RELATION OF YIELD OF STRAW AND GRAIN IN OATS.¹

H. H. Love.

The question of the relation of straw to grain in small grains has been discussed to some extent in various publications.

Scherffius and Woosley² report the yields of straw and grain in a three years' test of thirty-one varieties of wheat at the Kentucky Experiment Station. They conclude “that there is no absolute relation between the yield of straw and grain, but that, generally, the highest yields of straw are associated with low yields of grain under normal conditions.” Myers³ has shown that for individual culms of wheat there is a high correlation between total weight of culm and weight of grain.

While conducting a large number of variety and strain tests of oats at the Cornell Agricultural Experiment Station the question arose whether there is a close relationship between yield of grain and yield of straw or whether these two factors occur independently.

The yield of straw is a very important consideration in selecting an oat variety. In the eastern states where straw is more valuable than it is in the great oat-growing sections it is very important to have a variety giving both a high yield of straw and grain. In other localities it is important to obtain as near a balance as possible between straw and grain.

While conducting these variety tests the yield of straw has been

¹ Paper No. 47, Department of Plant-Breeding, Cornell University, Ithaca, N. Y. (Received for publication in May, 1914.)