

# Georgia Coastal Plain Experiment Station

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## Cotton Production in the Coastal Plain of Georgia

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## INTRODUCTION

Cotton has always been and will probably continue to be the leading money crop of the Coastal Plain. With the advent of the boll weevil, it has been more difficult to keep up the yields, but many Coastal Plain farmers are overcoming the pest and making as much cotton as they ever did. This they are doing by practicing crop rotations, introducing winter and summer legume crops, using fertilizers judiciously and combatting the weevil. Those who have stuck to one-crop, all cotton farming, have not been so fortunate because the fertility of their lands has gone down.

Not only individual farmers but whole sections of the Coastal Plain are making larger than average yields and better quality cotton through the use of more intensive methods on fewer acres. This has resulted in a lower cost per pound of cotton produced and consequently larger profits to the grower. Combined with a live-at-home farm program such cotton growers are not only making cotton at a profit, but are practicing the kind of farming that is beginning to build up the fertility of the land.

Experimental work with cotton at the Coastal Plain station was begun in 1921 to determine the varieties best suited to the conditions of this section; the amounts and kinds of fertilizers that give best results; the effects of lime and green manures on yields; the sources from which nitrogen and potash may be most economically obtained; comparative worth of high and low analyses fertilizers; effect of spacing on yields, and the extent to which calcium arsenate may be used profitably for boll weevil poisoning.



## CLIMATIC INFLUENCES ON COTTON PRODUCTION

The amount and distribution of rainfall, humidity, sunshine, temperature and winds are important factors influencing production. The effects of climate on cotton production are, in fact, of such importance as to determine whether the yield will be good or poor.

The annual rainfall of the Coastal Plain is usually ample for the needs of cotton though its distribution is sometimes such that the crop is actually damaged by its excess or deficiency. Excessive rainfall and low temperatures (in April and May) just after planting, often result in poor stands. An ideal season at that time would be light, occasional rains and high temperatures. Heavy rainfall of July and August increases vegetative growth, decreases fruiting and delays maturity. This latter climatic condition has most seriously affected cotton production in the Coastal Plain from 1921 through 1928.

The ideal cotton growing season would ordinarily be designated a dry season. Short droughts broken by light rainfall contribute much toward maximum cotton yields, while too heavy rainfall at any time during the growing season takes its toll from yields.

Table I gives the annual, monthly and 10-day distribution of rainfall from 1922 through 1929.

