

Doubtless there are many prejudices in connection with the growth of flax. The farmers have the idea that its growth exhausts the soil, but the experiments carried on by the Department of Agriculture during the years 1906-1908, the results of which appear in Bulletin No. 59, show that this view is unwarranted. The Bulletin asks the question, does flax exhaust the soil? This question is usually answered in the affirmative, but this opinion does not appear to be warranted by the chemical analyses which have been made of this crop, showing the principal elements of fertility taken from the soil during the period of its growth. The results which have been obtained by chemical examination have furnished the following figures, which represent approximately the plant food removed from the soil by flax, wheat and oats.

The figures mentioned to this (to quote Professor Saunders):

It will be seen that the grain in the case of wheat crop, takes up a little more nitrogen, nearly one-third less of phosphoric acid, and about one-eighth less of potash. The difference, however, in exhaustive effect of these several crops on a rich soil would scarcely be perceptible, and would not justify the opinion that flax is a very exhausting crop.

Another eminent authority, Dr. A. W. Thornton, of Bellingham, state of Washington, who edited a new book, entitled, "The American System of Flax and Other Fibre Culture" only last year which gives considerable information on this subject, says:

SOIL AND SOIL EXHAUSTION.

Right here it may not be out of place to refer to a very generally held, though erroneous notion, that flax is very exhausting on the soil. In this connection I cannot do better than quote from C. R. Dodge, report No. 10, on Flax Culture, in the United States, published by the U. S. Department of Agriculture, in which Mr. Eugene Boss, a leading authority on the subject, states as follows: "There is a strong prejudice among some people against the culture of flax, they say flax is hard on the land. I am painfully impressed in regard to the wisdom of those who advocate such an untrue thing, because of their ignorance of the composition of the plant, its habits and needs. Yes, the flax is hard on the land, when the farmer plows his land shallow, sows it thinly, and allows the weeds too much room to fill the space, then it is not the flax that ruins the land, but that very rapacious enemy, the weeds. Plow the land shallow, and you do not let the plant follow its natural course. You force its roots to feed on the surface, and there lies one of the reasons why flax, as commonly cultivated, remains short and dries up instead of ripening naturally. The moisture it so much requires is too quickly absorbed. It is true I have seen fields of pretty long flax that have been sown on very shallow land, but that land was very rich or very open, with a propitious season. I deny that flax is harder on land than wheat, rye, oats, or barley, when similarly cultivated, it wants a deep soil, 10 or 12 inches at least, thoroughly pulverized in order to allow its main root to go straight down into the earth and find there most of the elements essential to healthy growth.

[Mr. Glass.]

He goes on in this way, and his comments on the article show that he is entirely opposed to the theories generally prevailing among the farming community as to the exhaustion of the soil. So much for the flax which we have been growing in Ontario and several other provinces. There is another side of the flax question which is of very great interest to the people of western Canada, and I desire to draw the attention of the House to the developments and the investigations that have been going along in that direction. It is generally understood that farmers of the West have not produced a class of fibre which can be spun into yarn and from yarn woven into high grade linen. The invention and perfecting of a flax puller by the Flax Harvesting Company, Limited, of Brantford, Ont., which is the same machine known as the Tombyll already referred to—has provided a simple, effective and proven puller, promises to be an immense stimulant to farmers throughout the country, and if used by the farmers of the West will add many thousands of dollars of value to the straw product. Indoor retting under the Feuillette system has been in operation for some years, and in France six years ago a substantial grant was made by the French Government to the inventor. A machine for deseeding flax straw has been perfected, the work being done without breaking or tangling the straw, and is now on the market. Bulletin No. 669, published by the Department of Agriculture, Washington, also shows the quantity of linen fibre produced.

The company known as the Flax Fibre Development Association, under the management of Mr. F. L. Van Allen, of Regina, Sask., encouraged by the provincial government, have made, they claim, substantial progress in methods of utilization of western flax straw. They claim to have produced on a commercial basis, yarns binder-twine, heavy commercial twines and fine commercial twines, all from fibre of western flax straw. The seed is threshed, but must not pass through the blower. The fibre is extracted from the straw by mechanical process, treated by their own methods, which can be carried out under cover without regard to climatic conditions, the fibre then being, drawn, spun, and twisted on standard soft fibre machinery. As the problems affecting western straw are vastly different from those in the East, they have had to be solved by scientific research. The objects of the company have been defined as follows: To separate and extract