CORRELATION OF YIELD OF STRAW AND GRAIN IN OATS
IN NEW JERSEY

GEORGE W. MUSGRAVE

The relation between the production of straw and grain in oats has been indicated in several publications. In the study by Love (2), careful correlations are made showing the grain and straw ratios for three years on the plant breeding plots at Ithaca, New York. This study, which includes 52 varieties and their selections, shows quite conclusively a direct correlation between the yield of grain and straw under the conditions of this test. Scherffius and Woosley (6), reporting the yields of straw and grain in wheat varieties at the Kentucky experiment station, concluded that "there is no absolute relation between yield of straw and grain, but generally the higher yields of straw are associated with the lower yields of grain under normal conditions."

Leighty (1), in a study of individual culm length and grain yield, found significant differences in the grain and straw ratios for different varieties, but in general, a higher straw yield is associated with larger grain yields. These data are also for the latitude of Ithaca, New York.

It would seem to be quite possible that the relationship between the yield of grain and straw may be dependent upon the climatic conditions under which the comparison is made. Smith (7) states, with reference to oats, that "while the heads are forming...the crop must have cool and moderately wet weather to produce the best yields."