The use of soil maps and other available soil information has given rise to considerable concern to many agencies who are attempting to guide the farmer in adopting better soil management and land-use practices. This is especially true of extension specialists and agents who are working in areas where soil surveys have been completed and other soil data gathered, or in areas having soils with similar characteristics to an area that has been surveyed.

In making any land-use adjustments, it is necessary first to consider soil units as shown on a soil map and their adaptation as a basis for any such adjustment. The usability of a soil map for making definite land-use adjustments on a farm will be governed more or less by the size of units which have been represented on the map. The scale, of course, will determine the size of the mappable units. A map on a scale of one inch to the mile, which will show only a few soil units smaller than ten acres in size, would not be suitable as a basis for individual farm planning. While a map on a scale of 660 to 1000 feet to an inch would likely give soil units on areas as small as would be necessary in making any adjustment on an average sized farm. The mapping of small units is exceedingly important in areas where special type farming is followed. For instance, where tobacco is grown and governmental allotments are in tenths of acres and the soil requirement of tobacco very exacting, it is quite important to the farmer that he locate the area on his farm which is best suited to the production of high quality tobacco. Also, on the large scale, the soils can be subdivided into all the types, phases and complexes which are necessary in showing the internal soil characteristics as well as external soil features which are important in planning the use of the farm. Among the external soil features which are very important in farm planning are: relief, stoniness, degree of erosion, limestone sinks, rock outcrops, etc.

Unless the one who is making the farm plan has either made the soil map or is well acquainted with the soil types, it is necessary to go back to the soil survey report and other available data to get the information about the soil. Some of the characteristics obtained from the report are: texture of horizons, depth of profile, nature of parent material, and, usually, chemical and mechanical analysis of the soil. The inclusion of productivity ratings greatly aids in the use of the soil map and report as a guide to proper land use.

Last year a report was made on the procedure followed in a watershed area in southwest Virginia, which was set up as a demonstration of the proper use of technical soils information as a basis of land use adjustment. This watershed area, established for the purpose of measuring the effect of high analysis phosphate fertilizer on farm practices, together with its effect on the welfare of the people in this area there are approximately fifteen operating farmers, each of whose farm is known as unit demonstration farms. It is hoped that information obtained through better soil management and land-use practices on these unit farms will have influence on adjacent farms, communities, and counties.

In working out land use and management adjustments, each farm is considered as an individual unit. In this way it is possible to analyze each part of the business or enterprise in relation to the adjustments that are to be made. It is therefore, less likely that some important which contributes toward the success of that farm will be overlooked. Emphasis put on points of less importance might be possible to make certain adjustments on a grain farm that would not be possible on a livestock farm or vice versa.

As a basis for working out individual soil maps have been prepared for each farm. These maps are made on a scale of one inch equals 1000 feet. This scale allows the inclusion of all soils and to proper land use.