In 2003, ASHS celebrates its first 100 years of leadership in horticultural science with our Centennial Conference. The question of the day may be whether we will celebrate an ASHS bicentennial. Our next century will be even more challenging, scientifically and technologically. Information exchanges and communications will be vital. The relevance of our scientific contributions will relate directly to the manner in which ASHS members interact with industry, with decision makers, and with all users of horticultural science.

Jules Janick, in his Centennial “Tex” Frazier Lecture, chronicled horticulture and horticultural progress, with emphasis on our first 100 years. Today I want you to focus with me on our next century: I will briefly address our rich history and will mention some of our horticultural science contributions that have led to major industry transformations in the past. I will recount for you some of the advances of your Society since we last met in Toronto. Then I will relate some of the challenges that I see for the second century of ASHS. Finally, I will suggest how we might deal with our future challenges by leveraging the science of horticulture and acknowledging the fact that “Everyone is a Horticulturist.” So, let’s make it easy for them to identify with the sources of the art and science of all things horticultural: ASHS.

Our future with horticultural crops depends on our ability to build on progress already made. These challenges for ASHS must be addressed, and the solutions must be properly packaged and marketed to national and international decision makers in language they understand best. We have a lot to do. We could think of my Presidential Address as your ASHS President’s 2003 Report Card, including suggestions for making the grade in our second century.

Agricultural and Horticultural Advances in the Past 100 Years

1903 was an interesting year. Wilbur and Orville Wright made their brilliant manned flight at Kitty Hawk and changed forever the way the world traveled. The Ford Motor Company began mass production of affordable cars and other vehicles. Crayola began producing a variety of colored crayons for children of all ages. Bob Hope, one of America’s great entertainers, was born in the suburbs of London. Harley Davidson started producing everyone’s favorite motorcycles. The Tour de France was initiated, and so was the World Series. The American Society for Horticultural Science was also formed that year and a lot has happened since then. Today’s farmers plant highly bred cultivars, take care of the plants with machinery functioning with computers and GPS guidance systems, use wireless networks to get advice from the World Wide Web, and compete in a global market with growers from Europe to Australia. The combination of hybrid crops, cheap fossil fuel-based farm chemicals, and mechanization has created a technological revolution in agriculture that has helped feed billions of people worldwide.

Advances over the past 50 years have been particularly rapid and sweeping. Recently, members of the North American Agricultural Journalists included the following developments as the highest priority news stories of the last half-century: hybridization and other crop improvements; genetically modified crops; James Watson and Francis Crick’s discovery of DNA’s structure; Norman Borlaug’s “green revolution”; the 1962 publication of Rachel Carson’s book, Silent Spring; the adoption of anhydrous ammonia; and increasing agricultural mechanization. All of these events have involved horticulture.

My personal list of significant horticultural science developments that have led to industry transformations over the past century includes: breeding techniques; improved disease and insect resistance; plant introductions, globally; introductions of new crops; improved diversity, leading to year-round availability of horticultural commodities; discovery and use of growth regulators; discovery of ethylene as a principal ripening agent for climacteric fruits and vegetables; discovery and use of controlled-atmosphere storage for prolonging quality of perishables after harvest; transportation advances, such as refrigerated vehicles; improved nutrition, flavor, durability, and handling of perishable horticultural commodities; improved processing and preservation techniques and methods; reemergence and expansion of organic production; and the use of plastics for greenhouses, irrigation, bed covers, and mulches.

As a postharvest horticulturist, I am concerned with fresh perishable products often produced far from consumers. One hundred years ago, freshness was a seasonal experience. Because of research and technology, freshness is now becoming a year-round daily experience in many parts of the world. For example, the discovery early in the 20th century of the role of ethylene in ripening led to dramatic alterations in the produce industry. Today, we manage well the postharvest life of perishable commodities harvested at their peak of quality. The seasons of horticulture have been obscured by modern technology. These are some of the dividends of horticultural science research and development.

Equally as important as the technical progress we have made is the growing awareness of the importance of horticulture. Nowhere is this truer than in the international arena. In a keynote address at IHC-2002, Ismail Serageldin, director of the Library of Alexandria, Egypt, and formerly vice president of the World Bank and executive director of the Consultative Group of International Agricultural Research, described multiple links between horticulture and sustainable development. He said:

[that] the demand for flowers, fruits and nuts, ornamentals, vegetables, medicinal plants, and herbs and spices is growing faster than other sectors of world agriculture; that much of the growth of the horticultural industry is occurring in the developing world, home to the bulk of humanity and most of the poor; that new technologies, knowledge, institutions, and policies relating to horticulture will empower producers to tap into potentially lucrative markets; that horticultural plants and plant products contribute enormously to the diet and health of humans everywhere. And most important is the understanding that horticulture contributes importantly to income, livelihoods, and diversification, and is well suited to small holdings and family enterprise in the developing world. Horticultural crop production is appropriate for small-holder farmers using family labor. It is about high-value crops managed intensively to achieve replicable results. Horticulture is eco-friendly when practiced with sound management. Fruits and vegetables contribute to a healthy diet. Herbs and spices add interest to our food, and the international demand for medicinal plants is increasing every year. Flowers bring joy to our lives. Clearly, horticulture has multiple roles to play in building a better tomorrow.

As we work together to achieve Dr. Serageldin’s vision, I believe that our Society has an invaluable leadership role.

Our Centennial Year

As we enter our second century, we can look back with pride on our recent successes. Our investment in our last ASHS Annual Conference, a joint venture with the spectacular International Horticultural Congress in Toronto, paid exceptional dividends and we were, indeed, richly rewarded. The breadth, depth, and relevancy of horticultural science were amply exemplified during IHC2002: “Horticulture: Art and Science for Life.”
We also made progress as a result of an in-depth, online survey conducted by our Continuing Strategic Planning Committee. Early in 2002, ASHS members gave their feedback on virtually every aspect of our Society. The leadership listened and, a year ago, we initiated changes necessary to ensure our continued fiscal soundness and success.

Through responsible adjustments of our dues structure, we converted the best deal in town into a solid value for all ASHS members. What had already been a sound professional decision for horticulturists became an outstanding investment in the future. In addition to all of the current benefits of basic ASHS membership, the increased revenue was invested in even more ASHS member benefits, including an online member-only searchable database (online membership directory), online nomination and application forms, and a secure e-commerce site for dues renewals, and purchase of ASHS products and services and annual conference registration. Our online peer review system became operational on 1 Jan. 2003 and has virtually changed the way we do business.

Second-century Challenges for ASHS

While we have made good progress, we must continue to look ahead. I see several challenges and opportunities:

1. A good starting place is the critical importance of interacting with the private sector and promoting the contributions of ASHS to horticultural industries. Let’s find ways to bring our industry partners into the mainstream of ASHS. As my North Carolina State colleague and vice president-elect of our ASHS Industry Division Barclay Poling, says, “This is not the time for industry to be looking upon ASHS and its many quality programs from a distance.” These are the primary users of the science of horticulture, and they have much to offer us as well. Jeffrey Norrie of Acadian Seaplants Limited says, “Networking between industry representatives and researchers from other research and development organizations is a cornerstone benefit to being included in the ASHS family.”

Our corporate members enjoy the mutual benefits of ASHS involvement, but there are many more industry entities that can and should be our partners as we deal with the challenges of our next century. These members are partners who are well-positioned to enhance the visibility of ASHS and the science of horticulture. These are the beneficiaries who can and will give due credit to ASHS for the science of horticulture. But, will they? In fact, where are they?

The value of this type of partnership is evident in a unique opportunity for academic engagement with industry. For the past two years, the United Fresh Fruit and Vegetable Association, an ASHS corporate member and corporate sponsor, has invited ASHS to co-host the ASHS University Pavilion (Educational Showcase) at its Annual Produce Business Conference & Expositions. When United celebrates its Centennial Convention in Chicago in May 2004, we hope to again co-host the ASHS University Pavilion. This will be United’s first joint convention with the Food Marketing Institute. As a reminder: All interested colleges, universities, and agencies are encouraged to showcase their horticultural science programs through this industry–academia partnership offering complimentary conference registration and exhibit space.

2. While we need to engage industry, we also need to reach out to young horticulturists. Organizations like ACB and the National Junior Horticultural Association deserve our due credit to ASHS for the visibility of ASHS and the science of horticulture in this new century. Richard L. Sawyer is the founding director general of the International Potato Center in Lima, Peru, and is here today. Dick reminds us: “new diseases are already appearing and the major flexibility that exists in horticultural crops to adjust to these changes exists untapped in much of the world.” Horticultural crops have a tremendous range of flexibility, from tree fruits to vegetables that will grow from the heat of the jungle to the cold of the polar regions. Up until now, we in the “global village” have turned mainly to extensively produced crops, such as the cereals, to feed people. The time has come for similar attention to be given to more intensively grown horticultural crops and to explore not just the range of climates in which they can be produced, but also their variability and nutritional quality. ASHS should be leading such efforts.

3. How about home horticulture? Natural resources are being exhausted in many areas, and this trend will continue for years ahead. We must anticipate and respond to this trend and others that affect horticultural science. This includes increasing production of local fruits, vegetables, and flowers. My North Carolina State colleague Will Hooker stated in our local newspaper this past July that: “we could produce a third of what we want in home gardens, taking out all that energy invested in transporting perishables long distances.” If we aren’t always able to produce our own garden freshness, we can support those local growers who produce horticultural crops nearby. Horticultural crop producers, from home gardeners to corporate farmers, always have and always will need the science of horticulture.

6. Everyone knows that edible horticultural crops are healthy. I think that we have a responsibility to partner with the Produce for Better Health Foundation in its promotion of the increased consumption of fruits and vegetables. Its 5-A-Day campaigns over the past decade have succeeded and been translated into several languages and cultures to be used around the world. Such responsible efforts contribute significantly to the improvement of human health and related critical needs, such as fighting the obesity epidemic in America.

7. Horticultural scientists also have an important role to play in continuing to develop more consumer-friendly horticultural products. The small watermelon and the cut fresh fruit and vegetable industries are good examples.

8. As we address these external challenges, I believe it will be healthy for us to look internally at the division structure of ASHS. Working Groups unite those of common interest. Acknowledging that our Working Groups are the heart and soul of ASHS, we would like our membership to consider with us options that will: 1) leverage the strength of these unique special interest groups; 2) facilitate their operations and interests; and 3) empower them to play more prominent roles in ASHS.

9. We also need to consider carefully how and who we serve in the future. This will define us as an organization. As we consider the future of ASHS, let’s not underestimate the importance of: 1) who we are; 2) who we want to be; and 3) who we want to serve (in addition to our more traditional members). We need to customize our strategic plans to focus on both nontraditional and traditional member groups. Are we willing to consider new and complimentary membership categories, such as county extension agents, community college faculty members, Master Gardeners, and horticultural field representatives, to mention a few possibilities? ASHS has the responsibility of building on the strengths of our past century of creating and serving the science of horticulture.

Dealing with Our Challenges by Leveraging the Science of Horticulture

One of the best things we can do to build on our past is to make sure that more people know and understand the importance of horticulture and horticultural science.

Horticulturists must deliver their messages to decision makers, nationally and internationally. In 1990, ASHS sponsored a Congressional Science Fellowship, and I was honored to be selected as our first ASHS Fellow. That truly unique opportunity represented a compelling challenge to me. My colleagues questioned my judgment for even thinking of competing for such a totally different position. To me, this represented an option to break the cycle of preaching to the choir. I was convinced that we horticultural scientists needed to do more than just talk mostly among ourselves about our needs for advocacy and support for funding of our favorite initiatives. We needed to grow beyond our annual gathering of tribes and to engage non-horticulturists in our dialogue.