THE EFFECT OF FERTILIZERS AND RAINFALL ON THE LENGTH OF COTTON FIBER

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The spinning value of cotton fiber is influenced by its length, strength, and "character," or body. The length of the fiber is of special importance since this property determines to a large extent the kind of fabric that can be made from it. The importance of the length of fiber, or lint, is reflected in the price paid for different lengths of lint on the cotton exchanges throughout the world.

The length of fiber, although a varietal characteristic, is influenced by environmental conditions, especially the amount of moisture in the soil during the period the fibers are developing. It is thought that the fertility of the soil also influences the length of fiber, but so far as the writers are aware no definite data on the effect of fertilizers on the length of lint have been reported. Since the length of lint is of great economic importance, studies were begun at the Texas Agricultural Experiment Station several years ago to determine the effect of fertilizers on the length and other properties of cotton fibers. It is the object of this paper to report some of the results on the length of lint obtained in these studies.

METHODS

The work reported here was conducted on the Experiment Station farm, College Station, and at Substation No. 2, Troup, Texas. The

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