

Sweet Corn

Florida is now the largest producer of fresh-market sweet corn in the U.S., and farm-gate value annually ranges around \$100 million. This success is directly attributed to the collaborative research efforts of Emil Wolf from the Everglades Research and Education Center (EREC) in Belle Glade, John Laughnan from Illinois Foundation Seed and George Crookham of Crookham Seed in Idaho. This public/private sector partnership started in 1959, and it continues to this day with a new generation of scientists. These original collaborators hoped to resolve the major production issues of the time, including extended crop shelf life and improved taste and quality.

They believed that Americans would consume more sweet corn if it was available for a longer portion of the year and if it had better eating quality.

They turned to a gene discovered and published in 1949, called the *shrunk-2* gene (*sh2*). It would provide the genetic foundation for the now ubiquitous “Super-Sweet” hybrids that permeate the marketplace both here and abroad, and it replaced the standard sweet corn gene known as *sugary 1*. But this effort was no quick success; it took nearly three decades for their work to come to fruition. By the middle of the 1980s, the Florida sweet-corn industry, along with the midwestern sweet-corn growers,

quickly began to accept *shrunk-2* hybrids.

Today, this industry is one of the most robust vegetable industries in Florida, and nationally, sweet corn is ranked second in consumption after tomato. Florida production uses about two dozen hybrids derived from about six different breeding programs. Over the years, the FAES breeding program, currently led by Brian Scully at the EREC, has contributed an array of products, including hybrids and inbreds, along with germplasm that serves as the raw material for the development of future hybrids.



Sweet Corn Germplasm Developed and Released from FAES

Germplasm	Genetic Class	Date of Release
Florida 32	Inbred	1975
Florida 56	Inbred	1975
Florida Sweet	Hybrid	1974
Florida Staysweet	Hybrid	1978
Florida XP-7	Hybrid	1994
UFISH 8008	Inbred	1994
Zaplote Chico sh2	Population	2000
Snowstorm	Hybrid	2001
UFISH 8029	Inbred	2001
NE-EDR sh2	Population	2001
NE-EDR su1	Population	2002
NE-EDR bt1	Population	2002
Zapalote Chico 2451F	Population	2003