

The last frost in the spring occurred on May 12 when a temperature of 29.9° was recorded. The first frost in the fall was on September 15, when the temperature dropped to 31°.

EXPERIMENTS WITHOUT IRRIGATION.

WINTER WHEAT.

Ten varieties were sown and came through the winter in good shape. Kansas Red and Dawson's Golden Chaff exceeded Kharkov this year in yield per acre by 2 bushels.

SPRING WHEAT.

Fourteen varieties were seeded April 6. The stand secured was thin, the straw of medium length, and maturing was hastened, making it difficult to secure data of value regarding the merits of the different varieties. Early Russian, yielding 25.5 bushels per acre, stood a little ahead of Marquis and Red Fife.

BARLEY.

Six-rowed:—Six varieties were tested. These were more adversely affected than the wheats. Odessa, which has proved the best for six years, was again considerably ahead in yield.

Two-rowed:—The two-rowed varieties did not yield as heavily as the six-rowed varieties. Gold, a new early maturing variety, proved better than any tested previously. Duckbill, a new variety on this farm, was affected with smut and came at the foot of the list.

PEAS.

Peas made only moderate yields. The straw and pods were short. Paragon, which has been ahead for six years, led in yield again this season by one bushel above any other variety. The smaller varieties, such as the Golden Vine and Chancellor, made a relatively better showing than usual.

OATS.

Oats did not do well. A few heads ripened on each plot early in the summer. The plots were left for the second growth to mature, consequently low yields resulted and no data of value were secured.

OTHER GRAINS.

One plot each of Winter rye, White spelt and Common summer made a good showing.

Spring rye was thin and almost a failure. Golden flax and two varieties of buckwheat were frosted previous to maturity.

EXPERIMENTS WITH IRRIGATION.

SPRING WHEAT.

Prelude which matured in 106 days was seeded April 6th, and yielded 31.25 bushels per acre though some shelled on the ground. Marquis, Red Fife, and Pioneer all ripened a week later, their respective yields being 53.7, 47.7, and 42.7 bushels per acre.

BARLEY.

Six-rowed.—These varieties made a good showing. Claude was in the lead with a yield of 97.5 bushels per acre. Guymalaye, a hullless variety, came second with 75 bushels. This variety is well suited for use in a temporary pasture.

Two-rowed.—Swedish Chevalier, which, although somewhat weak in the straw, is usually the best two-rowed variety here, gave 95.5 bushels per acre. The new variety, Gold, came second with 87 bushels. Duckbill proved liable to smut attack and gave only 63.5 bushels.