A METHOD OF LAYING OUT EXPERIMENT PLATS

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A few years ago additional land for agronomic experiments was obtained at the Lakin Experiment Station in West Virginia. The new area is adjacent to plats of the rotation experiment and located on the same type of soil—Wheeling fine sandy loam. A soil heterogeneity study similar to the one made of the plats now in the rotation experiments was made on the new area preparatory to establishing field experiments with fertilizers.

PLAN OF THE FIELD

The plan of the field containing the new area, together with the rotation experiments, is shown in Table 1. The roadways running parallel with the plat series are indicated by double lines, and cross roadways are indicated by single heavy lines. All roadways are approximately 14 feet wide.

The plats for the fertilizer experiments, like the plats for the rotation experiments, were laid out in double series, each plat being 68 feet long and 21 feet wide, thus giving a gross area of about 2/61 of an acre. At harvest time a border about 3 1/2 feet wide on the sides and ends of each plat is discarded, leaving a net area on which yield is based of 1/51 of an acre.

The blank plats in Table 1 appeared unsuited for fertilizer experiments and therefore yields were not obtained from them. The plats indicated in the last two sections of Table 1 with single numbers only are being used in the rotation experiments. The present soil heterogeneity study was made on all other plats shown in the plan.

CROPS AND METHODS

Three uniformity crops were harvested, as follows: Corn in 1927, oats in 1928, and wheat in 1929. Before planting the corn the entire area was limed at the rate of 2 tons of limestone per acre, but no fertilizer was applied while the uniformity crops were being grown. The yields per acre of stover and grain in the case of corn and of straw and grain in the case of wheat and of oats were determined.

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