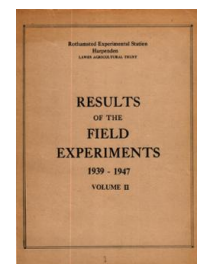


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Short-term Experiments

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CROPPING OF NEWLY PLOUGHED GRASSLAND

A series of three experiments.

1. Great Knott II, 1939-40

Six crops were grown in 1939. Superphosphate was tested on all of them, potash on beans and potatoes only. In 1940 wheat was grown, testing sulphate of ammonia and the residual effects of the previous crops and fertilizers. Two fumigants, naphthalene and calcium sulphide, were used against wireworm in 1939 and their effects on the six crops were also measured.

Design; 24 randomized plots, each split into three for fumigants in 1939 and for sulphate of ammonia in 1940, the sub-plots under beans and potatoes in 1939 being split again into two for potash. In 1940 the experiment was treated as two randomized blocks of 12 plots each.

Area of each sub-plot ($\frac{1}{3}$ whole plot); 0.0248 acre.

First Season, 1939

Crops; Spring wheat, barley, oats, flax, spring beans, potatoes.

Treatments

Superphosphate; None, 1 cwt. P_2O_5 per acre

Sulphate of potash (to potatoes); None, 1 cwt. K_2O per acre

Muriate of potash (to beans); None, 0.5 cwt. K_2O per acre

Fumigants; None, naphthalene (15 cwt. per acre), calcium sulphide (350 lb. per acre). Fumigants applied before ploughing in February.

Basal Manuring; 0.4 cwt. N per acre as sulphate of ammonia, to potatoes.

Crop Notes

Grass, 11 years old, ploughed; Feb. 1-13. Rolled; Feb. 13.
Harrowed; Feb. 20 - Mar. 4

Crop	Variety	Sown	Harvested
Spring wheat	Red Marvel	March 10	August 28
Barley	Plumage Archer	March 3	August 28
Oats	Star	March 3	August 14
Flax	Liral Monarch	April 11	September 13
Beans	Spring	March 3	August 28
Potatoes	Ally	May 20	September 22

Wireworms; Three sample estimates of the wireworm populations were made from series of 6" square soil samples. The first series was of 11 random samples from the field, the others were of one sample from each sub-plot.