VARIABILITY IN STAPLE LENGTH OF SOME COMMERCIAL VARIETIES OF COTTON

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INTRODUCTION

The value of lint cotton is largely contingent upon certain of its marketable qualities. The length and uniformity of staple probably influence the marketable quality of lint cotton more than any other characteristic, with the possible exception of the grade. More emphasis is now being placed upon uniformity of length of staple than ever before, since uniformity is one of the most important characteristics contributing to the ultimate spinning value of the lint.

The object of this study was to determine the uniformity in the length of staple characteristic of a number of the important commercial varieties commonly grown in Texas. The experiment stations have helped the individual farmer to select intelligently the particular variety he should plant by testing some of the more promising strains and varieties on a comparable basis. The importance of staple length has been emphasized in these tests. However, length of staple determinations have usually been based upon a single massed sample of lint from each variety. These observations on the length of lint have been made by licensed cotton classers and reported along with the general results of the variety test. Data bearing upon the relative uniformity of length of staple for the different varieties have not been available as a basis for improvement of this character.

METHODS USED

In 1925 and 1926, samples of lint were taken from approximately 50 individual stalks within each of 16 varieties. These stalks were harvested from plats grown under uniform conditions and were taken consecutively as they stood in the row in order to secure a representative sample. The length of staple measurements for 1925 were made on ginned samples of lint, while measurements for 1926 were made with the lint still on the seed. Since the 1925 samples were ginned on a roller gin and "gin cutting" practically eliminated, the measurements for each of the two years were considered to be the true length of the fiber. Thus, the records on the individual stalks within each variety furnished interesting data from which the variation in length of staple may be studied.

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