

If we compare this with a crop of wheat yielding 25 bushels of grain per acre and 2,200 lbs. of straw, we find that the wheat takes from the soil—

	Nitrogen.	Phosphoric Acid.	Potash.
	Lbs.	Lbs.	Lbs.
For the grain, 1,500 lbs.	28.50	12.68	8.54
" straw, 2,200 lbs.	12.03	4.96	20.57
Total	40.53	17.64	29.11

If we compare the figures given of the analyses of flax with those of a crop of oats of 50 bushels to the acre with 2,200 lbs. of straw, we find that there is taken from the soil by the oat crop—

	Nitrogen.	Phosphoric Acid.	Potash.
	Lbs.	Lbs.	Lbs.
For the grain, 1,700 lbs.	32.13	10.48	8.06
" straw, 2,200 lbs.	13.90	4.74	24.83
Total	46.03	15.22	32.88

The larger part of the straw of all these crops grown in the Northwest is usually burnt, when the mineral ingredients taken from the land are returned to it in the form of ashes. In the east, where the straw is utilized chiefly for bedding animals, the mineral constituents taken up are returned to the soil with the manure, hence the seed only need be considered. It will be seen that the grain, in the case of the wheat crop, takes up a little more nitrogen and somewhat less of phosphoric acid and potash than is taken by the flax seed; while the oat crop takes for the grain a larger proportion of 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. In some experiments tried at the Experimental Farm at Brandon, Man., during the year 1895, in sowing wheat, oats and barley after flax, the results obtained point to the same conclusion.

THE IMPROVEMENT OF FLAX BY SELECTION.

At the Central Experimental Farm the tests of different varieties of flax have been found unsatisfactory owing to the mixed character of the different kinds. The Cerealist is now engaged in propagating a number of selected strains so as to obtain varieties which shall be really distinct and homogeneous. Some of the new selections will, it is expected, be an improvement on the original mixtures from which they were obtained.

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