NOTE
IDENTIFICATION OF WHEAT VARIETIES IN KERNEL
ANALYSIS SCHOOLS

In response to demands from millers who use wheat grown in the southern Great Plains, four kernel analysis schools were organized and given at Kansas State College during 1945. The need arose because certain new wheat varieties grown on a part of the acreage in this area are not equally suited to the purposes traditionally assigned to the market classes of hard red and soft red winter wheat.

Studies of threshed grain from hundreds of samples grown in this area revealed that several morphological characters of wheat kernels could be used with considerable accuracy in the identification of certain varieties. However, some varieties were found to resemble one another resulting in groups of indistinguishable varieties. As it so happened, each of these groups contained varieties more or less similar in gluten properties, hence, the group identification method proved practical as an aid in the selection of desired mill stocks. Varieties in the groups of hard winter wheat are as follows:

Group A: Tenmarq, Iobred, Pawnee, Comanche; often included are Nebred and Westar also
Group B: Turkey, Kharkof, all Turkey selections, usually Triumph, Blackhull and sometimes Westar
Group C: Early Blackhull, usually Wichita, and sometimes Triumph and Blackhull
Group D: Chiefkan, Red Chief, and selections from these two varieties

Each group and two others applicable to soft wheat are described in detail and illustrated by drawings and photographs in report No. 2 on "Kernel characteristics of Kansas winter wheat varieties" published by the Kansas Agricultural Experiment Station, April, 1945.

The beginners' school consisted of a 5-day training period. The schedule for each day included 2 hours of lecture, 2 hours for study and conferences, and 4 hours of laboratory work. Lectures included topics relevant to the growing, marketing, processing, and breeding of wheat. Speakers included agronomists, cereal chemists, and commercial people. This school was repeated three times, serving a total enrollment of 123 who came from nine states and included millers, grain dealers, and grain inspectors for the most part. An advanced 3-day school was offered once with an opportunity given those who had attended one of the beginners' schools to return for more training. Enrollment in the advanced school was 49 and included people from six states.

Students learned quickly to distinguish pure samples of varieties falling in groups A and D; groups B and C caused more difficulty as was expected since Blackhull and Early Blackhull have many traits in common. In examinations, identification of 90% of the pure sam-

1Contribution No. 377, Department of Agronomy, Kansas Agricultural Experiment Station, Manhattan, Kans.