Horticultural Curricula can Benefit from National Initiatives

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Two primary purposes of education are to satisfy the quest for knowledge and to provide educated and trained persons to serve the needs of society. These purposes also constitute an important part of the mission of a horticulture teaching program. In recent years, this mission has become more difficult to achieve, being challenged by declining enrollments, reallocation of positions, operating resources for teaching, inadequate facilities, and the diminishing half-life of new knowledge brought about by rapid advances in science and technology. The challenge also comes from institutional and societal pressures to look beyond disciplinary boundaries in both teaching and research.

For more than a decade, horticulturists have voiced their concern through ASHS about the profession’s capacity to develop and maintain a “cutting edge” status for horticultural education programs and teaching. Concern has also been expressed about filling horticulture positions with “non-horticulturists.” ASHS members have begun to address these issues, recognizing that the quality of the curriculum sets the ultimate level of excellence. It must be current and relevant, and taught with skill and effectiveness.

Two recent national initiatives, one by ASHS and one by the USDA, together with the deans of instruction in colleges of agriculture, are providing strong direction and leadership for addressing these problems. The ASHS initiative, the implementation of a Curriculum Standards Committee, should lead to strong mutual support within the Society.

The second initiative, however, has equally important implications for support and direction from outside the Society. It is the National Agriculture and Natural Resources Curriculum Project (“National Curriculum Project”), directed by Richard H. Merritt and sponsored by the USDA, the Land Grant Colleges, Resident Instruction Deans (RI- COP), and the American Association of State Colleges of Agriculture and Renewable Natural Resources (AASCA RR). Begun in 1983, the National Curriculum Project results from a national assessment of agricultural faculties’ perceived unmet needs in the curriculum. Its value to horticulturists lies in the guidance it offers to those involved in curriculum renewal.

The assessment grew out of concern about retrenchment and the need for continued innovation and change expressed by the National Higher Education Committee, organized by the USDA Joint Council on Food and Agricultural Sciences and the USDA Office of Higher Education.

The assessment was based on a survey conducted by task force representatives from RICOP, AASCA RR, the National Higher Education Committee, the USDA, and business and industry leaders. The following 12 course areas of high priority were identified as being inadequately represented in most agricultural and natural resources curricula:

1. Computers in Agriculture
2. Systems Approaches to Food, Agriculture and Natural Resource Problems
3. Ethical Aspects of Food, Agriculture and Natural Resource Policy
4. Cultural and Social Aspects of Renewable Natural Resources and Agricultural Systems
5. Problem Solving
6. Energy Use in Food and Agricultural Systems
7. Integrated Reproduction Management
8. “Man and His Food”—Biological and Consumer Aspects
9. Systems of Integrated Pest Management for Crop Protection
10. Leadership
11. Internships and Cooperative Education
12. Student Projects

In 1984, the National Curriculum Project Task Force recommended that the highest priority areas to be developed as courses or course modules with supporting curriculum materials and training workshops. The “computers in agriculture” area was not included because the assessment showed that most institutions already had begun addressing that need. The Task Force instead addressed numbers 2 and 3; “Systems . . . ” and “Ethics and Policy.” Since that time, support for these areas from external sources and from the universities involved has amounted to $663,134 for course and curriculum development and for faculty and administration training workshops.

Course and curriculum materials development are currently focused on two areas; a) Systems Approaches to Food, Agricultural and Natural Resource Problems, and b) Ethical Aspects of Food, Agriculture and Natural Resource Policy. A 2-week faculty workshop followed by a 3-day administrators workshop was held at Colorado State Univ. in May and June 1986. At the workshop, a workbook with course and curriculum materials on systems approaches was disseminated, and faculty were trained in their use. A systems textbook and an instructor’s manual will be published by Wiley in Aug. 1987. The faculty workshop was attended by 42 faculty members in 15 discipline areas (including horticulture) from 25 colleges and universities. The administrators workshop included 29 deans, department heads, and other administrators.

Additional workshops in each of these course areas for 1987 include a 1-week “Systems” workshop for faculty in Raleigh, N.C. in May, followed by a 2-day faculty and administrator workshops at California State Univ., Chico, to be held in November and a 2-week faculty and a 3-day administrator “Ethics” workshop in Lexington, Ky. in June.

What’s in the National Curriculum Project for horticulturists? Plenty! First, a review of the 12 course areas reveals that 11 of them have direct application to horticultural curriculum development. Second, the list is a national assessment that constitutes a valuable reference for curriculum development. Third, the workshop materials and training...
can be infused into existing courses and serve as a guide for new course and curriculum development. Finally, the workshops offer valuable opportunities for horticultural faculty to gain insights and assistance that can help them mold their curricula as appropriate to meet local needs.

For example, the rapid advances in U.S. science and technology require us as scientists and teachers to look beyond our individual fields of expertise for scholarly exchange and support to round out the knowledge base from which we work. Cross-sectional and interdisciplinary research and education thrusts are a fact of the future and offer unparalleled opportunity for horticulturists to use this knowledge base to strengthen the curriculum.

Eleven of the 12 course areas (no. 6 applies to animal science) have direct application to horticulture and encourage individual course strengthening through the incorporation of relevant science, technology, social science, and humanities. Additionally, reordering the curriculum to require horticulture majors to enroll in liberal arts courses to meet degree requirements would reinforce the course areas emphasizing Systems Approaches, Ethics and Public Policy, Cultural and Social Aspects, and Man and His Food.

The outcome of the National Agriculture and Natural Resources Curriculum Project constitutes a valuable resource to horticulturists for curriculum development. We should take full advantage of it!

**Literature Cited**


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**LETTERS**

"ORNAMENTALS"

Three cheers for Tukey for pointing out why we should no longer use the word "ornamentals" (HortScience 22:9, Feb. 1987) to describe landscape plants, with their many functional uses that transcend the merely ornamental. Some of us have been uncomfortable with the word for a long time. Now it is time to discipline ourselves to the use of more appropriate language—if we expect our products and services to receive the respect they deserve.

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