The breeding of caneberryes (also referred to as brambles) has taken several directions in the last century. Red raspberries were of great interest throughout this time. Black raspberries received much more attention 50 to 75 years ago than they do today. Blackberries have gone from a crop that was largely in the realm of amateur breeders to a crop with several intensive breeding programs. Primocane raspberries, and now primocane blackberries, have revolutionized or will revolutionize their production and marketing. Breeders have played a critical role in these changes and in developing the caneberrys as major commercial fruit crops. Many caneberry breeders have been instrumental, each in their own way, in moving the science and art of caneberry breeding forward.

Several breeders that have played small but critical roles in caneberry breeding and are more commonly remembered for their contributions in other fields will be mentioned first. George M. Darrow (1899–1983), while only dabbling in caneberrys, provided the leadership at the national level for others who focused heavily on these fruits. He also is largely credited with getting the ‘Merton Thornless’ source of thornlessness into useful blackberry germplasm. James H. Logan (1841–1928), a California judge and hobbyist breeder, recognized the value of ‘Logan’ and made it available to the public at no cost, which was unusual for the time, thereby helping establish the northwestern U.S. processing industry. Byrnes M. Young (1858–1964), of Morgan City, La., originated the ‘Young’ dewberry (Youngberry), through which many red raspberry genes were brought into the blackberry germplasm pool. H. Ness, Sidney H. Yamell (1898–1981), and H.F. Morris, from Texas, developed cultivars such as ‘Nessberry’ (a parent of the still popular ‘Brazos’), which combined the trailing blackberry *R. trivialis* with red raspberry, that are adapted to warm climates with low chilling. Earl V. Goldsmith (1892–1954) and Stephen Wilhelim (1919–2002), with Sweetbriar Co. and Driscoll Strawberry Associates in Watsonville, Calif., are largely responsible for originally assembling the germplasm that has led to the most successful private raspberry breeding program in the world. Their vision for the type of plant needed for commercial production in California and for the type of fruit quality that was necessary for long distance shipping combined with their ability to incorporate germplasm from the U.K., Canada, and Sweden into the material they had available has led to the success of this program. Elwyn M. Meader (1910–1996) from the University of New Hampshire and Donald L. Craig (born in 1923) with Agriculture and Agri-Foods Canada, Nova Scotia, played crucial roles in the development of improved primocane fruited raspberries. Meader and the scientists at the New York Agricultural Experiment Station were responsible for bringing primocane fruiting from a novelty to commercial cultivars. Craig helped this process and pushed it further with the development of improved cultivars for eastern North America.

This reminiscence will highlight seven breeders who have made outstanding contributions in the last half of the 20th century.

**GEORGE F. WALDO**

George Waldo (1898–1985) (Fig. 1), while born in 1898 in Dayton, N.Dak., spent most of his early years in Dayton, Ore. He earned his BS from Oregon State College in 1922 and his MS from Michigan State College in 1924. He went immediately to work for the U.S. Department of Agriculture–Agricultural Research Service (USDA–ARS) in Glenn Dale, Md., where he was in charge of berry breeding from 1926–1932. In 1932, he and George Darrow, who was working as the berry breeder for the USDA–ARS in Oregon, swapped positions. This seemed to suit them both very well as Waldo had brought the ‘Merton Thornless’ source of thornlessness into useful blackberry germplasm. James H. Logan (1841–1928), a California judge and hobbyist breeder, recognized the value of ‘Logan’ and made it available to the public at no cost, which was unusual for the time, thereby helping establish the northwestern U.S. processing industry. Byrnes M. Young (1858–1964), of Morgan City, La., originated the ‘Young’ dewberry (Youngberry), through which many red raspberry genes were brought into the blackberry germplasm pool. H. Ness, Sidney H. Yamell (1898–1981), and H.F. Morris, from Texas, developed cultivars such as ‘Nessberry’ (a parent of the still popular ‘Brazos’), which combined the trailing blackberry *R. trivialis* with red raspberry, that are adapted to warm climates with low chilling. Earl V. Goldsmith (1892–1954) and Stephen Wilhelim (1919–2002), with Sweetbriar Co. and Driscoll Strawberry Associates in Watsonville, Calif., are largely responsible for originally assembling the germplasm that has led to the most successful private raspberry breeding program in the world. Their vision for the type of plant needed for commercial production in California and for the type of fruit quality that was necessary for long distance shipping combined with their ability to incorporate germplasm from the U.K., Canada, and Sweden into the material they had available has led to the success of this program. Elwyn M. Meader (1910–1996) from the University of New Hampshire and Donald L. Craig (born in 1923) with Agriculture and Agri-Foods Canada, Nova Scotia, played crucial roles in the development of improved primocane fruited raspberries. Meader and the scientists at the New York Agricultural Experiment Station were responsible for bringing primocane fruiting from a novelty to commercial cultivars. Craig helped this process and pushed it further with the development of improved cultivars for eastern North America.

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purple raspberry, blackberry, and strawberry cultivars, he also has a daylily and yew (Taxus sp.) named after him, was involved with nuts, and can be found repeatedly as a contributor to our knowledge of the minor fruit, such as pawpaw (Asimina sp.). His caneberry releases have had a dramatic commercial impact. His foresight in taking the character of primocane fruiting in raspberry and along with E.M. Meader (New Hampshire) developing elite germplasm that led to the release of ‘Heritage’ was novel. His ‘Darrow’ blackberry is still the cold hardy standard. However, he sold blackberries short when he told an audience that “there is no future in blackberry breeding because there is not enough variability.” Several scientists feel that he was operating in a very narrow gene pool and therefore did not see the variability that others like those in Arkansas, Illinois, and Oregon were able to exploit. Personally, Slate was highly respected, modest, and very nice. He and Darrow were competitive with each other but still friends. When Darrow was announcing the release of ‘Smoothstem’ blackberry, Slate asked “George, don’t you think they have awfully big seeds?” Darrow’s responded without missing a beat “That’s the way I like them. That way they don’t get under my plate.”

CHESTER D. (CHET) SCHWARTZE

Chester Schwartze (1902–1988) (Fig. 3) was born in 1902 in Yakima, Wash., to parents who ran a fruit orchard. He earned his BS in horticulture in 1924 and his PhD in 1935 from Washington State University. He took on the responsibilities for the strawberry and raspberry breeding program in 1932. His caneberry breeding emphasized developing raspberries that were suitable for processing and that were resistant to aphids and therefore the viruses they vectored. While his commercial strawberry cultivars were important for their time, especially ‘Northwest’, which accounted for 75% of Pacific Northwest production in the late 1960s (P. Moore, personal communication), and while ‘Rainier’ is still widely grown today, it was his release of ‘Meeker’ red raspberry that had profound impact on raspberry growing as it is one of the most widely grown cultivars in the world. Schwartzte really liked raspberries and despite excellent work on strawberries and blueberries, raspberries were his passion. While he was known as being somewhat reserved and conservative, he was also considered outgoing and funny. He and Waldo with the USDA–ARS in Corvallis while cordial and generally cooperative had a lifelong competitiveness that led each to claim that the other “never sent their best plant material to me.”

FRANCIS J. (WHITEY) LAWRENCE

Whitey Lawrence (Fig. 4) was born in 1925 in Towson Md. After serving in the U.S. Navy from 1942–1945, he earned his BS (1951), MS (1958), and PhD (1965) at the University of Maryland while working as an instructor and with I.C. Haut and F. Stark on everything from camellias to sweet potatoes along with berry crops. In 1965, he accepted the caneberry and raspberry breeding position with the USDA–ARS in Corvallis while cordial and generally cooperative had a lifelong competitiveness that led each to claim that the other “never sent their best plant material to me.”

JOHN (JACK) W. HULL

Jack Hull (1927–1976) (Fig. 5) was born in 1927 in Oklahoma City, Okla. He earned his BS from Oklahoma A & M (1950) and his MS (1955) and PhD (1958) at the University of Maryland. His PhD thesis on blackberry chromosomes was considered by many to be a classic piece of work for the time. While his first professional position was as an Assistant Professor at the University of Arkansas, it was the position he began in 1963 with the USDA–ARS in Corbandale, Ill., where he had the greatest impact. In the 10 years, from the time he went to Corvallis until the station was closed in 1973 he developed some of the most important semi-erect blackberry germplasm and cultivars. ‘Dirksen Thornless’ and ‘Black Satin’ were his first releases. ‘Hull Thornless’ and ‘Chester Thornless’, while released by USDA–ARS Beltsville, were his selections that had been tested at Beltsville after the Carbondale stations closed. Between his PhD and 4 years in Arkansas, he must have developed a great feel for the germplasm that should be gathered and put to use as those who succeeded him at Arkansas and who knew the Carbondale station said that he did not take much plant material with him from Arkansas nor did he have much in place in Corvandale. Hull was described as being a gentle person whose life’s ambition was to work with people and plants as individuals and not as crowds. Hull threw himself with intensity and enthusiasm into his work with great success. In reading and listening to descriptions about Jack or Wint as he was known by his family, he was