

In memoriam
J. Brent Loy, Plant Breeder (1941-2020)

Dr. James Brent Loy, husband, father, grandfather, friend, mentor, and plant breeder died on July 24, 2020 at age 79. He spent his last days with his family at their New Hampshire home.

Born in 1941, Brent's love of plants and agriculture began as a child in Bountiful, Utah, where he planted and tended his own vegetable gardens from a young age and, as a teenager, worked on a local truck farm before and after school. Brent received his bachelor's degree in horticulture from Oklahoma State University and master's and doctoral degrees in genetics and horticulture from Colorado State University before accepting a professorship at the University of New Hampshire in 1967, where he taught classes in plant genetics and reproduction and vegetable production and mentored many graduate and undergraduate students.

As a researcher, Brent contributed much to our knowledge of cucurbit genetics, physiology, and agronomy, but he considered himself, foremost, a plant breeder. In addition to his deep scientific and practical knowledge, he possessed an intuitive sense for crops and of traits valuable to growers and consumers. His patient and keen eye perceived subtle differences in often-overlooked traits that contributed to the performance of his varieties and, also, gave many of his varieties distinct aesthetic qualities.

During his five decades at UNH, Brent built a rich and diverse cucurbit breeding program that is now the longest lasting in North America. Based at the Woodman and Kingman Research Farms in Durham and Madbury, NH, he developed over 100 varieties of assorted melons, ornamental pumpkins and gourds, winter and summer squashes, interspecific *Cucurbita* hybrids, and hull-less seeded pumpkins. He always sought to improve eating and nutritional quality, agronomic performance, and aesthetic appearance in his crops. In 1981, he released his first variety, 'Autumn Pride', a bush *C. maxima* processing squash that exemplified his work in utilizing the bush trait in a range of squash types and species. Among his other unique breeding achievements are glabrous Slick Pik® yellow summer squash varieties, dioecious cantaloupes, high-eating quality acorn squash varieties like 'Honey Bear' and 'Sugar Bush', and high-yielding hull-less seeded pumpkins. His collaborations with seed companies resulted in the commercialization of dozens of these varieties that can be purchased from most retail seed catalogues and are grown in virtually all market farms in New England, and even throughout the US and beyond.

Brent was passionate about the importance of land grant universities and took his role as a public servant very seriously. He believed strongly in the scientific value of public plant breeding research and worked closely with the UNH Office of Intellectual Property to ensure that intellectual property rights of germplasm extended to breeders, especially since royalties generated from released material were vital in maintaining breeding programs. In fact, Brent's varieties have generated 29% of all of UNH's royalty earnings since 1999. In appreciation of his service, UNH awarded Brent their inaugural Innovator of the Year Award, which is now named after him.

Beyond plant breeding, Brent worked to educate growers and consumers about cucurbit eating quality, particularly in winter squash. He had a knack for communicating the practical applications of scientific findings, and he frequently spoke at growers' conferences about proper management and harvest strategies for achieving optimal eating quality. His broad interest in vegetable production and, specifically, in improving cultural conditions for melon production in New England led to work with plastic mulches and the development of infrared transmitting mulches.

Brent always possessed humility and never sought recognition, but he received many awards during his career, including the 2009 All-America Selections Breeders' Cup Trophy, the 2015 American Society for Horticultural Science Vegetable Breeding Working Group Award of Excellence, the 2000 Pioneer Award of the American Society of Plasticulture, and most recently, the Eastern States Exposition's 2020 New England Fellowship of Agricultural Adventurers Award. Each time he received some honor, Brent only remarked that he was glad to have contributed to agriculture. He valued his association with research and academic groups very much and had great respect for his colleagues. His attitude was not one of competition but collaboration, and he assumed the best intentions in everyone with whom he worked. He was endlessly generous with his knowledge—anyone who had an extended conversation with him learned something about breeding cucurbits.

Brent's persistent curiosity, creativity, and almost childlike wonder, even after a life of expertise, were inspirational. He became completely absorbed in observing his plants in the field or greenhouse and never ceased initiating novel and creative breeding projects, his most recent pursuits involving interspecific squash crosses both for F1 hybrid melon

rootstocks and for introgressing valuable traits among species.

As a friend, Brent was very supportive and laughed easily. He loved to chat, and he spoke of only two things: plant breeding and family. His unconditional love and support for his wife Sarah and their three children, Reed, Laura and Jamie, is evident in the success they have all had in their diverse endeavors. This familial love and loyalty might have been Brent's greatest attribute.

Brent's huge wealth of knowledge and experience will not be easily replaced. His family, friends and colleagues will miss him dearly.

(submitted by Dr. Loy's former field technician and M.S. student Jake Uretsky. Dr. Uretsky is a melon breeder with Sakata Seed America.)



Figure 1. Dr. Brent Loy in 2007 at the Woodman Research Farm in Durham, New Hampshire, USA, in front of plots of egg and spoon gourds (*Cucurbita pepo*). Materials like these were used as a source of genes in Dr. Loy's research on inheritance of fruit color patterns reported in CGC Report 35-36. (photograph courtesy of the University of New Hampshire)