

## IN MEMORIAM Dr. Ghassem Tehrani

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The world of pomology lost a valued colleague and good friend with the passing of Dr. Ghassem Tehrani on Sept. 5, 1996. "Gus," as he was affectionately known to his many friends, was born in 1935 in Isfahan, Iran. His interest in horticulture was stimulated at an early age through his contacts with the family gardener. Little could anyone know that those early experiences would launch an international career that was to have significant impact on fruit growing in far-away lands.

Gus enrolled in the College of Agriculture at the University of Tehran in 1956, graduating with a major in Horticulture in 1960. His interest in plant breeding then took him to Utah State University in 1961, where he completed a M.S. degree in plant breeding in 1963. His thesis dealt with the topic of the heritability of hard seed in lima bean. Then it was on to Cornell University, where Gus enrolled in the Ph.D. program in the Department of Plant Breeding. He chose as his topic the inheritance of the physiological response of red beet to low boron. In 1967, Gus completed his Ph.D., becoming one of the many successful students trained by Dr. Henry Munger.

Following the completion of his Ph.D., Gus accepted a position as Research Scientist with the Horticultural Research Institute of Ontario (HRIO) in Vineland Station, Ontario, working with cherries, plums and pears. Although trained as a vegetable horticulturist, Gus took to his new crops with the enthusiasm that always characterized his life. He spent his entire career, with one notable exception,

at Vineland working on breeding and orchard management in these crops.

From 1975 to 1980, Gus returned to Iran to serve as Dean of the College of Agriculture, and for two years as Vice Chancellor for Research and Academic Affairs, at Ferdowsi University in Mashhad, Iran. While in Iran, Gus worked on all phases of the establishment of the new College of Agriculture, including administration, staffing, funding, facilities, etc. In 1980, Gus returned to his former position in Vineland, where his research program had been maintained by his technician, Mr. William Lay, and took up where he had left off five years before. In 1993, Gus became Manager, Research Programs at Vineland, taking on an administrative assignment while maintaining his research programs. He continued in this responsibility until his death.

Gus had trained as a plant breeder, so it was no surprise that one of his first activities at Vineland was to review the status of tree-fruit breeding programs in cherries and plums. With the cooperation of HRIO staff, Gus authorized the release in 1967 of several sweet cherry and European plum cultivars in honor of the 100th anniversary of Canadian Confederation.

During his career, Gus carried out extensive breeding programs with sweet and tart cherries, European plum and Japanese plum. He was responsible for the release and naming of seven sweet cherry cultivars, one Japanese plum in cultivar and six European plum cultivars (Table 1), as well as several advanced selections of each species. His objectives in breeding were to develop cultivars suited to the

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fruit growing districts of southern Ontario and the Niagara Peninsula. He sought cultivars with better flavor, overall quality and handling ability, tolerance to the environmental conditions of the area, and that expanded the harvest season for those crops. In 1968, the release of the self-fruitful sweet cherry cultivar 'Stella' in British Columbia inspired Gus to introduce self-fruitfulness as an important objective of his sweet cherry breeding program for Ontario. He made many crosses using 'Stella' as a parent, ultimately producing 34 promising self-fruitful selections, two of which were named in 1996, one in honor of Gus's long career of productive research in Ontario.

Although Gus was very productive as a tree-fruit breeder, he did not confine his pomological interest or activity to that area alone. Gus engaged in a variety of other research projects, including studies of the effects of daminozide (Alar) and gibberellic acid on the maturation of tart cherries in relation to mechanical harvesting, hedging as a management tool for high-density European plum plantings, trials on plum rootstock production from cuttings, and extensive studies that helped to elucidate pollen compatibility groups for Vineland sweet cherry releases and other sweet cherry cultivars.

Another research area that attracted much attention from Gus was rootstock and spacing trials for the fruit crops for which he was responsible. Gus became very interested in the potential for higher density plantings in cherries, plums and pears. He began rootstock and spacing trials on his own. When the NC-140 regional rootstock evaluation project expanded into rootstock trials with tree fruits other than apple, Gus became a participant in that program. He contributed substantially to the success of the NC-140 program, both from his previous experience and by participating in the standardized rootstock plantings for sweet and tart cherries, European and Japanese plum, and pear.

One of Gus's more important contributions resulted from his early tests with quince as a dwarfing rootstock for pear.

The discovery in Europe of a 'Bartlett' strain that was graft-compatible directly on quince rootstock led Gus to design trials of various pear cultivars on a variety of dwarfing rootstocks. Gus showed that quince worked very effectively as a dwarfing rootstock for pear in those areas of Ontario where the winter minimum did not fall below  $-26^{\circ}\text{C}$ . Since the Niagara Peninsula rarely experiences such winter lows, considerable interest has developed there in high density pear production based on Gus's results.

Gus was instrumental in developing the Superior Budwood Distribution program in Ontario. This program maintained important tree fruit cultivars in orchards that were routinely indexed for viruses. Nurseries and private citizens who required budwood of known tree fruit cultivars that were certified to have been indexed for known viruses took advantage of this important service program. For many years Gus administered this program, coordinating the requests and distributing thousands of buds of numerous cultivars every summer.

Gus also coordinated the development of the Heritage Apple Orchard, which was a successor to the original Museum Orchard at Vineland. The Heritage Orchard was designed to serve as a germplasm repository and to display apple cultivars of historical importance in Ontario. About 100 apple cultivars, representing old as well as modern types, were propagated on M.26 rootstocks and planted in 1986 in a medium density orchard. This orchard has proven to be of great interest and enjoyment to the general public and other visitors to the area.

While maintaining an active and productive research/extension program, Gus also found the time to participate in other aspects of horticulture. He was involved with many committees and organizations during his career. In Ontario, Gus worked closely with the Niagara Peninsula Fruit and Vegetable Growers Association and the Ontario Tender Fruit Marketing Board. After he became Manager, Research Programs at Vineland, Gus was ap-

pointed to chair the Ontario Horticultural Crops Research and Services Committee. This group was charged with carrying out reviews of horticultural research and extension programs in Ontario under the auspices of the Ontario Ministry of Agriculture, Food and Rural Affairs. He was a member of the Canadian Society for Horticultural Science, the American Society for Horticultural Science, the International Dwarf Fruit Tree Association, and the NC-140 Technical Committee. Gus was also a long-time member of the American Pomological Society, and had risen to the office of President at the time he became ill in 1996.

One of Gus’s last contributions to horticulture was the organization of a workshop sponsored by the Pomology Working Group at the 1995 annual meeting of the American Society for Horticultural Science in Montreal, Quebec. This workshop, “Impact of Specific Long-term Fruit Breeding Programs in Local, National and International Industries,” reviewed the history, status and contributions of several tree-fruit and small-fruit breeding programs in North America. Gus presided at the workshop and presented a lecture describing sweet cherry breeding

in Canada from 1915 to 1995. This workshop serves as a testimonial and a fitting memorial to Gus’s long interest and productive efforts in tree-fruit breeding.

Finally, there was Gus the person. Gus was much more than a scientist. Those of us who were privileged to know him well remember a kind and gentle man, a team player whose experiences had taught him to value life and personal relationships. Although he had experienced significant difficulties and hardships, especially at the time he and his family returned to Canada from Iran, Gus maintained a calm and reflective outlook on life. His values combined honesty, caring, and tolerance with a strong dedication to careful and well-planned science. Perhaps his trademark farewell, “Peace!”, is the best indicator of how Gus chose to relate to the world, his colleagues, and his friends.

Well, Gus, you are now finally at peace yourself, and we who knew you are grateful for the opportunity to have shared a portion of your journey, to have learned so much from you, and to have enjoyed your wonderful sense of humor. It is to you, Dr. Gus Tehrani, that these publications from the workshop you organized are dedicated.

**Table 1. Tree-fruit cultivars released by Dr. Ghassem Tehrani.**

Sweet Cherry	Japanese Plum	European Plum
Valera (1967)	Vanier (1984)	Valor (1967)
Vega (1967)		Verity (1967)
Viva (1973)		Vision (1967)
Vogue (1974)		Veeblue (1981)
Viscount (1983)		Voyageur
(1987)		
Vandalay (1996)		Victory (1992)
Tehranivee (1996)		