HEIGHT OF STUBBLE AND STRAW YIELDS OF SMALL GRAINS

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A taller stubble usually is left when small grains are harvested with a combine than when harvested with a binder. A lodged crop, however, must be cut close to the ground, causing a large bulk of straw to pass through the machine. Consequently, in lodged grain the threshing capacity of the combine is much reduced and the threshing losses are increased owing to overloading of the straw rack and chaffer. The harvesting difficulties accompanying lower cutting with a combine seem to increase at an even greater rate than the increasing length of the cut stems. If many green weeds are encountered in low cutting, combine harvesting becomes very difficult.

In harvesting experimental plats of small grains where straw yields are taken, an attempt usually is made to cut the crop at a uniform height above the soil, but a plat often is cut high if stones, corn stubble, or numerous weeds are encountered, and is cut low if the crop is lodged. The height of stubble left often varies with the height of the crop.

The data here reported were obtained chiefly to determine the relative quantities of straw which must be handled by a combine when different heights of stubble are left at harvest, but the results also have a bearing upon the straw yields obtained from experimental plats.

EXPERIMENTAL METHODS

The experiments were conducted at the Indiana Agricultural Experiment Station, Lafayette, Ind., in 1927, and at the U. S. Department of Agriculture, Arlington Experiment Farm, Rosslyn, Va., in 1928.

Bundles of grain were harvested by hand and taken to a shed where the culms were cut off at definite intervals and the grain and straw (including chaff) in each section were weighed. The plants were all harvested at the soil surface except the wheat at Lafayette, Ind., which was cut about 6 inches above the ground. The heads were evened up on some of the material at Lafayette before the bundles were cut into sections, but at Arlington Farm all bundles were cut...