LABORATORY TEACHING IN BEGINNING COURSES IN CROPS AND SOILS

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Laboratory teaching in crops and soils merits consideration at this time because it is essential for the future development of these sciences that advancement in teaching keep pace with advancement in research. If teaching methods do not advance in proportion to advancements in the field of research and if the teaching personnel is not of so high a standard as that of the research staff, ultimately the lack of proper training of our students due to poor teaching will be reflected in the quality of research. The successful teacher must lay the foundation for future attainments in research.

Within the last three decades much progress has been made in the sciences of crops and soils, and in closely related sciences. An enormous quantity of accurate subject matter has been made available through research for the use of the teachers of these sciences. Not only have many new facts been established, but many theories that were accepted as facts two or three decades ago have been found to be untrue. We may well ask whether teaching methods have kept pace with research, or whether, through placing so much emphasis upon research, teaching has been neglected.

In discussing the teaching of beginning courses in crops and soils, consideration should be given first to personnel or the teaching staff, second to the subject matter, and third to the methods of presentation. Of these three, the personnel is of greatest importance. Regardless of the quality of the subject matter or the method of presentation, a course cannot be taught to the best advantage of the students unless the instructor has the personality and other qualifications that are essential for success in teaching. As much emphasis should be placed upon training men for teaching as training them for research.

In general, during the last 20 to 30 years, the best trained, most enthusiastic, most inspiring, and most ambitious men working in the fields of crop and soil sciences have devoted most of their time, energy and thought to research. It is only natural that such men have been engaged in research because in this field there is an opportunity to establish some new fact, to develop a new method, to originate a new variety, or to do any one of many other things that will result in public recognition through technical and popular publications. The teacher, on the other hand, has little or no opportunity to establish new facts or to originate new varieties, or to do other things which will bring him such recognition. He must be satisfied with the development of men and with seeing the men he has trained achieve success. The man engaged in research has more frequent opportunities to enter other fields of activity than does the man who devotes all of his time to teaching. Also, in general, the field of research is

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