3. THE EFFECT OF SPACING ON THE YIELD OF COTTON

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PRELIMINARY CONSIDERATIONS

Since the advent of the boll weevil the spacing of cotton has received increased attention, because spacing influences earliness, closely spaced plants fruiting somewhat earlier than widely spaced. Precise comparison of data from different states on the spacing of cotton is made difficult by the lack of uniformity in the conduct of the experiments. For example, the width of row used has been from 3 to 5 feet. In the older experiments the closest spacing was frequently only 1 foot, the next spacing was 2 feet, and a third spacing of 3 feet completed the series. In the more recent studies 3-inch variations have been commonly used. Different varieties of cotton have been employed, but this factor is probably of no special bearing on the results. The assumption has been generally made, however, that soil and climatic conditions have a marked effect on the spacing which should be allowed; in short, that they are the factors of major importance.

In order to place the available data on a more readily comparable basis, the author has taken a 3 1/2-foot row as the standard and has recalculated to that basis the spacings in experiments made with 3-foot and 4-foot rows. Data from rows wider than 4 feet were not included. In the interpretation of the data all yields were placed on a lint-cotton basis and the "best" spacing in a year's trial was determined by averaging two or more spacings which gave yields within the limits of experimental error. Occasionally, however, the high yield of the closest spacing, together with a consistent reduction in yield with increased spacing, was assumed to warrant the selection of the closest spacing as the "best." Also, in some instances, the irregularity of the plat yields would not allow the rules to be strictly followed, and a somewhat more liberal interpretation was made.

Plat yields of any year were considered the same within the limits of experimental error according to the following standards:

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