HIGHLY profitable increases in peanut yields from the application of lime to Alabama soils were reported by Duggar and Funchess (13)2 as early as 1911. These tests, which were conducted in central and southern Alabama, showed an average increase for lime of 318 pounds of peanuts per acre (24%), with only 1 location out of 11 tests failing to give a response. In 1917, Duggar, Cauthen, Williamson, and Sellers (14) reported on a series of experiments conducted from 1913 to 1915 that showed yield increases for lime ranging from 208 to 538 pounds of peanuts per acre.

Although these two reports presented rather conclusive evidence of the value of lime for peanuts on some Alabama soils, a negligible amount of lime in any form had been used by the peanut growers in Alabama prior to 1935. The use of limestone to neutralize mixed fertilizers from 1936 to 1945, however, has added to the soils of the state approximately 667,905 tons of CaCO₃. Approximately 87,525 tons of this lime has been applied to the soils of eight southeastern Alabama counties, the major peanut-producing section. If uniformly distributed on all of the cropland in these counties, this tonnage would provide only 146 pounds of CaCO₃ per acre. It is fairly certain that little of the limestone in mixed fertilizers has been applied directly to the peanut crop because it has not been a common practice with the growers to apply a complete fertilizer to peanuts. Prior to 1940, however, peanuts generally were rotated with cotton, corn, and other crops that received complete fertilizers. Since 1941 peanuts have been grown in successive years on the same land on a large acreage in the major peanut-producing counties in Alabama. More farmers have used a light application of superphosphate or 0–14–10 than have used any other fertilizer on peanuts; hence, relatively little lime as such has been used.

In contrast to the early cooperative tests, which showed response to lime by peanuts, tests on the Wiregrass Substation (located in the peanut section of southeastern Alabama), from 1930 to 1945, showed no need for lime. Moreover, in a series of top-dressing experiments conducted in 1940, light applications of gypsum and limestone pro-