

"Retro" Rutgers Tomato

by Kim Goodwin '05

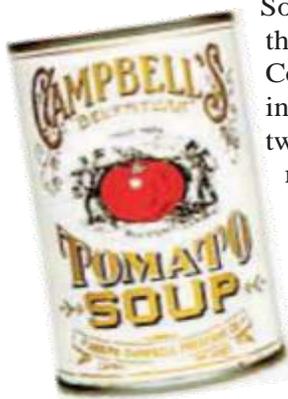


Between the world wars, New Jersey boasted many commercial tomato growers and processors, including Campbell Soup, Heinz, Hunt, and some smaller firms. New varieties of tomatoes were continually developed to serve their interests, with an emphasis on breeding resistance to

disease while still maintaining flavor. Modern tomato breeders have placed more focus on attributes that facilitate shipping and mass marketing, such as firmness and uniform ripening and appearance. Many flavorful old varieties of tomato are no longer available.

As a result, heirloom tomatoes have grown in popularity as a niche market for home gardeners and farm markets.

In recent years, Rutgers NJAES has been working on bringing some of the older hybrid varieties back for home gardeners and local farm markets as well. Seeds of the popular Ramapo and Moreton are available through the Rediscover the Jersey Tomato project: <http://njfarmfresh.rutgers.edu/JerseyTomato.html>. More "old time Jersey Tomato" seed offerings will be added in the next few years, including the Rutgers Tomato, but the process has been complicated.



Some history: In 1928 the Campbell Soup Company, then located in Camden, NJ, crossed two leading tomato varieties:

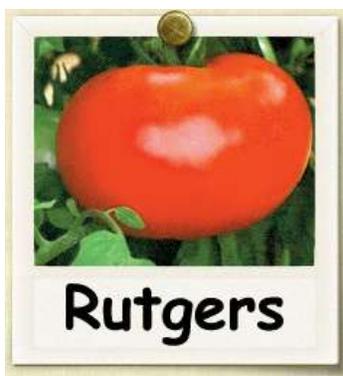
Marglobe and JTD (named for Dr. John T. Dorrance, the chemist who invented condensed soup). The following year, Rutgers

plant breeder Lyman Schermerhorn selected what he considered to be the best of those plants. For the next six years, he conducted field tests and made further selections until, in 1934, he released the most superior selection as the "Rutgers" tomato. According to a Rutgers webpage (<http://www.njfarmfresh.rutgers.edu/WhatabouttheRutgersTomato.htm>):

Rutgers was a genuine horticultural improvement over non-certified saved seeds, as well as over commercial varieties like Pritchard, Marglobe, and J.T.D. (the latter two used as breeding sources to create Rutgers).

Breeding objectives resulted in an amazing array of improved attributes, including:

- Pleasing flavor and taste of the juice;
- More uniform sparkling red internal color ripening from center of the tomato outward;
- Smooth skin;
- Freedom from fruit cracking;
- 'Second early' maturity;
- Handsome flattened globe shape;
- Vigorous healthy foliage to ripen more fruit and reduce sunscald;
- Firm thick fleshy fruit walls for its time, though considered extremely soft by today's definition of tomato firmness;
- Uniformity true to type in the field.



In 2011, NJAES was provided with Marglobe and JTD seed (the varieties originally crossed) from Campbell Soup Company, and an effort was begun at Snyder Farm to recreate the original Rutgers tomato.

Rutgers thereby provided a top performing hybrid tomato for New Jersey's processors, including Campbell's Soup and Heinz, and the Rutgers tomato continued to be a preferred choice of commercial growers through much of the mid-twentieth century. It was grown worldwide, and used in breeding and selection of other improved varieties. Even after it was no longer grown commercially, the Rutgers tomato remained popular with home gardeners. However, the Rutgers tomato seeds still available through many home garden seed catalogs are derivative selections from the original, possibly even different cultivars. Home gardeners have suggested for years that these seeds produce fruit that is markedly inferior to the old Rutgers tomato they remember.

Unfortunately, original seed was never maintained at Rutgers NJAES. The earliest seeds found from a seed bank date from the 1950s, and it is not clear how closely matched they are to the original Rutgers seeds. In 2011, NJAES was provided with

Marglobe and JTD seed (the varieties originally crossed) from Campbell Soup Company, and an effort was begun at Snyder Farm to recreate the original Rutgers tomato. In 2012, Dr. Tom Orton, vegetable breeding specialist at Rutgers NJAES, and Peter Nitzsche, agricultural resource management agent of Rutgers Cooperative Extension of Morris County, began field trials, selecting out the plants that most resembled the documented attributes of the original Rutgers tomato. From these selections, further field trials were run in 2013 and 2014, with successively narrowed selections. The results will soon be made available as "retro" Rutgers tomato seed.