

Table 3.—Principal North Dakota Crops.
(Ranked in order of importance to Total Farm Economy)

Crop	1934-43 Average	1943-44 Total
	Dollars	Dollars
Wheat	78,879,000	201,944,000
Feed Grains (barley, corn, oats)....	41,056,000	127,928,000
Hay	11,703,000	17,687,000
Potatoes	8,482,000	22,763,000
Flaxseed	9,296,000	41,694,000
Rye	3,544,000	3,452,000

been done in Table 3 with the crops ranked according to what seems to be their normal or long-time relationships.

This still leaves out rye as one of the five important crops. Rye might also be considered as a feed crop although a relatively smaller proportion of it is used as feed in North Dakota as compared with the other three feed grains. The five most important crops produced in the state of North Dakota, and the order of their importance then would be: (1) wheat, (2) feed grains, (3) hay, (4) potatoes, (5) flaxseed.

It may be somewhat difficult to understand why flaxseed is ranked fifth when the ten year average in Table 3 would seem to indicate that

it should be ranked fourth. This comes about solely because of the abnormally large acreage and production of the 1943 flaxseed crop. Taking the same figures that were used in determining the 10-year average of 1934-43 in Table 3 and eliminating the values of the 1943 crop for both flaxseed and potatoes results in a 9-year average value (1934-42) of \$6,895,000 for potatoes and \$5,696,000 for flaxseed. Or if the 10-year period of 1932-41, which is only two years different from that used in Table 3, is used the average value of potatoes is \$5,450,000 and that of flaxseed is \$3,568,000. This clearly shows that the normal or long-time rank of flaxseed should be below rather than above potatoes.

SEED TREATMENT Increases Yield From Light Weight Barley Seed

That the yield of barley can be substantially increased by seed treatment with ethyl mercury phosphate is evident from experiments conducted in 1944 by W. E. Brentzel, Plant Pathologist. A lot of rather low test weight Wisconsin 38 barley was separated into three grades by the use of a grading machine; namely, a heavy grade weighing 43 pounds to the bushel, a medium grade weighing 39 pounds to the bushel, and a light grade weighing 34 pounds to the bushel. The heavy grade contained 10.7 percent blighted seeds, the medium grade 9.8 percent and the light grade 4.3 percent. Seed treatment had an insignificant effect upon the percent of emergence, although there was in general a slight improvement in the percentage of emergence.

Treating light weight barley seed with ethyl mercury phosphate returned a 25.8 percent increase in grain yield as compared with the yield from untreated seed whereas treating the heavy weight seed returned an increase in yield of only 4.5 percent. Treating the medium weight seed returned an increase in yield of 15.3 percent over untreated seed.