OUTLINES AND SYSTEMS OF COLLECTING ADEQUATE FIELD NOTES.

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The activities of soil survey field work fall naturally into two main divisions, both closely related and interwoven. One includes the activities involved in making the soil map which when completed, shows the location and approximate extent of each kind of soil, while the other consists of compiling a report which gives all the required information concerning each soil type and phase individually, with their relationships to agriculture in general, with such other information as has a bearing on the agricultural operations within a given area.

The work of making the soil map requires considerable attention to many details. Many of these details involve a considerable amount of physical effort, while the construction of the soil map, especially where a base map has to be made with a plane table outfit requires a knowledge and practice of many subjects. The soil surveyors work in the field is largely done through the practical application of a variety of scientific branches, all closely related, involving therefore some knowledge of engineering, geology, chemistry, botany, physics, practical farming, economics, more or less diplomacy, and last but far from least a good understanding of the mechanic arts necessary in guaranteeing himself so far as possible a means of uninterrupted transportation throughout the day with the noble tin steed so universally used in soil survey work. Altogether, therefore, the soil surveyor has a vast amount of work to do requiring a knowledge of many things and necessitating considerable physical as well as mental work. There are so many details to look after in preparing the map and so much physical labor involved--the later tending to retard mental work—that many of us are inclined to delay or put off to some more propitious time the gathering of our field data. Especially is this true as regards the specific study of the soil section in all its characteristics and relationships, as well as in collecting both direct and comparative data along the lines of crop production the crop adaptations of the various soil types and soil phases.

Therefore, on the completion of the work of mapping the soils in an area, we often find ourselves without sufficient notes and likewise without sufficient information for writing up our reports in such a way as would present all information which should be secured. We often depend too much on superficial examinations of the soils and fail to note characteristics of importance in soil descriptions. This has been to some extent due to the pressure the field man feels he is under to cover much ground and get as much area completed as possible within a given time. Therefore we seem to have the tendency to forget that we are scientists studying soils and are inclined to devote our greatest efforts to map making. Soil surveying is not an exact science. It is, however, a science. It consists in the gathering of facts in the field from many sources, and these should be secured from every source possible even though in some cases we do not know as yet whether some of these would have any bearing whatever.