An Association with the Rutgers Tree Fruit Breeding Program Starting 50 Years Ago

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There are many that could tell you about Rutgers tree fruit varieties in New Jersey and around the world. Currently, Dr. Joe Goffreda is Director of the Rutgers NJAES Fruit Breeding Program. Dr. Dan Ward is the Rutgers NJAES NJ tree fruit specialist that works with new varieties at Rutgers today.

I am Professor Emeritus and former South Jersey Tree Fruit Agent. I do consulting work for the New Jersey Peach Promotion Council and Adams County Nursery (ACN). Jen and Phil Baugher at ACN have an excellent web site www.acnursery.com that is a good source of information on Rutgers varieties. ACN nursery sells more fruit trees of Rutgers varieties world wide than any other nursery. Our Peach Promotion Council website http://jerseypeaches.com. has a lot of information on NJ peaches.

Saturn flat peaches at a farmers market in London, England.

Win Cowgill, Professor Emeritus and former North Jersey Tree Fruit Agent has also worked with and tested Rutgers apple, peach and apricot varieties in northern NJ for the past 35 years. Win is now a private consultant for fruit growers, www.wincowgill.com. Win would not have become involved in the fruit research and extension profession if it had not been for Dr. Hough offering him a Gerber Baby food assistance ship at Rutgers to get his masters and work in fruit breeding in 1975.

Dr. Goffreda is the current source for information on Rutgers varieties. The New Jersey Agricultural Experiment Station breeding program was started about 1908 and has been going strong for the last 108 years. My association with

the program began almost 50 years this spring when I began working as a graduate student for Dr. L Fredric Hough and Dr. Catherine Bailey.

Many fruit breeders from around the world were trained at Rutgers by Hough and Bailey. Probably more than from any other educational institution. When these students went home, they often shared germplasm and pollen from their home country breeding programs from around the world with Hough and Bailey. Much of this Rutgers germplasm collected by Dr. Hough, his predecessor Professor Blake and maintained by Dr. Goffreda has been distributed to breeders worldwide. This sharing has indeed had a world wide impact on the development of new fruit varieties. Dr. David Byrne at Texas A&M was trained at Rutgers, Dr. David Ramming of California and Dr. Connie Feliciano of Brazil were all trained at Rutgers and the varieties of stone fruit and grapes in California Texas, Mexico and Central America. Many of these have lower chilling varieties that have expanded peach cultivar establishment and if we were to continue to have changes in our climate we may see more of these grown in the Middle Atlantic.

Jerry looking at flat white peaches in Bergan, Norway.

Dr. Hough turned his fireblight resistant germplasm collection over to the USDA in Kerneysville, WV. Many new European pear cultivars have been released from the USDA program in recent years by Dr. Richard Bell some with fireblight resistance and some with psylla resistance.

Dr. Hough and Bailey introduced the peach variety Blake in the 1950's which is still planted and was for many years a major peach variety in South Carolina and the southeast in the big peach growing areas. It was also planted in New Jersey. Of course there were hundreds of varieties before and after this that were grown. In the early 1960 the peach variety Sunhigh was a standard for flavor and quality and is still grown for local sales today. Jerseyqueen was a popular variety introduced in the 1960's and is still grown. Encore was a peach I selected and bought in 1974 from Drs. Hough and Bailey in the Rutgers program when I was Director of Research and Product Development at Stark Bros. Nurseries in Missouri. It was and is widely grown throughout the Midwestern US because of it ability to withstand cold winters. During the last tree fruit survey done in 1999 in New Jersey Encore was the number one peach in the state but since late maturing peaches have lost favor and is not planted much today but may still be in the top 15 in production.

At that same time, I bought the variety Saturn for Stark Bros for home garden sales because of its novel (flat or bagel) shape and exquisite flavor. An enterprising grower and marketer in California started promoting it as a donut peach and trademarked the name. The variety is widely marketed in super markets as a Donut peach because of the freedom of the small pit which pops out and people can eat it like a doughnut. Practically every grower in NJ grows Saturn or the variety Galaxy which is later and larger. Galaxy is an offspring of Saturn.

Dr. Goffreda has introduced other flat or donut like peaches with Adams County. One called TangOs I has made quite an impact in California. I could go on and on about Rutgers Peach, Nectarine and Apricot varieties that I have seen and evaluated all over the US and world including Canada. The recently introduced variety Desiree is very popular in Ontario and the peach varieties Gloria and Messina are doing well and planted all over the eastern peach areas. There are many new and novel

Gloria Peach –Tested as NJ351 – Mid-season yellow peach (+25) resistant to bac spot.

peaches and apricots being developed by Dr. Goffreda and will be introduced by Adams County Nursery. Six are being patented this year and 5 were introduced in 2014 that included Silvergem, low acid white fleshed nectarine, Avalon yellow fleshed nectarine, Scarlet Rose slow ripening cream red fleshed peach: July Rose low acid white fleshed peach and August Rose a late mid season low acid white fleshed peach. These new varieties are both somewhat novel and with withstand the climate changes of the next 10-15 years.

Not to be overlooked is the apple breeding program. Dr. Goffreda has some exciting new varieties of apples that will be introduced. In 1947 Dr. Hough identified a gene in crab apples that had resistance to the major apple disease called apple scab. That variety with the gene has been carefully selected and crossed with many other apples and today there are varieties with immunity and resistance to apple scab that have been introduced through the PRI breeding program; the Purdue University, Rutgers and the University of Illinois.

The Vf gene has been incorporated in a series apples have been introduced including the most popular Red Free, Enterprise, Goldrush and Crimson Crisp. I am sitting here eating a Goldrush, my favorite winter apples, as I write this.

Many of the other scab immune apples have these cooperative Rutgers varieties in their parentage developed all over the world. Jerseyred was the first apple developed at Rutgers and when I came to NJ in 1981 to work on the Rutgers faculty it was the number one processing apple for slicing and whole canned apples, Britemac tested as NJ 3 looks like a McIntosh and was a favorite of north Jersey Orchardists.

This industry has disappeared. An apple introduced shortly before I worked in the apple program in the 1960 was Mollies Delicious and late summer early fall apple is still planted for its late season flavor. Suncrisp tested as NJ55 is also very popular today in the northeast and in British Columbia. It is a late season yellow skinned apple with great storage quality

I will close by saying one of the best pieces of fruit I have ever eating in 50 years of evaluations is a white fleshed apricot called Sugar Pearls, recently introduced by Dr. Goffreda. Dr. Goffreda continues to work with apricots and has many promising advanced selections. Early Blush and Orangered are two of his yellow fleshed introductions

I am sure all of the people I have mentioned could more information on the fantastic program that has meant so much to the Eastern fruit industry.

Jerry is a Professor Emeritus from Rutgers University and a consultant for Adams County Nursery. He can be reached at Jerry@acnursery.com. Win is private consultant, owner of Win Enterprises International, LLC. He can be reached at wincowgill@mac.com and http://wincowgill.com. Joe Gofredda can be reached at Rutgers University goffreda@aesop.rutgers.edu.

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