Adjustments in Agriculture—A Challenge to Agronomy

II. Implications to Resident Instruction

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Our keynote speaker has given us a broad perspective of some of the dynamic changes that are taking place in agriculture. Certainly all of us need to re-examine our thinking and actions in light of this rapidly changing scene. I will confine my remarks largely to the resident instruction program, especially the undergraduate program, and to a lesser extent to research.

Demands on Our Future Graduates in Agronomy

We need to give consideration to what knowledge, skills, and attitudes future graduates will need to compete successfully in the world of today and tomorrow. We might re-emphasize a few of these factors.

Agriculture is much more than farming. There are 23 million persons employed in agriculture in the United States. Of this total, 8 million are on farms and ranches, 6 million are producing feed, fertilizer, seed, and insecticides and serving farmers with credit, electricity, extension service, and SCS aid, and 9 million are in marketing, processing, packaging, and distributing farm products. Some call this agri-business.

Both science and vocational skills are expanding at a rapid rate. We need only to think back to 1862 when the Morrill Act was passed. All of us are conscious of rapid achievements even during the past 10 to 15 years. All indications point to a continued rapid increase in both science and vocational skills.

With farmers becoming a minority group and with problems becoming increasingly difficult, there is an increasing demand for "broad-gauge" leadership in agriculture. Along with this is the increasing demand for leadership in a democracy. We are in a constantly shrinking world in which democracy—as we know it—is in a minority role.

Some Questions for Consideration

I will propose a series of questions that consider some adjustments that are needed to bring our educational program into better relationship with reality. I would be presumptuous to indicate that these are original or that I know the answers to them. I am sure that many of you have struggled with many of these questions. Some of you have arrived at satisfactory answers to achieving solutions. Obviously, both the degree and kind of adjustments needed will vary widely. Here are some of the questions I propose and some suggestions on them:

1. What is the proper balance of emphasis on vocational training—the art and practice of agriculture—and the science of agriculture in our universities?

We need to remember that the Land Grant College idea originated with the introduction of vocational or practical emphasis as contrasted to strictly liberal arts in our colleges and universities. Yet, with the enormous increase in both scientific and vocational skills, some choices are clearly indicated.

C. H. Bostain suggests four possible choices:

1. Increase rate of learning,
2. Increase time for earning a B.S. degree,
3. Increase opportunities for specialization,
4. Increase opportunities for internships and cooperative education.

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