

ish yellow oil, possessing the peculiar though slight smell characterizing linseed oil. This oil is readily obtained by pressure from the seed; the residuum being the well known feeding substance termed 'linseed cake.'

Soils suited to flax.—This plant may be said to have a wide range both of soil and climate, and is therefore well adapted to an extended course of husbandry in most of the countries occupying, at least, the temperate zone. It can be grown by judicious culture on sands, gravels, marls, and clays; alluvial or swampy lands when thoroughly drained and cultivated will often produce heavy crops. In Ireland, flax is sometimes successfully raised on peat-bog lands, with a clay substratum. But the best soil is a sound, dry, deep loam, resting on a somewhat porous and calcareous clay, otherwise termed marl. The good wheat soils of Canada are well adapted to the growth of flax. It should be borne in mind that stagnant water in the soil or subsoil is particularly injurious to the roots of this plant; and in such a case, thorough underdraining would be an essential condition of success.

Preparation of the soil.—Land intended for flax should be deeply ploughed in the fall, and well water-furrowed, that the surface be kept dry. This precaution will be necessary, even if the ground be naturally dry, or rendered so by underdraining, since in this country water will be sure to stagnate in low places in spring, whether the soil have covered drains or not. The ground should be again cross-ploughed in spring as soon as it is sufficiently dry; care being always taken not to get upon it when in a wet state. Instead of using the plough in spring,—provided the land had been deeply ploughed in the fall, the cultivator is considered by many to be preferable. This instrument, if sufficiently strong and heavy, will pulverize the soil 8 or 10 inches, and keep most of the dry, friable matter of the surface still at the top, which the plough will of course turn under, and bring to the top earth in a less favorable state for the seed bed. At all events, a deep tilth is always desirable, and the surface for several inches deep should be fine and mellow for flax seed to germinate and start advantageously. Such

a surface our long and intense winter frosts naturally produce in spring. Harrowing and rolling must be had recourse to as often as circumstances require to get a fine, deep tilth. The roots of flax being of a fibrous character, extend laterally and vertically to a considerable distance in search of food, frequently from 2 to 3 feet, where the soil is suitably prepared.

Depth of tillage always adds to the feeding ground of a crop, and places increased supplies of mineral food at its disposal, and thus aids materially the development of its bulk. Although soils rich in organic matters are not generally so suited for flax as those of a medium class, still it is always desirable that the soil should be in good heart and condition, as the flax crop occupies the ground only a short time—fourteen to sixteen weeks, and must find its needed supply of food within a limited range, and in an available form. This condition of the soil is materially affected by the state of the division of its particles; a fine tilth, by exposing an extended surface to the action of the air, and of the rootlets of the plant, assists directly in the preparation of the food, and also in giving the plants better access to it. * * * Keeping the ground perfectly clear of weeds is of essential importance to all crops, especially so to the flax crops, as the plant in its cultivated state is of delicate and slender habit, but ill fitted to rough it in the fields, with the stouter and stronger indigenous plants, of a quick habit of growth, and of perhaps less powers of assimilation than those of our other ordinary crops; therefore, if we wish to carry on a successful cultivation, we must assist it by those means which experience and a proper knowledge of the requirements of the plant has shown to be usually followed by satisfactory results."

It is not deemed generally advisable to apply manure directly to the flax crop; straw manures especially, produce a coarse, and therefore less valuable fibre. Yet it should be remembered that a heavy and remunerative crop of flax cannot be grown upon poor ground. It succeeds best after a crop that has been liberally manured; particularly