

What's in Season from the Garden State

Bi-weekly Highlights from Rutgers Cooperative Extension

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In Praise of New Jersey Fall Squash and Rutgers NJAES 'Better Eating' Squash Contributions

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Farmer Jim Sansone, of Sansone's Farm Market on Rt. 518 in Hopewell, NJ, sells mini pumpkins directly to restaurants where they are served whole, adding taste and color to the plate as a beautiful side dish.

Acorn Squash. Spaghetti Squash. Butternut Squash. Scallop Squash. Small Pumpkins.

Bake them. Make rich fall soups. Or microwave squash with convenience and ease. Roast the seeds for a healthy snack. Plant breeders the world over provided us great advances in the eating quality and variety of fall squashes in the last 50 years.

For people who love to eat healthy, there is an endless variety of New Jersey squash tastes, colors, shapes, and culinary uses available at your local New Jersey farm markets.

For New Jersey's farmers who grow fall squash for you, there are vigorous F1 fall squash hybrids that mature earlier, have multiple disease resistance, compact plant habits, and superior yields. More vigor and earlier maturity means less time in the field, reducing risks from poor weather. Multiple disease resistance means less risk farmers will lose everything from viruses and diseases. Compact plants make it easier for hardworking farm laborers to find squash near the crown of plants.

Contributions of Rutgers' NJAES Oved Shifriss to our World of Squash

Less spoken among of the world-class squash innovations in the last half-century were the remarkable contributions of a humble Rutgers New Jersey Agricultural Experiment Station (NJAES) scientist, Oved Shifriss. Oved was a world authority on the genetics and breeding improvement of all plants in the squash family, named Cucurbits, and worked on them during the 1950's through the 1970's.

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New Jersey Department of Agriculture's Jersey Fresh Availability Report

Current:

Arugula and Cilantro
Baby Arugula & Baby Spinach
Basil
Beets
Cabbage
Dill & Parsley
Cucumbers/pickles



Eggplant
Escarole/Endive
Greens: collards, kale, Kholrabi, mustard, dandelions & Swiss Chard
Leeks & Green Onions
Nectarines
Peaches

Peppers
Radishes & Turnips
Squash: yellow, zucchini, acorn, butternut, & spaghetti
Sweet corn
Tomatoes
White Potatoes

Forecast (start date):

Broccoli - 3rd week of Sept.
Brussel Sprouts - mid-Oct.
Cauliflower - mid-Oct.
Cranberries - early Oct. (white cranberries - 3rd week of Sept.)
Lettuces & Spinach - 3rd week Sept.
Sweet Potatoes - mid-Sept.

Where to find Jersey Fresh? Ask for it where you shop or dine or go to <http://www.jerseyfresh.nj.gov>



To receive these reports by e-mail: njfarmfresh@rcr.rutgers.edu

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<http://www.rcr.rutgers.edu/county>

Precocious Females

For example, many squash have long vines. The vines tend to produce a long succession of male flowers. Male-male-male-male-male-male-male... then finally female!... way out on the vine, later in the season. Since a pollinated female flower becomes the squash we eat, this seemed terribly inefficient, wasteful, risky, and slow to wait for all those useless male flowers before the squash plant produced fruiting female flowers.



Examples of precocious yellow gene in acorn squash. Yellow and Golden Acorn Squash from Sansone's Farm Market, Hopewell, NJ.

Through rigorous, but traditional, plant genetic improvement techniques over many years, Oved Shifriss pioneered *precocious female flowering* in Cucurbits. Not only did this make it better for farmers, precocious female flowering made it easier to develop compact bushy, easier to pick squash plants for your smaller home gardens today. Moreover, this pioneering work supported the whole pickling cucumber industry as we know it today.

Precocious Yellowing Gene

Professor Shifriss identified a gene in squash he named the precocious yellowing, or *B*, gene. The Jersey Golden Acorn Squash, developed at Rutgers by Oved's graduate student Harry Paris, was an early improvement with the *B* gene. When this *B* gene was incorporated into squash varieties, Oved noticed that the carotene content, a precursor of vitamin A content, varied widely, in some squash varieties improving many fold over normal squash.

Squash—fun to eat, good for us, easy to grow and prepare, easy to store, tolerant of varying growing conditions—are not known as a rich source of healthy vitamins. Oved had dreams of creating squash varieties that rivaled important world food crops for vitamin A and nutritional value. Oved shared this *B* gene with plant breeding

companies around the world. For the last 20+ years, it has been incorporated into some of the most attractive new squash varieties on market shelves. The recent small garden pumpkin “Autumn Gold” has Professor Shifriss' *B* gene, and turns bright orange earlier in the season.

For commercial farmers, the *B* gene improved zucchini squash so they no longer showed symptoms from plant viruses that previously made zucchini squash unmarketable. This included popular varieties like Multipick F1 yellow zucchini.

We are entering New Jersey's peak time for enjoying eating and ornamental uses of bright yellow and orange squash, pumpkins, and gourds. Enjoy them *now*, and remember the world-class contributions from Rutgers' NJAES Oved Shifriss.

Squash, zucchini and pumpkin recipes can be found on the New Jersey Department of Agriculture's Jersey Fresh website at: <http://www.jerseyfresh.nj.gov/recipes/recipefile.htm>

