

There is one source of clean flax available to all. This is the seed plot on the home farm. Each farmer who intends to grow flax as one of the regular crops on his farm, particularly as a crop with which to subdue new land, should plan to start a seed flax plot on which to grow his next year's supply of seed. By growing the seed on a small plot it becomes quite possible, even under the labour conditions of the average Saskatchewan farm, to go through the crop on the seed plot carefully several times during the growing season and pull what weeds and other foreign plants may be found growing there. The labour involved in this task will be amply rewarded by the increased return from the crop grown from the seed secured in this way, aside from the satisfaction of growing a crop that will be practically free from weeds.

The Disease Known as Flax Wilt.

If the most important requirement of seed flax is freedom from weed seeds, the next requirement is freedom from wilt. Flax wilt is a fungus disease of the flax plant discovered many years ago, and experimented with in a variety of ways ever since, by Professor Bolley. A characteristic of flax in America has been that the yield speedily dropped from a highly profitable to a distinctly unprofitable level when the crop was extensively grown without rotation in any district for a short term of years. In consequence the crop has become nomadic in character, constantly seeking new localities, and has been used almost exclusively as the first crop sown upon virgin lands that were being brought under cultivation. It was commonly thought that flax must be very exhaustive of soil fertility or at least of some element in the soil essential to the production of the crop. Others thought that by growing flax some deleterious chemical compound was formed in the soil that rendered the field unfit for the production of that crop in future. It was left to Professor Bolley to unearth the real cause of the trouble when he discovered about ten years ago, that—to use his own words on the subject—“Flax sick soil is occasioned by the presence of a fungus, *Fusarium lini* Bolley, which may be introduced to new soil areas by way of the seed flax, and when once in the soil propagates with rapidity. Flax plants are destroyed by it at all ages of growth from seed time to maturity. About four years cropping to flax suffices to destroy the usefulness of the soil for the growth of the crop, if disease bearing seed is used. The flax crop has also been found to be subject to the attack of other destructive parasitic plants, but this one alone was found to be widespread in its distribution and sufficiently destructive to fully account for the disappearance of flax as a general crop in all but a few of the north-western states.”

Until a few years ago flax wilt was almost unknown in Saskatchewan. This condition was largely due, probably, to the fact that the crop was only grown extensively on the Soo line of the Canadian Pacific Railway in Southern Saskatchewan, and there only on new land. Sometimes two successive crops were taken, but flax was only used as a means of reducing the soil to such a condition that it would grow wheat. In consequence the flax area changed so rapidly that the disease had small chance to spread. Now, however, the crop is being grown