PLANT breeding investigations in cotton require, of necessity, an approach involving considerable time, due to the evident fact that in the temperate climates of the United States but one field crop a year can be produced. In the design of a program of study planned to establish a quantitative basis for the poorly defined character called "quality" in American Upland cottons, *Gossypium hirsutum*, it became apparent that no less than 10 generations would be adequate to accomplish this end. The program called for intervarietal hybridizations to establish widely variant F₂ populations from which selections of new genic combinations could be made. Since the plan required several backcross generations to fix desirable genetic complexes, and since it appeared advisable to self each backcross generation, one can readily see that the time period necessary to achieve this purpose would approach our estimate.

In order to condense this proposed schedule, a new departure from conventional plant breeding procedure was sought. Since each generation should be of sufficient size to lend itself well to a statistical analysis, the use of conventional greenhouse facilities would be inadequate to enable the production of a second generation in any given calendar year. With these considerations in mind, it appeared advisable to secure an environment that would enable the production of a field crop of cotton during the winter months, thereby reducing the time of the experiment to half. The reversal of seasons in the Southern Hemisphere suggested winter culture of cotton in a region of southern latitude comparable to that of our American cotton belt. However, upon investigation of climatological and edaphic data of likely regions in the Southern Hemisphere and tropical zones of the Northern Hemisphere, it appeared advisable to select in the economy of time and money an area meeting the environmental growth requirements for cotton as close to our permanent research station in Dallas, Texas, as possible.

Such a region was located in southern Mexico on the western coastal plain, and two winter crops of experimental cottons have been successfully harvested from this area. This region extends for about 450 miles along the Pacific coast of Mexico, approximately equally distributed north and south of the port city of Acapulco, and is quite narrow, ranging from ½ mile to not more than 4 or 5 miles in breadth. The climate of the area is characterized by hot rainy summers and warm dry winters. A tropical climate prevailing the year around maintains a diverse, though limited, agricultural economy. Corn is the staple cereal and is grown extensively, climatic and soil conditions enabling three crops a year. Citrus fruits, coconuts, and sesame seed are grown for commerce, while truck and home garden crops are harvested in almost every month of the year. Some cotton is grown in the foothills bordering the tropical coastal lowlands; but due to the ravages of insect pests, primarily the boll weevil, cotton production in this area remains limited.