with what is an ex ellent plough team, a span of horses and a yoke of oxen.

A very essential matter is to clean the land thoroughly rom grass and weeds The great enemy to wheat is spear or couch grass, and it is a very difficult one to get rid of; if not checked it bids fair to take possession of our best wheat lands. In England it gives a great deal of trouble, and the wish to get rid of it, has led to various expedients. The old sys em of summer-fallowing, although partially successful, was found to be expensive and not so thorough in its effects as was desired; it cost a great deal of labor and did not do the work effectually. The best English farmers set it down as a system requiring double the numb r of teams necessary for the present improved mode. They discovered that the more ploughing of land d d not kill the grass, and that even four and six plowings did not eradicate it that even after all it still lived and infested the soil. They now act on the principle that to destroy speedily and effectually the vitality of a plant, it is necessary to cut off the communication between the roots and leaves, because no plant can long survive without coming into contact, above ground, with the atmosphere. They found that the *ordinary plough, unaided by any other implement, cannot effect this object* In England they use what is termed the "paring plough," one kind of which, (Bentall's) cuts the ground to the depth of two or three inches, another, (and I think the preferable one, Kilby's,) not merely pares but turns over the ground.—After this paring process, the ground is plowed deeply; thus the grass is buried at a considerable depth, where it remains undisturbed, to serve as manure. In the Genesee country, as in other places in the U S., a rather different plan is pursued, still the principle is the same. There the ground is pared and ploughed at the same time, by an admirable implement called the Michigan subsoil, or double mould board plough It consists of two ploughs, placed one before the other on the same beam. The forward one takes a furrow slice two or three inches deep, separating the tops of the grass from the roots, and lays its slice in the bottom of the previous furrow; the hinder one follows, raising a furrow slice eight or nine inches deeper. which it lays on the slice cut by the forward mould board. During the process of ploughing the soil is broken and mellowed, so that the work of harrowing is afterwards easily and well done. The grass is so deeply buried. that harrowing or even light ploughing cannot afterward bring it to the surface, to waste or grow again. Land ploughed with this plough, during the late wet season after lying without being harrowed for six or seven weeks, scarcely showed a blade of grass, while land in an adjoining field, ploughed with the ordinary plough, and afterwards well harrowed, was quite green. The reason is obvious. Sod ploughed in the ordinary way sends grass through the seams of the furrows as soon as turned over. This growth spreads through the furrow-slice binding the whole together. When cross ploughed the sod is not rotted, but is turned over in square pieces which can scarcely be shaken apart, thus the wheat is sown to struggle among sods and grass which grow again and choke the young plant. The practice of turning up again clover, which has been ploughed down for manure, is certainly not in keeping with the idea that in order to be of service, manure must not be much exposed to the action of the atmosphere. What good farmer would allow manure to lie bleaching on the surface of the ground? Is it more sensible to cross plough clover sod? How is it possible to get rid of couch grass when we plough up half-rotten sod? The mode now pursued in the best wheat districts of New York is to plough down clover in the middle or end of June, with the double plough. The land is harrowed thoroughly as soon after ploughing as possible. About the middle of July it is *turned over* to the depth of three inches with the "gang-plough" an implement *with four small ploughs fastened to a beam* resting on two wheels. It can be raised or lowered to the depth required, and is regulated by a pole to which the horses are attached. *Unlike the cultivator, it turns effectually the surface* of the ground over which it passes. It is drawn by three horses abreast.