The Beginning Soils Course, Particularly the Laboratory Phase, With Suggested Aids

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In discussing the laboratory procedures, methods, and suggested aids to be followed in the soils laboratory courses that accompany the beginning courses in soils in American colleges, it will be necessary for me to draw heavily upon our experiences at Clemson College. It will also be necessary for me to refer from time to time to the theory course, of which soils laboratory study is a part, and I shall take the liberty of doing this during my discussion. The beginning soils theory, laboratory, and field instruction should, and usually does, constitute the same course.

Agronomists, and in fact most college-trained agriculturalists, will agree that one of the most fundamental, if not the most fundamental, agricultural course offered in the American colleges of agriculture is the beginning course in soils. In fact, to a large degree, the agricultural courses in most of the curricula of American colleges revolve around an introductory course in edaphology. I use the word edaphology, rather than pedology, purposely, for the beginning soil course as usually given lays emphasis upon the study of the soil as it is related to the production of plants and animals. This is as it should be, for agricultural students are more interested in the study of the soil as it relates to crop production than they are in the study of the more fundamental aspects of soil science.

It would appear that in an ideal agricultural curriculum the beginning soils course should precede all field crop, horticultural, and animal courses. However, this procedure is rarely followed. A study of the curricula of the American agricultural colleges made by the speaker just prior to World War II showed that the beginning course in soils was most commonly given during the sophomore year. I believe this is still true. Nevertheless, it would be expected that students who had had a beginning course in soils should be much better prepared to understand and to derive more from subsequent courses in field and horticultural crop production. And in a somewhat analogous manner, students who have successfully passed courses in crop production should derive more from subsequent animal courses, such as feeds and feeding and animal nutrition.

For agricultural college students it is imperative that the beginning course in soils should follow a year's course in inorganic chemistry and should preferably follow, or be taken along with, courses in physics, geology, botany, and organic chemistry. It is very desirable, however, that the beginning course in soils come early enough in the curriculum to allow the beginning soils course to be used as a prerequisite course for more advanced courses in soils and crops.

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