

production should pay the strictest attention to, as much injury has resulted from the drying of damp flax over or opposite fires.

We are now ready to send it to the mill to be scutched, &c., if not hand-scutched. The trouble which flax entails in the various processes which it has to undergo before it is ready for market is often objected to. This, however, will not be considered of weight by the careful and enterprising, when they find that their profits increase in proportion to the care and skill exerted in the different processes of management. It is by manual labour that nearly all the flax in Belgium, Holland, &c., is dressed. In Ireland a considerable quantity is also prepared in this way; formerly at least, it was the case, but now a-days, since machinery has become so extensively available, the greater proportion is scutched by mills. But in case of a small farmer, manual labor is preferable, being cheaper; but to the larger farmer, with a considerable crop and few labourers, it is tedious and expensive, and mill-scutching is far in the way preferable.

The comparative merits of the two modes of scutching must be regulated according to circumstances. When labour is plenty, and a man wishes to employ those who would otherwise, perhaps, be a burden to the parish, hand-scutching is undoubtedly to be preferred. Women and young lads can perform hand-scutching as well and much better, in fact, than men, and the farmer can regulate the period for dressing his flax according to the time when he has least out-door work to perform. In like manner, it is a most consoling employment to the cottier's family, when they have no other occupation. But I say when labour is comparatively scarce and the crops large, hand-scutching is much too longsome, and the mill is to be employed.

Flax, when scutched, should be tied up in bundles, say of a stone or two each, and stored in a cool place, a ground floor being more suitable than a dry airy loft. No damp should be allowed to effect it either; but it keeps better on the floor, for it gets dry and brittle, and does not appear so well when stored on dry lofts. It is vastly improved when it has been a few weeks stored—far better, in fact, than immediately after scutching.

Belfast is the greatest flax market in Ireland, Leeds in England, and Dundee in Scotland. But in all the flax-growing districts in Ireland there are minor flax markets held on stated days, at which agents attend, and the farmer can bring his flax in

carts to the nearest flax market, where he gets soon disposed of it, and, if all points have been carefully attended to, with ample profit to himself.

A vast deal more could have been said on this subject, as very many important items have been left out, as, for instance, the value of its seed for young stock, &c., as also the mode of preserving it, which has been slightly hinted at, and other points of no less import, which would require months to elucidate. But none of those points of any consequence with regard to its cultivation have been omitted.

January 10th, 1860.

## EFFECT OF MANURES ON CROPS.

BY J. C. NESBIT, LONDON, ENGLAND.

I have now to speak on another point, namely, the effect of manures on the production of plants. Before doing that, let me observe that what we call the roots of turnips and mangel wurzel are not, botanically speaking, roots, but bulbous formations, intended to accumulate the necessary materials for the production of seed in a subsequent year. Now as regards the growth of plants, there is one thing ought to be borne in mind by those who are practically engaged in the work, namely, that you may over-produce a thing, or stimulate one portion of a plant to the detriment of another portion. You know that if you sow wheat upon a dunghill you will get straw, and no grain. The reason of this is obvious; and it applies not merely to wheat, but to a great many other plants to which it is not generally supposed to apply: it is, that the action of too large an amount of stimulating manure at an early period is, to cause the formation of large cellular tissues, by which the power of the manure is thrown too much into the formation or production of the first portion of the plants; and when you want afterwards to fill the cells with the materials of nutrition, it turns out that you have nothing to follow on with. In the case of turnips the result is simply this, that you have a large development of leaf, and too great an extension of the cellular tissues of the turnips, which cells do not subsequently get filled up with the proper amount of starch and other nutritious substances. In the case of wheat the result is similar. You may stimulate wheat, or barley, or oats to such an extent that the product will be all stalk, there being no power to produce the ear of corn; or if the ear be produced, it