THE INFLUENCE OF THE COMBINE ON AGRONOMIC PRACTICES AND RESEARCH

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The combine, or combined harvest-thresher, which was not found east of the Rocky Mountain states prior to the world war, is now used in nearly every grain-growing state in the Union. About 21,000 combines were manufactured in the United States in 1928. Within a period of 10 years in Kansas combine harvesting developed from an initial trial to the present situation in which more than half of the enormous wheat crop of that state is harvested with combines. The eastern advance of the combine did not stop at the border of the extensive wheat-growing region, but hundreds of the machines are now found on farms in the corn belt and eastern states. A combine has been used as far east as Delaware during the past four seasons.

Combines have been used in the Pacific Coast states since the early eighties. For many years, however, the statement was made and believed by agronomists, farmers, and others familiar with cereal production that the combine would not be practicable for harvesting east of the Rocky Mountains because the grain would neither stand long enough nor be dry enough for combining. This advice was given freely and was almost universally accepted. The scarcity of harvest hands during the war, however, awakened interest in methods of reducing labor. As a result a few venturesome but uninformed farmers in the Great Plains, who lacked the knowledge that "combines could not be used," bought the machines and were well pleased with the new method of harvesting. The development of the small prairie-type machine greatly augmented the success of the combine in the Great Plains.

It is to be regretted that in most states agronomists have permitted the farmers to lead the way in demonstrating the efficacy and economy of combine harvesting and in overcoming the difficulties encountered with the new method.

Cooperative investigations\(^3\) of combine harvesting in a total of 13 states during the past three years and observations in other states

\(^1\) Contribution from the Office of Cereal Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. Received for publication February 28, 1929.

\(^2\) Agronomist.

\(^3\) These investigations were conducted by the Bureaus of Agricultural Economics, Plant Industry, and Public Roads, of the U. S. Department of Agriculture, in cooperation with the agricultural experiment stations of Texas, Oklahoma, Kansas, Nebraska, Montana, North Dakota, South Dakota, Minnesota, Illinois, Indiana, Pennsylvania, Virginia, and Georgia.