APPENDIX IV. - Soil Survey Methods.

In making this soil survey, the surveyors listed at the front of this report walked over the land and bored holes at intervals varying from 3 to 10 chains apart, depending upon the complexity of the soil pattern. The soil profile at each spot was exposed with a 4 inch Jarrett soil auger, usually to a depth of 4 feet, but sometimes to 7 feet, and the soil classified into its soil type. To do this, the soil surveyor examined the various horizons in the soil profile and noted their texture, colour, thickness, and the presence of fine stratification, clay surfaces, stoniness, friability and iron concretions.

The soil type at each point examined was marked on an aerial photograph (scale 1 inch to 6 chains) and a boundary drawn to show where one soil type changed to another. Surface features such as change of slope, depressions and rises, which often show on aerial photos were helpful in determining where the change occurred. However, it should be appreciated that a soil boundary line shown on a soil map represents a zone of transition. This zone may be narrow, meaning that the soil change covers only a few feet or yards, or it may be gradual, with the transitional zone extending over one or more chains.

Preliminary soil maps at a scale of 1 inch to 10 chains were constructed by transferring the soil boundaries from the aerial photographs onto accurate photo-mosaics, and adding some parish names and boundaries, and some allotment numbers.

It has been necessary to reduce the size of the soil maps in this bulletin to the scale of 1 inch to 20 chains. At this scale, the smallest area that can be shown on a soil map is about J acre, i.e., 2 chains across. This means that any area shown as a single soil type may have small areas of one or more soil types with it, but not to a greater extent than about one sixth of the occurrence. Where the other soil type (or types) covers more than one sixth, but not more than one third, its presence has been denoted by an inscription on the map. Should the second soil type exceed one third, the occurrence has been mapped as a complex, and the symbols of both soil types have been shown on the maps.

Where soil types are intermingled, it has not always been practicable to make separations, even thou h the individual soil types occupy areas greater than ½ acre. Consequently, in some or the complexes mapped, the areas of the component soil types are much greater than this.