STATEMENT OF THE PROBLEM.

In Tennessee, as in other Southern States, a wide range of varieties of field corn is grown. Some are recognized as standard in the corn belt; for example, Reid Yellow Dent and Boone County White. Others are standard in the South, such as Hickory King and the prolifics—Albemarle, Cocke, Biggs, Mosby, etc. Varieties differ materially with regard not only to length of growing season but also to height of stalk and to foliage production. These differences are especially marked when the varieties are grown on rich land. On alluvial land at the University farm, Knoxville, Tenn., when Huffman grows 12 feet tall, Leaming will reach a height of about 8 feet. It is not surprising, therefore, to find that on the same kind of land different varieties require different rates of planting in order to produce both the largest yield and the best quality of grain. Also, as has been pointed out previously, varieties of similar length of season and habit of growth may differ appreciably in the rate of planting which gives best results.

A wide variation in productivity is found among Tennessee soils. On the same farm it is not uncommon to find uplands which produce