

Symposium Papers and Authors

Presiding: Mark Sherman

Postharvest Senescence of Horticultural Crops: Organizer's Comments
Mark Sherman

Senescence: An Introduction to the Symposium
Donald J. Huber

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Werner J. Lipton

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Senescence and Homeostasis in Postharvest Research
Roger J. Romani

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Postharvest Senescence of Horticultural Crops: Organizer's Comments

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Most people have experienced occasions when senescence in a horticultural commodity has disappointed them as consumers. This may have been when a dozen roses, ordered for someone special, failed to open and deliver the visual and fragrant pleasure that was expected. Perhaps it was when the bushel of apples stored in the cellar was found to be shrivelled and too soft to consume. Our personal experiences take on economic significance when one considers the cumulative effect of the losses that occur during the harvesting, handling, storage, and distribution of fresh fruits, vegetables, and flowers. Estimates have placed the losses during marketing at anywhere from 5% to 50%, depending on the commodity. Directly or indirectly, all of these losses are related to processes of senescence.

On a global basis, one might argue that there is not a shortage of food. Rather, there is shortage of the technology needed to distribute the world's agricultural resources. A poignant example of this has been in Africa, where the lack of trucks and roads has hindered the distribution of grain for famine relief. Imagine trying to distribute our highly perishable horticultural commodities under these conditions! Many of us have come to expect a sophisticated system of refrigerated storage, handling, and rapid distribution of our products. However, requirements for these systems place many of our commodities outside the reach of much of the world's pop-

ulation.

A scientific understanding of senescence may lead to controls that we have not imagined, which could have a profound influence on the quality of life around the world. Objectives of the ASHS Postharvest Working Group include exchanging ideas and information relating to postharvest biology and increasing awareness of the importance of postharvest aspects of horticulture to the physical, economic, and psychological well-being of the population. The XXII International Horticultural Congress provided a unique opportunity to work toward fulfilling these objectives in cooperation with our colleagues from around the world. This symposium was organized to capitalize on this opportunity. The speakers are recognized leaders in their fields. Each addressed important aspects of senescence in horticultural commodities. They took some risks in venturing their opinions, presenting data, and speculating beyond the data to generate new ideas and discussion during the session. Those of you who were at the session will find that some things are missing in the printed manuscripts. For example, you won't find Don Huber's references to the "fountain of youth" from the *National Enquirer*, or Don Grierson's technical terms, the "armwaving mechanism" or "heavy breathing response". Overall, however, I think that the reader will find that the essence of the presentations at the symposium is preserved in the following manuscripts.