

PROFESSIONALISM VS. SCIENTISM in agricultural education



N. T. COLEMAN
Associate Dean
College of Biological
and Agricultural Sciences
University of California
Riverside

THE PROSPECT OF federal legislation to regulate pest control activities—with its implied need for educated professional pest control operators—again raises questions about the purpose, content, and scope of the University's agricultural instructional programs. The central choice is between professionalism and scientism as a means, and between practice and research as the final goal. Recent educational history shows almost exclusive devotion to science and research—to molding students into academic patterns. The future may require different emphasis and approach. At the very least, circumstances require a careful look at educational needs set against a best vision of the future, instead of a fond attachment to the past.

A committee of the Division of Agriculture, National Association of Land Grant Colleges and Universities, proposes pest management curricula leading to bachelor's and master's degrees. The curricula aim at turning out plant doctors to diagnose problems and prescribe remedies. They include three areas of emphasis: (1) biological, physical, and social sciences; (2) an integrated block of courses oriented around pest management, and including principles of entomology, nematology, plant pathology, and weed science; and (3) clinical experience and internship.

Implementing the instruction under category 2 will require an interdepartmental, interdisciplinary approach, which imposes no new problems of educational philosophy or policy. Category 3 is another matter. It will have to be accepted that laboratories dealing with spray rigs are as legitimate as those on biochemical instrumentation; that field courses on pest management practice deserve credit as well as those in field biology; that people other than Ph.D. research scientists are appropriate and necessary parts of instructional teams. Another implication of the pest management

proposal is that some unit outside the University may set curricular content and standards.

Those last points would not be questioned in schools of medicine, engineering, administration, law, or even fine arts. University people in agriculture will probably get hung up on some or perhaps all of these ideas.

Many oppose professionalism in agricultural education on grounds that students and their prospective employers may be shortchanged. Such arguments are sound only to the extent they can be supported by fact. They are not automatically validated by weight of academic opinion. Another argument against professionalism suggests that the University may lose prestige relative to other segments of higher education in California if it embarks on such programs. An answer to this might be that roles change with the times, that there is an advantage in periodic examinations of society's needs, and that the University can perform this function better than anybody else in sight.

The Gries report on agricultural education in California shows that gaps exist between instructional programs at the State Colleges and at U. C. It makes sense to look for ways to fill the gaps, rather than to assess blame for them, or to debate which institution is better in touch with reality.

People planning and conducting instruction at U. C. will have to face the same tough questions confronting planners of research: Abstraction or mission? Science or practice? Direction or freedom? The answer to all these questions probably is "both." The Division of Agricultural Sciences is big enough, diverse enough, and competent enough to do the whole job. To actually get it done will require three things: people willing to think hard and clearly about the future; a minimum defense of *status quo* for selfish or thoughtless reasons; and Divisional unity.