

The results in 1913 correspond closely to the average of past years. Without exception the smallest amounts of each gave the lowest yields. The crops obtained increased quite rapidly with the amounts of seed used up to a certain point, after which the increase was small and irregular. It is the point at which this change takes place that appears to be the most profitable quantity of seed to use. Our results to date indicate the following rates of seed to be the best:—

Winter wheat non-irrigated, 60 pounds per acre.

Spring wheat non-irrigated, 75 pounds per acre.

Oats non-irrigated, 60 to 75 pounds per acre.

Barley non-irrigated, 75 to 90 pounds per acre.

Spring wheat, irrigated, 90 to 105 pounds per acre.

Oats, irrigated, 75 to 90 pounds per acre.

The results with barley on the irrigated plots have not been uniform, and it is therefore difficult to draw definite conclusions. From the data to hand, however, 75 to 90 pounds per acre may be recommended.

DATES OF SEEDING.

Experiments in dates of seeding wheat, oats, barley and flax have been carried out again this season. In previous years the rule has been for the early-sown grain to yield most. In 1913 the yields were not according to precedent, but were irregular, due probably to the unusual manner of precipitation.

Owing to the fact that it has been the custom to sow flax late in May and early in June, and that many farmers are under the impression that it would not be safe to plant it in April, the following table is presented giving the results obtained for the season just past and the average results of two seasons' work in this connection:—

DATES OF SEEDING FLAX (NON IRRIGATED).

Date sown.	Date ripe.	Yield per acre 1913		Average yield per acre 1912-13.		Remarks.
		Bush.	Lb.	Bush.	Lb.	
April 3.....	August 7.....	15	30	19	31	
April 15.....	August 7.....	19	46	23	41	
May 2.....	August 12.....	21	54	23	47	
May 16.....	August 23.....	20	50	25	17	Crop of 1912 frosted.
June 2.....	August 29.....	16	4	21	51	" " " "
June 16.....						Crop destroyed by frost both years.
July 2.....						" " " "

SOIL CULTURAL EXPERIMENTS.

The dry-land soil cultivation investigations incepted in 1911 were carried out successfully, but as yet few of the experiments have shown any marked results. Some interesting points, however, have been brought out, which may be briefly mentioned.

PRAIRIE BREAKING.

In this experiment, the results have brought out nothing that has not before been fairly well demonstrated. They strongly support our contention that sowing crops immediately after breaking is unprofitable, and point out that the most advisable and practical method of procedure on new land is to break the sod in the spring and allow it to lie till the following season before cropping.