

RESPONSE TO EXTERNAL REVIEWER COMMENTS

An overwhelming viewpoint on the part of external reviewers of the S-103 Southern Regional Project was that this research committee has been highly productive historically and that there is every indication that this productivity will continue in the next project period. This is further substantiated by CREES officials referring to the S-103 Regional Project as a “model for regional research efforts”. In this critical review, the S-103 proposal writing committee highlights how the major concerns of the external review panel have been addressed either in the proposal itself or by the comments included herein. In the midst of many positive comments made by the external review panel, there were several pertinent issues brought forth by the review panel and each of these issues is addressed separately below.

Issue 1 “...other than Oregon, no western states are included in the project...”

The S-103 committee fully recognizes the importance of western states such as California and their respective importance to the nursery and landscape industry. This fact was even brought up again in the committee’s latest working meeting. A subcommittee was developed to investigate potential membership from key western states, as well as replacement representation from key states that have lost membership (i.e. New York) due to committee members moving to other land-grant institutions. As these potential members are identified, an analysis of their current research efforts will be to determine potential synergies that might result from their participation. If such synergies are found to exist, they will be actively solicited for membership on the committee.

Issue 2 “...what is the past, present, and future role of industry in this research project?...”

While not obvious at first, industry has played an important role in the S-103 committee’s research efforts. First, they have been instrumental in aiding researchers in identifying “best management practices” for the nursery and landscape sectors. This had been a critical element in conducting cost of production analyses. To collect pertinent data necessary for the economic engineering methodology of determining costs, researchers have utilized the Delphi method of primary data collection, which is inherently impossible without the cooperation of industry representatives.

Another important role which industry has played in S-103 research efforts is their input and guidance regarding research priorities for the nursery and landscape industry. For example, many of the S-103 committee members present (and publish) the results of S-103-related research at the *Southern Nurserymen’s Association Annual Research Conference*. The objective of the conference is to not only allow researchers to present their results to others in academia, but to key nursery industry leaders as well. Much discussion from industry participants revolves around the usefulness of research findings, further research stemming from studies presented, and future areas of research needed by the industry. There is no mistaking the power and influence that these industry leaders have in identifying priority areas of research for the future.

Issue 3 “...Cost of production is important, but only as a tool for policy analysis and testing industrial organization hypothesis...”

While reviewers tended to downplay the importance of cost of production research, industry participants have viewed the budgets as an important planning tool for their respective operations. One

indicator of the demand for this type of research is their willingness (eagerness) to participate as Delphi participants. Those who have conducted primary data collection and experienced the difficulties in obtaining reliable data will appreciate the subtleties of that statement.

Another indication of the importance of such studies has been the intense demand for the *Southern Cooperative Series* publications that have resulted from this research. The data is collected and reported by climatic zones, which makes them applicable across state boundaries. Because of this, growers have even reported using the publications as a guide to growing and costing plants in their own operations (even though readers are cautioned to use the publication as a model for conducting their own analysis). Though humbling, this is a healthy complement to the realism, accuracy, and pragmatic nature of the research efforts.

The committee does recognize however, that information technologies (such as the internet and writeable cd-rom) may expedite the delivery of such cost of production analyses. This capability is currently being explored by a newly established *Publication Distribution and Delivery* subcommittee.

Issue 4 “...why is it important to document the green industry’s contribution to agriculture and the economy...”

In the justification section of the proposal, the importance of the green industry to the agricultural economy is presented. However, it should be noted that the U.S. green industry is the second most important sector in U.S. agriculture in terms of economic output, according to a previous S-103 study that took into account the value of inputs purchased and from product handling, marketing, and distribution. It also revealed that, among the various agricultural sectors, the green sector is a major employer. Only the combined crop sector including vegetables, fruits, tree nuts, and hay and pasture employ more person-years.

Landscape plant production has become a major sector within U.S. agriculture and is of major importance to farmers, rural communities, and consumers. In fact, greenhouse and nursery product producers generate the second highest (after vegetables) net value added per dollar of gross income among all agricultural commodities.

In the last fifteen years in the United States, the production, marketing and maintenance of environmental plants has been a growing part of the agricultural economy. Yet, few resources have been allocated to research associated with the above. In fact, the USDA has one person who is responsible for collecting, analyzing, and disseminating economic information regarding environmental plants. Because of the limited nature of resources devoted to this research arena and the growing economic importance of this sector, it is crucial that research mechanisms be developed to assist producers and marketers of these plants to better ascertain opportunities and threats in the next five years.

Issue 5 “...what is the outreach component of the project?...”

While extension and outreach-related activities are not explicit charges of many of the S-103 committee members (with 100% research appointments), it is well understood among the group that outreach is an important and integral part of committee activities. Because of this emphasis, the committee has been and will continue to be prolific in terms of publication output in response to the demand by industry participants. Another aspect of the committee’s outreach efforts is the sponsoring of conferences

and symposia. Besides the extensive participation in the *Southern Nurseryman's Association Research Conference* mentioned earlier, the S-103 committee has sponsored the *International Society of Horticultural Sciences (ISHS) Conference* in New Jersey and the *Horticultural Researchers Symposia* in Brussels. This type of informational exchange and outreach will continue to be a vital component of S-103 activity.

Issue 6 “...objective 3c may be better suited under objective 4...”

Duly noted and change made in the proposal.

Issue 7 “...most of the research review reads as a disjoint collection of research that may have been completed without S-103...”

While the S-103 committee has been prolific in terms of its publication output, one area that admittedly needs improvement is the need to better document the interactions and collaborations that occur during regional research projects. However, even in the case of non-S103 related research that is conducted by individual researchers at one particular university, they have oftentimes consulted with colleagues at other institutions regarding the appropriate research methodology, data analysis techniques, etc. One cannot underestimate the importance of such informal interactions in conducted both basic and applied research.

Additionally, the committee has taken the stance of allowing the lead researcher(s) the opportunity to publish under their name, rather than an extensive list of authors. Particularly in the case of journal articles, there seems to be a gain in credibility (on the part of promotion and tenure committees) the fewer the number of authors. This is done in spite of the fact that several researchers may have been responsible for certain portions of the research study (i.e data collection) in their respective states. The committee recognizes this problem and has decided to make a concerted effort to consider more multi-authoring when publishing S-103 related research. It should be noted however, as the external reviewers did, that the S-103 project is comprised of individuals who are noted in their respective states and that these highly motivated researchers have a viable research programs that they are responsible for as well that address research issues that are directly applicable only in their respective states. Indirectly, however, they add to the collective knowledge base of the regional project through the informal interactions alluded to earlier.

It should be further noted that one of the more renowned research efforts of the S-103 committee had been the National Nursery Industry Survey that was first conducted in 1988, then subsequently in 1994, and most recently in the spring of 1999. Not only does this research include **all** of the S-103 participating states, but other non-participating states as well.

Issue 8 “...will the project produce significant results contributions in the horticultural field?...”

The research proposed in this project statement coincides with the mission of the Cooperative State Research, Education, and Extension Service (CSREES). This mission is “to achieve significant and equitable improvements in domestic and global economic, environmental, and social conditions by advancing creative and integrated research, education, and extension programs in food, agricultural, and related sciences in partnership with both public and private sectors.” Furthermore, the proposed research in this project statement supports goals 1, 4, and 5 of the Strategic Plan developed by the CSREES (Goal 1

- an agricultural production system that is highly competitive in the global economy, Goal 4 - greater harmony between agriculture and the environment, and Goal 5 - enhanced economic opportunity and quality of life for Americans). The cooperation of horticulturists and agricultural economists from around the United States that comprise the S-103 committee offer a unique resource to examine economic and environmental issues.

While the research work that focuses on the production-marketing system will contribute to the overall efficiency of the industry, much of the research will contribute to the applied sciences. Research dealing with new technologies and the application of these technologies contribute to the base of scientific knowledge that may lead to application in other horticultural areas, such as vegetable production. The work planned on biological control of insects, water-efficient pelletized container production systems, water holding capacity of various potting media, and alternative irrigation systems will contribute to the advancement of science. This water-related research will also contribute to the number one research area identified for the Southern Region by the Southern Association of Agricultural Experiment Station Directors in the August, 1992, report entitled Southern Strategic Research Plan.