Journal of the American Pomological Society 65(2): 62-63 2011

Dr. Douglas Shaw - 2010 Wilder Silver Medal Recipient

Douglas V. Shaw was born on April 26, 1954, in Chico, California and he attended Pleasant Valley High School in Chico from 1968 to 1972. He received his A.B. in Biology at University of California at San Diego in 1976, and his Ph.D. in Genetics at U.C. Davis working under Professor Robert W. Allard. His thesis title was: The mating system and population structure of Douglas fir (*Psuedotsuga menziesii* var. *menziesii*).

After graduating from UC Davis, he worked as a visiting scientist in The Finnish Agricultural University in Helsinki, Finland, for six months in 1981, and he was also a visiting scientist at the Swedish University of Agricultural Science in Ume, Sweden, in 1981 for six months. He was appointed Vice President for Breeding, Research and Nursery Operations with the International Forest Seed Company in Birmingham, Alabama, from 1982-1986. In 1986 he was appointed as Assistant Professor/Assistant Geneticist, Pomology Department, University of California, Davis. In 1992, he was promoted to Associate Professor/Associate Geneticist in 1992, and in 1998 was promoted to Professor/Geneticist, Pomology Department (now Plant Sciences Department).

During his tenure at U.C. Davis, Professor Shaw has used principles of population biology and statistics to make rapid, targeted improvements to key strawberry fruit and plant traits (flavor, fruit size, appearance, firmness, yield, extended fruiting period, harvest ease, low cull rates, postharvest quality, and environmental and disease tolerance). He has excelled in developing both short-day and day-neutral strawberry cultivars that have set new standards for yield, fruit quality, wide adaptation, and environmental and disease tolerance. His dedication and work have resulted in highly significant benefits to strawberry farmers, shippers, retailers and consumers worldwide.

Dr. Shaw is inventor/co-inventor of 19 strawberry cultivars, 13 of which are in commercial production today in California and throughout the world (these 13 cultivars are marked with an asterisk (*) in the list below). As of May 31, 2010, the total number of plants of these cultivars that have been sold through legal channels around the world is about 14 billion, enough to plant about 700,000 hectares of strawberry. The estimated impact of Dr. Shaw's cultivars on the world's strawberry economy exceeds many tens of billions of dollars in farm gate value.

In addition to his highly successful strawberry cultivar improvement program, Dr. Shaw conducts research on a wide range of strawberry production management issues, including soil fumigation alternatives, pest and disease control, bed mulches and other practices. Although Professor Shaw does not have an extension appointment, he maintains a very active extension outreach program and consults frequently with growers and shippers. He is grower-oriented and organizes and participates in numerous field days and research conferences throughout the state and worldwide.

Dr. Shaw taught classes at U.C. Davis in small fruit production and in Plant Genetics and Breeding for many years. During the past four years he has been one of three primary instructors for the new U.C. Davis Plant Breeding Academy which trains post-graduate plant breeders in plant breeding theory and practice.

Dr. Shaw received the American Society for Horticultural Science Outstanding Reviewer Award in 1995, and the ASHS Outstanding Fruit Cultivar Award for 'Camarosa' strawberry (with V. Voth and R. Bringhurst) in 1998.

Table 1. University of California Strawberry Cultivars developed by Dr. Douglas V. Shaw, 1994-2010. An asterisk (*) indicates cultivars in commercial use at present time.

Anaheim (Voth, Bringhurst, Shaw, 1994): Short-day cultivar with very high quality mid-season fruit production.

Camarosa* (Voth, Bringhurst, Shaw, 1994): Short-day cultivar with wide adaptation, high yield, excellent fresh/processing quality with excellent shelf life.

Carlsbad (Voth, Bringhurst, Shaw, 1994): Short-day cultivar characterized by high early-season yield and large fruit.

Cuesta (Bringhurst, Shaw, Voth, 1994): Short-day cultivar characterized by very early production of large fruit.

Laguna (Voth, Bringhurst, Shaw, 1994): Short-day cultivar with very high quality mid-season fruit production.

Sunset (Bringhurst, Shaw, Voth, 1994): Day-neutral cultivar characterized by high yields and very good tolerance to two-spotted mite.

Aromas* (Shaw, 1996): Day-neutral cultivar characterized by very high yields, a very long production season and excellent resistance two-spotted mite and a wide range of soilborne pathogens.

Diamante* (Shaw, 1996): Day-neutral cultivar characterized by high yields of large, excellent-flavored strawberries, with very long production season and good tolerance to two-spotted mite.

Gaviota* (Shaw, 1996): Short-day cultivar with excellent flavor and tolerance to soilborne pathogens; exceptional fruit quality and flavor.

Pacific (Shaw, 1996): Day-neutral cultivar with high productivity and tolerance to soilborne pathogens.

Camino Real* (Shaw, Larson, 2001): Short-day cultivar characterized by large, high-quality fruit, and excellent tolerance to rain damage and soilborne pathogens.

Ventana* (Larson, Shaw, 2001): Short-day cultivar characterized by very high early- and total-season yield, large, high-quality fruit and good rain tolerance.

Albion* (Shaw, Larson, 2004): Day-neutral cultivar with outstanding flavor and high productivity over a 9-month production season. Tolerant to soilborne pathogens; open plant canopy and low cull rates enable high harvest efficiency. The most widely planted cultivar in California (>13,000 acres in 2009) and the major day-neutral cultivar planted in Europe, South/Central America and Australia.

Palomar* (Shaw, Larson, 2007): Short-day cultivar with very early production of large, high-quality fruit; small compact plant and low cull rate enable rapid harvest.

Monterey* (Shaw, Larson, 2008): Day-neutral cultivar characterized by a large, high-yielding plant that produces very sweet fruit over an 8-9-month fruiting season, and generally good tolerance to soilborne pathogens.

Portola* (Shaw, Larson, 2008): Strong-flowering day-neutral cultivar with very high yields of large, high-quality fruit over an 8-9 month harvest season; excellent for spring, summer or fall plantings.

San Andreas* (Shaw, Larson, 2008): Day-neutral cultivar with very good flavor and high yields during an 8-9-month fruiting period. Exceptional tolerance to rain and to a wide range of soilborne pathogens, including *Phytophthora cactorum* and *Verticillium dahliae*.

Benicia* (Shaw, Larson, 2010): Short-day cultivar with very good flavor, excellent internal and external color, high yields, tolerant to *Phytophthora cactorum*, and good rain tolerance.

Mojave* Larson, Shaw, 2010): Short-day cultivar with very good flavor, consistently large fruit size, good color, high yields, tolerant to *Verticillium dahliae*, excellent rain tolerance with a low cull rate.

Prepared by Dr. Kirk Larson