> In memoriam

Dr. Bernadine Strik (1962-2023), Former Chair, ISHS Division Vine and Berry Fruits



We are greatly saddened by the passing of our dear friend and colleague Dr. Bernadine Strik, on 14 April 2023. She left us all too soon. She is survived by her husband, Neil Bell, and her two daughters, Shannon and Nicole.

Dr. Strik was a woman of the world. She was born in The Hague, The Netherlands. As she was growing up, her family moved to South Australia, and then to British Columbia, Canada. Her family were thoroughly engaged in horticulture. Her paternal grandfather was a vegetable and strawberry grower in the Netherlands, and her maternal grandfather sold fresh produce at his specialty stores. Her father designed a golf course, and her mother started a landscape maintenance business. Eventually, the two opened a large retail nursery, where the young Bernadine worked and began to grow ornamentals.

She obtained her B.S., with honors, from the University of Victoria, B.C., Canada, in 1983, and her Ph.D., with distinction, in 1987, from the University of Guelph, Ontario, Canada. She began her position of Extension Berry Specialist in the Department of Horticulture at Oregon State University (OSU) later that year. Her goal was, "to teach and do research, but also work with growers because that was my background. I wanted to help farmers be more profitable so they can pass their legacy on to their kids." Although Dr. Strik's initial appointment didn't include teaching or research, she considered them priorities for her work and she was allowed to add these responsibilities to her position. She was promoted to full professor in 1997.

During Dr. Strik's 34 years at OSU, blueberry plantings in Oregon jumped from 1,200 to 15,000 acres with large changes in production systems based on her research. Her landmark 14-year project on planting methods, fertilization, mulching, cultivar adaptation and weed control saw the acreage of organic blueberry production in Oregon increase from 2% in 2006 to 20% in 2020.

Her scientific accomplishments include authoring or co-authoring 150 peer-reviewed journal articles, 72 extension publications, 24 book chapters, and more than 300 publications for *Acta Horticulturae*, trade, and newsletters. Her extension publications have served as production guides on berries, kiwifruit and grapes for multiple audiences. She has produced nutrient management guides and production cost studies for commercial growers.

During her career, she gave 16 invited keynote addresses. 98 presentations at scientific conferences and more than 480 talks at regional, national, and international academic and industry meetings. In addition, Dr. Strik organized 48 highly attended workshops and 59 field days for the general public. Her tradition included hosting separate annual strawberry, blueberry and caneberry field days for researchers and growers at the North Willamette Research and Extension Center, of OSU. During her academic career, Dr. Strik supervised 22 graduate students and 7 undergraduate honor's theses. Most of her students are now in academia working on fruit crops or have industry positions in berry companies. She taught three credit courses, Berry and Grape Physiology (HORT 452/552); Ecampus Berry Crop Physiology (HORT 456/556) and the berry crop and grape portion of HORT 251. She developed and taught separate online instruction sets including 5 pruning modules for berry, kiwifruit and table grapes, and a 6-week commercial online blueberry physiology and production systems course. In fall 2020, 284 students from 28 countries enrolled in her highly popular online blueberry physiology and production systems course. The students ranged in age from 21 to 77 and rated this class as 4.8/5. The impact of the production/physiology berry crops research program that she led has been estimated at \$10 million per year (evaluation by OSU economist 5 years ago) to the berry industries in Oregon.

In 2019, Bernadine was invited to Chile by the Catholic University as the main speaker of the third Chilean Berry Congress. In that meeting she presented talks on blueberry culture and physiology. She not only taught growers, field managers and students (undergraduate and graduate), but also researchers and professors from various universities. In those talks her deep knowledge on the various topics, and her wisdom in designing experiments, implementing treatments, and collecting and analyzing data were evident to everyone. Indeed, the world berry industry was very fortunate in having Dr. Bernadine Strik as a researcher, extension specialist, and professor for over 35 years. Her scientific accomplishments on blueberries showed that:

- High density plantings (0.75 to 1 m spacing) produced 50% more fruit during establishment years and continued that productivity as mature bushes compared to plantings with wider spacing.
- A simple T-bar trellis with two wires improved hand or machine harvest efficiency. Without trellis, 20-24% of the fruit production was lost on the ground.
- Pruning practices that left 30 flower buds per plant in the second year after planting increased yield. Previously, bushes were unharvested until after 3 years.
- Weed mat with sawdust increased yield up to 10% because of the higher soil temperature. Weed mat also led to fewer herbicide sprays for conventional growers per year and quickly paid for itself.
- Yield was dramatically improved if plants were grown on raised beds versus on flat ground.
- Organic growers could reduce the amount of fish fertilizer that was being applied by half and obtain increased yield on 'Duke'. Fish meal added more potassium than was needed.

As a compilation of much of these findings, she co-published new nutrient requirements, leaf tissue standards, and new options for fertigation of northern highbush blueberries.

Many groups and societies recognized Dr. Strik for her educational and scientific achievements: the OSU Alumni Association's Distinguished Professor Award; the Fellow Award for the American Society for Horticultural Science (ASHS) (2007); the Outstanding Graduate Educator Award, ASHS (2015); North American Raspberry and Blackberry Growers' Association Distinguished Service Award (2018); the Duke Galletta Award for excellence in horticultural research, North American Blueberry Council (2021); the International Society for Horticultural Science Fellow Award (2021); The American Pomological Society Chad Finn Ambassador Award (2021); Lifetime Achievement Award - recog-



nizing the Oregon Blueberry Industry's Friend (2022); and the United States Department of Agriculture B.Y. Morrison Memorial Lecturer Award (2022).

Dr. Strik was always gracious, witty and humble. Yet, her thought provoking, industry standard shattering findings catapulted her to great heights of global scientific respect and admiration.

"... all I ever wanted: to make the berry industries and growers more successful and profitable," Dr. Strik said, "[and] to know I made a difference."

Bernadine, your boundless energy, ethical principles, precise scientific protocol and numerous presentations have changed the world. You have been a guiding star for us all. Shine on!

> Kim Hummer, ISHS Council member, Former ISHS Board member Nahla Bassil, Molecular Geneticist, Past President American Pomological Society Jorge Retamales, Former Chair, ISHS Division Vine and Berry Fruit