As an introduction it probably will not be amiss to give a short description of that portion of South Dakota east of the Missouri River as most of the work has been confined to that section of the state. The topography is flat to undulating, a few ranges of morainal hills having a rolling topography to break the monotony. Except for hand planted groves there are very few trees except along some of the streams and lakes. This timber is usually small and consists of some oaks and cottonwoods. The streams are small compared with those in states which have heavier rainfall. The South Dakota streams are sluggish with moderately wide floodplains. The ascent to the upland is abrupt. The elevation is between 1000 and 1500 feet above sea level. The average is about 1200 to 1300 feet. Except for five or six counties in the southeastern part of the state and some Lacustrine soils, this part of the state is glaciated.

One large area of Lacustrine soils is found in the eastern half of Brown County and the northern part of Spink County. This area lies within the old glacial Lake Dakota basin. The southeastern soils are loessial. The principal loessial soils are Knox and Marshall. Most of us have been acquainted with these soils during some period of their evolution.

The greater bulk of the soils belong to the Barnes series. These soils have dark Brown or almost black surfaces four to seven inches deep. The subsurface soil is brown and extends to a depth of about sixteen or twenty-two inches where it passes into a yellow or grayish yellow soil having a high per cent of lime. This is known as the zone of lime accumulation and extends to a depth of about thirty four or forty inches where it passes into a yellow colored soil with a few gray and bright brown mottlings. This is more friable than the lime accumulated zone. The zone of lime accumulation is apt to become rather compact during dry periods, but that above has a uniform nut granular and columnar structure. The Williams soils of which, there are only a small amount have a lighter colored surface soil. The Beadle soils are similar to the Barnes soils except they have a heavy compact layer just above the zone of lime accumulation. This heavy layer varies from two to ten inches in thickness. The terrace soil corresponding to the Barnes soils are classed as Bearden. Those corresponding to the Beadle has not yet been given a series name. The lacustrine or lake bed soils are classed as Bearden or as Fargo soils. The river flood plain soils are mostly Lamoure. The Lamoure and Fargo