

advantage, that while you get as many grain crops, you keep the land always in good heart, and between the crops of grain you get green crops equally valuable. This is accounted for by considering that no two crops derive the same particular nourishment from the land. The roots of some sink deep, and draw their nourishment from the bottom, while others spread on the surface, and it is generally believed that plants derive their food and support from as different ingredients in the earth, as the different kinds of cattle derive their food from the surface. Horses will eat grass which cows reject, and so with every description of cattle; and supposing the analogy to hold good in plants, it is easy to conceive that a change of crop may find the soil abundant in that kind of nourishment which it requires, although it may be, at the time, exhausted of that kind required by the crop which had gone before; and thus the ground may be as much restored by the introduction of a green crop after a grain crop, as if the field had actually lain fallow; and experience, in a great degree, justifies this reasoning.

I am fully sensible, however, that a system of over cropping with grain will extract every kind of nourishment from the soil, and leave it so that it will not even yield grass. This is the case with the land which is left to rest, as it is called by those who take three or four grain crops in succession; and the phrase is well applied, for the land is really not fit to do anything. The error of this class of persons is, that they turn the land to grass at the end, in place of the beginning of the course. Had grass seed been sown with the first crop of grain, there would have been a good crop of hay, and good after grass, and the second crop of grain would have been as good as the first; and this is what ought to be done by those whose land is not suited to clover, or who, from poverty, are not able to buy the clover seed; and even when two grain crops have been taken, it would be better to sow it with rye grass, which will yield a crop on very poor land, rather than leave the ground to be possessed by weeds and such herbage as may naturally rise. The fact is, the least exhausting crop should be put in upon green crops, the succeeding year, which crops then give the manure to restore it to a productive state; and by this means there is no land lost at all by what is called resting it.

5thly, The place for manure should be contrived so that it should not be exposed to any accumulation of rain water, but should receive the contributions from the sewers of the house, stable, cow-house, &c. The bottom should be paved, so that the drainage of the manure could run into a cask or well adjoining it.—Fresh earth should be regularly brought and spread over the manure, and the liquid in the well should be thrown over it; by which means the whole compost would be equally rich, and the quantity increased

to any extent that could be required; and the steam or smoke which arises from the stable manure, and which is the very richest part of it, would be kept under and imbibed by the earth so laid on, and the quantity of earth should be proportioned to the strength of the dung with which it is mixed. While speaking of manure, it may not be amiss to remark the great loss arising from the practice of letting off the water in which flax has been steeped, which, if sprinkled over, or made into compost with fresh earth, would be found most valuable.*

6thly, It would be the object of the Farmer, as soon as he possibly can, to have his fences made in straight lines, and of as great length as the farm will conveniently admit of. It is almost inconceivable the quantity of time lost by the frequent turning of the plough, and the quantity of land thrown out of cultivation, by having a crooked, irregular fence, the windings of which the plough cannot follow.

* At the time the flax is taken out to steep, all the rivulets in the country are strongly impregnated with the contents of the flax holes, and those through whose lands such rivulets pass, would do well to turn the stream, where it can be done, over their after grass, or use it in watering their cabbages, turnips, &c., the advantages of which would soon be perceivable. The richness of flax water is fully shewn by the growth and colour of the grass, where flax has been spread to dry. I have seen a most luxuriant crop of oats upon land irrigated with flax water, although a second crop; which shews, that if this manure was preserved, one of the greatest objects to the growth of flax would be removed. All scientific men agree, that the best manure to apply to land is that which contains the ingredients which the crop has taken from the soil. Flax water, therefore, ought to be applied to flax ground, and every particle of it should be preserved as being part of the substance derived from the soil. If the principle here alluded to is correct, how completely does it prove the propriety of the above directions for the management of the manure heap—for the farm-yard manure is derived from the hay, straw, grain, and green crops used by the stock; all which have been derived from the soil, and therefore the liquid portion, as well as that which the sun and wind extract, ought to be taken care of as much as any other portion whatever; and indeed more so, being by much the most valuable part of the manure.

From the Farmers' Gazette.

TO THE YOUNG FARMERS OF IRELAND.

LETTER IX.

ON FALLOWING.

MY FRIENDS—In this letter I propose to treat of the too prevalent but bad system of fallowing.

Fallow is derived from an old Saxon word, signifying pale-red, or pale-yellow. Fallow deer are so called from their colour, and fallow land from the colour of naked ground. The sense in which I shall use the term is that of bare and ploughed land in a state of complete rest; and by rest I mean the entire absence of the growth of plants of every description, which can only be obtained by ploughing or harrowing at intervals, and repeated so as to prevent the process of growth. It is obvious that weeds exhaust the land

as much as valuable plants, and if allowed to spring up, the object of fallowing is defeated.

Of fallowing there are two kinds, whole and half. The first is allowing the land to remain in a state of rest, for a whole year. The second, or half fallowing gives this state of rest for a shorter period, without occasioning the loss of a year's crop.

The history of whole or naked fallowing is of great antiquity; the Romans introduced the system into Great Britain, their idea being that land could not continually bear vegetable produce without rest, and their usage was to fallow after one winter and one spring crop of corn; they gave frequent ploughings, each of which they distinguished by a particular name, and for the purpose of having always a fallow in the third year, their farms were divided into three parts, one in fallow, one in winter corn, and one in spring corn. This was the oldest rotation known, and in some countries it was enforced by law.*

In some of the wild parts of North America, it is not very uncommon for the back woodsman and his family, having cleared land and taken some corn crops from it in succession, to migrate to a new district, or to leave the worn-out part to recover in some measure its previous fertility without any aid from him, whilst he is pursuing a like course of management with fresh land, trusting to rest and to the prolific nature of the vegetable mould formed by the long accumulation of rotten weeds and leaves, for the reward of his renewed labours in clearing.

Such a practice may be allowable in countries where land is abundant and manures are unattainable, and where men are "few and far between," but it is too defective and wasteful to be permitted in a country like ours,

"Where every road maintains its man."

I hope to be able to convince you that the whole fallowing, which necessarily causes the loss of an entire year's crop, should be discontinued, and is unnecessary for the refreshment of the land, which can be profitably recruited by half fallowing, by proper rotations and by manuring.

The practice in Ireland has been slovenly and imperfect, and I am so far fortunate in urging you to abandon an extravagance, that I have not to ask you to forsake that which has either the beauty of performance, or utility, to make it dear to your recollections. I shall best consult our national feelings, by not attempting to describe a real Irish fallow, where the weeds are allowed to flourish, and the land, but once or twice ploughed and unpulverised, derives little benefit from atmospheric influences.

Since the introduction of clover and turnips, the English who had previously whole fallowed in the best and cleanest manner, have learned the economy and