of departmental projects. The superintendent was in direct charge of both the Agricultural school and experiment station, and assumed specific charge of the drainage work and of co-operative work with school students and farmers in the Red River Valley. This plan brought extensive additions to the station work, and has already succeeded in making the station a clearing house for the solution of vexed questions that arise in connection with farming in Northwestern Minnesota, which it was originally intended the experiment station should become. With the completion of the drainage system, this new work was made possible although many handicaps and drawbacks still had to be met. The problems of lack of surface drainage, of foul weeds, or general adaptation to the new work were met, however, and the station has taken forward steps which are increasing every year.

EXPERIMENT IN CROP PRODUCTION.

At the present time, the experimental work embraces, besides the drainage investigations which have been outlined, the following lines of work: In the agronomy section, there is work in cultural methods with farm crops, including rate of seeding wheat, oats, and barley, using six rates for each; date of seeding winter wheat, alfalfa, winter rye, and barley, using four dates for each; and plowing and sub-soiling, packing subsoil, a comparison of tractor and horse plowing and disking, dates of plowing and disking stubble before plowing.

The work in varietal tests of farm crops includes variety tests of all farm crops, with the object of getting the varieties best adapted to northwestern Minnesota conditions, and co-operative tests, with various divisions of the College of Agriculture, University of Minnesota, St. Paul, and the United States Department of Agriculture in testing wheat, for milling purposes; flax, for fiber; wheat hybrids, for rust resistance; and corn varieties.

FIELD CROP WORK.

The results of the season of 1915 at the Northwest Experiment Station indicate what is being done there along crop production lines. The station has been drained since 1909, and each year’s results are more and more indicative of the improved conditions regarding plant growth.

In 1915, the highest yield per acre of oats was 98.7 bushels in a rate of seeding plot. The lowest in this series was 80 bushels. The next highest was 95.3 bushels per acre in a fertilizer plot series, with the lowest yield in that series of 70.3 bushels to the acre.

A 16.3 acre field averaged 77 bushels, and a 28.5 acre field averaged 75.5 bushels, and a field of Early Roosevelt oats yielded 82.2 bushels per acre.

The highest yield of barley per acre, was 65.2 bushels in the fertilizer plot series. A field of 19.7 acres averaged 43.4 bushels per acre, and a field of 44.85 acres averaged 42.5 bushels per acre.

The highest yield of wheat per acre was 40.8 bushels per acre, and in the rotation series the highest yield was 32.46 bushels, and in the variety series the highest was 40.8 bushels per acre. These yields are the result of improved strains of seed, drainage, management, and soil condition.

Seeds and trees are distributed to co-operators, in order to determine the varieties of farm crops and trees best adapted to Northwestern Minnesota. In this work it will be necessary to distribute improved strains of seeds of cereals, forage, root, and vegetable crops, and hardy varieties of trees, grown at this Station, to test them on farms located where soil and moisture conditions are different. The sale of pure bred seeds and of nursery stock is included in this project. Tests on fifty farms were in progress in 1915. This number will be materially increased.

The corn breeding work has for its object the securing of corn with early maturity.

Several crop rotation plans are being followed, and a study made of resulting crop yields, soil fertility, and weed conditions.

Extensive fertilizer tests are being made in cooperation with Division of Soils, University Farm, St. Paul. These tests comprise an investigation of the effects of commercial fertilizers, with and without