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Production Horticulture: the Primary Mission of Horticultural Science

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This column has had articles on many subjects that need to be addressed, e.g., funding research (4), horticultural education (2), professions in horticulture (5), and interdisciplinary research (3). After reading these articles, and I encourage all members to do so, I came to the conclusion that they tend to concentrate on only one point. The question remains: what is the primary mission of horticultural science? I believe that the answer is simple and straightforward: *to service production horticulture*. This was the original purpose of establishing the land-grant university system and the USDA-Agricultural Research Service. It remains our primary mission and horticultural scientists must not lose sight of it.

As the U.S. and world population continues to grow, there must be a return to essentials — food, shelter, and the quality of life. In this light, horticulture touches everyone, everyday. Most consumers remain unaware that french fries, salad fixings, shrubbery, and shade trees are horticultural products. One day there will be a reawakening to the essentiality of horticulture and we need to persevere till that time comes. When it does, there will be a sad realization that prime horticultural land has been destroyed, that knowledgeable producers have left the farms, nurseries, and greenhouses, and that there is a lack of knowledge needed for optimal yields of quality products. This could be a difficult pill to swallow.

In the meantime, however, we must keep research, teaching, and extension geared to the needs of production horticulture. We must bridge basic and applied research, extend commodity information to producers, and train students for roles in production horticulture. At present, we have the basic core of personnel, facilities, and programs. They are, however, being slowly eroded as direct appropriations continue to decrease. Too much effort is being directed toward obtaining grants, securing funds for special items (integrated pest management rather than crop management systems, for example), and pushing programs which have political overtones rather than real



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production needs.

Horticultural researchers must focus on both short term and long term programs. The establishment of priorities is essential. Teachers must educate the students so that they can contribute to profitable horticultural industries. The implementation of work-study programs (2) and practical laboratory exercises are vital keys in student training. Extension specialists must realize that they cannot be all things to all people all the time. In social areas, the federal government has tried this approach for years and has been unsuccessful. New delivery systems for production horticulture must be devised and mass media techniques perfected for the general public. One to one contact is impractical.

On a broad-based level, two major aspects need to be evaluated by horticultural scientists and administrators: basic responsibilities and communications.

The fundamental responsibilities of the horticultural scientists is usually defined by the position description. They generally include a mix of teaching, research, extension, and administration. Baker (1) has comprehensively covered this area and all scientists should read his article. Departmental administrators need to provide a creative environment, program direction, and resources (funds and technical assistance), as well as continually evaluate programs and insure rewards for productive scientists. The major responsibilities of higher adminis-

trators are to obtain resources for the departments and to minimize unnecessary paperwork and accountability. They should educate the legislators at the state and federal levels as to our needs, functions, and accomplishments. This is an area which needs an increased effort.

Horticultural scientists should be more active in the area of communications. Because they are ultimately responsible for all program activities, they need to communicate openly with their department administrator as to their needs and goals. The administrator must encourage communications and have an open door policy. In addition, forums such as faculty meetings, individual faculty conferences, and departmental retreats should be used whenever possible. Department heads must also maintain active and constant communications with higher level administrators as to the resources required by the department.

On an ASHS level, I feel that our annual meetings are inadequate. Short papers, poster sessions, and symposia concentrate on past accomplishments. The working group concept is a step in the right direction. We should, however, look beyond single focus areas. I would like to see our divisional vice-presidents move toward establishing conference-type meetings. Key issues could be rotated, e.g., research prerogatives, undergraduate and graduate educational directions, horticulture industry needs. This type of conference would provide a forum to maximize inputs in areas where long range projections are needed. I also feel that our publications (*Journal ASHS* and *HortScience*) are not meeting the needs of the majority of the ASHS membership. The study conducted by Westwood et al. (6) indicated that less than 10% of the members published more than 1 paper per year. I would like to see all research articles both long and short placed in one publication, the *Journal HortScience* should be restricted to reviews and articles on teaching and extension to better serve the majority of the ASHS membership. I urge the Society to consider these and other proposals to strengthen our ability to meet the needs of production horticulture.

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LETTERS

Somatic Variation in Potato

Recently, attention has been given to the exploration of somatic variation in tissue culture as a plant breeding technique. Refinement of cell culture methods and the ability to regenerate plants *in vitro* have contributed to this surge of interest. Several proponents have singled out the potato as being especially suited to this somatic selection approach and we are looking at it in our own program. Emphasis has been focused on variation derived from leaf protoplasts (2) and single cell cultures (3).

In this connection it might be well to point out a 1946 paper which stated the following "...in some cases...if an organism is obtained from a certain group of cells, from a separate body part, the new generation will possess...a different heredity, compared to the original breed or variety. This can be observed, for example, in potatoes if one obtains adventitious buds, "eyes," from the core of the tuber. Growing plants from such "eyes" results frequently in obtaining a new breed, i.e. a variety with different properties."

The source of the quotation? T.D. Lysenko! (1).

Considering the importance of potatoes in Russia, and the long reign of Lysenkoism, one is inclined to suspect that much effort was devoted to selecting for somatically-induced variability from the 1930s to the 1960s. Perhaps Lysenko's journal *Agrobiologiya* has relevant information. We are in the process of reviewing the journal, but would be interested in hearing from anyone who might know of other references to somatic selection in the potato during the Lysenko era.

H.T. Erickson

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Vegetable Library Lists

I was recently asked to help develop a book list for use as a guide in developing a basic library at our Vegetable Substation. Approximately \$1,000 was available as a result of contributions in memorium of Henry H. Vose, the first director of the station. The library would serve several purposes: as quick reference for the station staff and project leaders from the main campus; for answering questions of the visiting general public; and for broadening of the station staff, professional and classified during slack work periods and after hours. I developed a guide list. While doing so I wondered if there is a list available anywhere for guidance, not only in this type of situation, but for other library situations such as high schools, public libraries, college and university libraries. The Society of American Foresters has a basic list for libraries in colleges that give the B.S. degree in forestry, and there must be others in the plant science areas.

I'd be interested in knowing of such lists. If generally lacking, perhaps this might be something for the appropriate ASHS Committee to consider.

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SCHEDULE OF FUTURE MEETINGS OF THE AMERICAN SOCIETY FOR HORTICULTURAL SCIENCE

Name & Date of Meeting	Location	Comments
78th Annual ASHS Meeting August 8-14, 1981	Marriott Hotel Atlanta, Georgia	Excellent facilities at attractive rates. Tours of diverse horticultural interest.
79th Annual ASHS Meeting August 8-14, 1982	Iowa State University Ames Campus	Campus facilities will be used for program sessions and housing. New horticulture building to be completed.
80th Annual ASHS Meeting October 16-22, 1983	McAllen, Texas International Civic & Convention Center	Accommodations will be at several hotels and motels near the convention center. Tours of diverse horticultural industry in the Rio Grande Valley area will be featured.
81st Annual ASHS Meeting July 22-29, 1984	University of British Columbia, Vancouver	A joint meeting with the Canadian Society for Horticultural Science. Tours and sightseeing will be planned.
82nd Annual ASHS Meeting July 28 - Aug. 2, 1985	Virginia Polytechnic Institute & SU, Blacksburg	Campus facilities will be used for program sessions and housing. Horticultural tours will be planned.
83rd Annual ASHS Meeting August 11-20, 1986	University of California Davis Campus	Will be an integral part of the XXIIInd International Hort. Congress, hosted by ASHS and AHS. Accommodations will be on and off-campus in the Davis/Sacramento area. Tours and sightseeing will be featured.
84th Annual ASHS Meeting October - November 1987	Orlando, Florida Hotels in the Disney World vicinity	Will be back-to-back with meeting of the Florida State Horticultural Society; ASHS Tropical Region may also be involved.