Journal of the American Pomological Society 64(2): 120-122 2010

2009 Wilder Medals to Victoria Knight and Paul Lyrene

The American Pomological Society (APS) awarded two Wilder Silver Medals at its annual meeting in St. Louis, Missouri, in July, 2009. The Wilder Silver Medal was established in 1873 in honor of Marshall Pinckney Wilder, the founder and first President of the APS, and is presented to individuals or organizations that have rendered outstanding service to horticulture in the area of pomology. The 2009 recipients were Dr. Victoria Hamilton Knight (nee Evans) of the East Malling Research Station, Kent, England, and Dr. Paul Lyrene, Department of Horticultural Sciences, University of Florida, Gainesville, Florida.

Victoria Knight

Victoria 'Vicky' Knight, a native of Glasgow, Scotland, obtained her B.Sc. (Hons) in Genetics at the University of Liverpool in 1969 and M.Sc. at the University of Birmingham in 1972. At Birmingham, her research involved variation in carrot populations and virus resistance in spinach. She worked from 1969-1972 as a plant breeder at the National Vegetable Research Station, Wellesbourne, England, and started breeding work with *Rubus* and *Ribes* at the East Malling Research Station, Kent, England, in 1972. From 1984-2004, she was the Research Leader for *Rubus* breeding at East Malling, and since 2004 has been the Research Leader for raspberry breeding there.

In a career spanning more than 35 years, Vicky Knight has made major contributions to the development of improved cultivars of *Rubus* and, in particular, raspberries. She has been responsible for the naming of 13 raspberry cultivars, a notable accomplishment. These are of diverse parentage, which indicates her recognition of broadening the genetic base of the raspberry. For example, 'Autumn Byrd', a primocane fruiting cultivar has seven *Rubus* species (*idaeus, strigosus, occidentalis, spectabils, arcticus, crataegus* and *odoratus*) in its derivation and is the first cultivar with such a broad germplasm base. The uniqueness of this cultivar alone will ensure that it is a valuable addition to the relatively narrow germplasm base that exists for modern day raspberry cultivars.

Other significant releases include the floricane-ripening 'Octavia' which has established itself as a major raspberry cultivar in the United Kingdom (UK) and elsewhere. It produces fruit of excellent quality and ripens late in the summer, thus extending the season to overlap that of primocane fruiting cultivars. Other floricane cultivars, developed by Vicky Knight include 'Augusta', 'Gaia', 'Julia', 'Valentina', and more recently 'Malling Hestia', 'Malling Minerva' and 'Malling Juno'. Each is characterized by excellent fruit qualities and has a distinctive ripening period to ensure substantial gains in season extension. These cultivars have already or will soon find a place in the flourishing fresh market raspberry industries in the UK and Europe. 'Valentina' is particularly unique with high quality apricot-colored fruit and is finding a place in the home garden and for specialty markets. 'Minerva' is one of the few cultivars with *Rubus phoenicolasius* in its derivation. The primocane fruiting cultivars, 'Autumn Cascade', 'Autumn Britten' and 'Autumn Cygnet', have established niche markets. For example, 'Britten' has become the most widely grown primocane-fruiting cultivar in Ontario, Canada. 'Cascade' is grown in France, and 'Cygnet' in Tasmania, Australia. 'Autumn Treasure' is a new primocane fruiting cultivar which is being offered as an alternative to 'Autumn Bliss', a 1984 release from the program. Vicky was instrumental in the evaluation and promotion of 'Autumn Bliss' which has become the fruit quality standard by which all other primocane fruiting cultivars are judged. In 2005 'Autumn Bliss' received the outstanding fruit cultivar award from the American Society for

Horticultural Science.

It is obvious that Vicky Knight's raspberry cultivars have had and will continue to have international impact. Because of their unique traits, some of which are derived from hitherto unexploited *Rubus* species, they are extensively utilized as parents in both public- and private sector breeding programs throughout the world.

Vicky Knight has also made substantial contributions to *Ribes* breeding. Under her leadership, five cultivars have been named; the red currants 'Redwing' and 'Redpoll'; black currants 'Farleigh' and 'Foxendown'; and the gooseberry 'Pax'. She has played a pivotal role in the introgression of gall mite resistance from gooseberry into black currant germplasm. Subsequently, this was the basis of future breeding to produce mite-resistant black currant germplasm.

While making the aforementioned contributions, she has published research papers on the inheritance patterns of economically important traits in both *Rubus* and *Ribes*. She wrote the defining paper on the value of *Rubus spectabilis* in improving the red raspberry. She has also contributed to the understanding of raspberry bushy dwarf virus and root rot, each of which can be a limiting factor wherever raspberries are grown.

Vicky Knight has been and continues to be a particularly vigorous proponent of mutual germplasm exchanges among *Rubus* and *Ribes* breeding programs, though this is an era in which privatization has increased and funding sources for long term identification and exploitation of germplasm have steadily declined.

Vicky is regular participant in industry meetings in the UK and in Europe and is well respected for her informative concise presentations. She has been an active member of the Rubus/Ribes Working Group of the Fruit Section of the International Society for Horticultural Science. She was co-chair of the 8th Symposium of this group and helped organize the second Symposium held in 1976. She has been an invited speaker at several of the Symposia and other meetings including the 2nd Brogdale Lecture of The Linnean Society, London in 2004.

- Prepared by Hugh Daubeny and Douglas Archbold

Paul Lyrene

Paul Lyrene was born in Fairhope, Alabama, attained his B.S. in Botany from Auburn University in 1968, his M.S. at the University of Wisconsin in 1970, served in the Army for two years (1971-1972) in the Medical Lab, Ft Meade, Maryland, and got his Ph.D. from the University of Wisconsin in 1974. Paul went to the University of Florida (UF) in 1974 to breed sugarcane (having been trained in oat breeding at the University of Wisconsin, thinking that if you could breed one grass you could breed them all) and was attached to the UF Everglades Experiment Station at Belle Glade in Palm Beach County. In 1977 he saw a notice posted on the bulletin board of the USDA sugarcane breeding station at Canal Point, Florida, announcing the blueberry breeding job in Gainesville. Despite liking sugarcane, he thought the possibility of moving to campus where he could teach and have fun was too much for him and he applied for the job. He started on blueberries in June 1977 in the then-Fruit Crops Department of UF at Gainesville.

When he went to Gainesville, Wayne Sherman made a remarkably generous offer, saying Paul could choose peaches or blueberries, whichever Paul preferred, and he would be the head breeder of the one Paul did not choose. Paul chose blueberries because the literature on blueberries at the time was very thin compared to the literature on peaches, and it was easy to think of little blueberry experiments that would be easy to publish. Paul also liked blueberries over peaches because the germplasm was local and he greatly enjoyed tramping the woods looking for interesting blueberry plants.

Paul's major responsibilities were to breed blueberry cultivars for climates without severe winter freezes, and to educate future plant breeders, and he has been highly suc-

cessful at both. His cultivars are successful at home and abroad, and substantial royalties support his program. Blueberry cultivars released from his program have been readily accepted in Florida, the Gulf Coast, and California to Oregon in the USA, and in Chile, Australia, Spain and Argentina. His blueberry program is the foundation of breeding stock in breeding programs around the world. He has also collected *Vaccinium* germplasm throughout the southeastern USA and has introgressed much of it into his program for various adaptations and fruit characteristics. He has had 15 graduate students complete studies with him to date. He also taught graduate level courses in breeding perennial fruit crops. He has published over 125 manuscripts on these projects with colleagues and graduate students. He is recognized as the premier blueberry breeder in the world, mainly because he has brought so many species' related traits together. Scientists and blueberry growers from around the world have visited his program to see the progress he has made with modern blueberry cultivars.

Paul has released 'Misty', 'Snowflake', 'Windy', 'Santa Fe', 'Southmoon', 'Star', 'Emerald', 'Jewel', 'Millenia', 'Springhigh', 'Springwide', 'Bluecrisp', 'Sweetcrisp', 'Abundance', 'Primadonna', 'Choice' and 'Chaucer' blueberries. The most important cultivar in planted area has been 'Star', but two of his most recent releases, 'Bluecrisp' and 'Sweetcrisp', have the very firm texture type (similar to non-melting in peach) which is likely to be important in the future because such types accumulate very high sugars, they stay on the bush longer because they don't go too soft, and they hold up in storage and have a longer shelf life. He also combined the soil adaptation from *Vaccinium arboreum* into his program and is near release of a cultivar that will not require the soil amendments now needed in highbush blueberries.

Commenting on his most exciting career moments, he said: "The high points of my career were not things I did but things that did themselves with little or no help from me. I was very excited when I found a wild V. *elliottii* plant in the woods which, in the winter, had bright gold-colored buds instead of the normal red. It was exciting to see that this plant made white berries and its tiny seedlings turned yellow when it got cold, not red like a normal blueberry. I was excited when I found 2 *V. elliottii* plants in the woods that crawled prostrate on the ground, instead of rising up like a normal blueberry plant. I was excited when I saw the original seedling that gave rise to the clone 'Emerald' fruit for the first time. It is the only time in my career when I looked at one plant and knew it would become a cultivar."

- Prepared by R.J. Knight, W.B. Sherman & John Clark

❖ ❖ ❖ ❖ ❖

Upcoming Articles in Journal of American Pomological Society

Ribes Bloom Phenology

Seed Coat Morphology Differentiates Blackberry Cultivars

Genotype Affects Defoliation by Adult Japanese Beetle