

Annual Report of the Northeast Missouri Crops Experiment Field (1924)

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The Northeast Missouri Crops Experiment Field is located on the farm of Mr. Fred Burckhardt, seven miles north of Shelbyville, in Shelby County. The purpose of the Missouri Agricultural Experiment Station in establishing this field is to find out by careful experimentation the most productive cropping systems for the flat prairie land of Northeast Missouri. Beginning with a variety test of wheat in 1923-24, the College of Agriculture will continue the search for the best varieties of all crops suitable for the prevailing soil type of the northeast section, and will study how these varieties can with good treatment be best combined for profitable farming.

In 1923 the six most promising varieties of wheat were sown on this experiment field. The seed was bought from the approved seed list of the Missouri Corn Growers' Association and was the best obtainable in this State. The land was plowed early in August and before sowing was worked to a fine, firm seed bed. In plowing, dead furrows were made 35 feet apart to provide good surface drainage, which is necessary for successful grain growing on this soil. All varieties were sown on October 10, after the fly-free date for this section, and all were fertilized with acid phosphate at the rate of 400 pounds per acre. When the varieties were ripe their yields were estimated by experimental methods which eliminated all losses from lodging, shattering, weathering, and threshing. Therefore the yields reported in the table on page 2 represent the maximum yielding capacity of the varieties, under the conditions of growth which produced them.

Extremely wet weather during May and June made the 1924 season very unfavorable for wheat. Some of the varieties lodged very badly, Harvest King and Fulcaster showing the greatest weakness in this respect. In fact, these two varieties fell so flat that a large part of

their yield would have been lost in harvesting by ordinary farm methods. For this reason their yields as secured by experimental methods of harvesting must be heavily discounted. On the other hand, Poole, Fulhio, Michigan Wonder and Harvest Queen lodged very little and their yields as here reported would differ only slightly from those secured in harvesting by ordinary methods. Poole, in particular, stood up perfectly despite the wet weather. It is therefore considered by far the best variety in the test this season.

TABLE 1.—YIELDS OF SIX VARIETIES OF WHEAT ON THE NORTHEAST MISSOURI EXPERIMENT FIELD, (1924)

Variety	Bushels of grain per acre
Fulcaster	37.0
Harvest King	37.0
Poole	36.5
Fulhio	29.0
Michigan Wonder	26.0
Harvest Queen	24.6

The results of this test indicate three important conclusions. (1) When a good variety of wheat is well treated, it will make a fine yield even in a section whose average yield is so low that wheat growing is not generally considered profitable. (2) Poole was by far the best variety in a very unfavorable season, its yield being more than double the average yield of wheat in the group of counties which comprise what may be called Northeast Missouri. (3) Fulcaster and Harvest King, two varieties of considerable local popularity, are liable to lodge very badly in wet seasons on the flat prairie land of the northeast section.