Expansion of the New Jersey Weekly Apple Maturity Review in 2024

Megan Muehlbauer, Rebecca Magron, Kaitlin Quinn, Janine Spies New Jersey Agricultural Experiment Station, Rutgers University

The NJ Apple Maturity Review website was established in 2021 and has continued to grow with the financial support of the New Jersey Horticulture Society. The purpose of the website is to provide New Jersey fruit growers with weekly reports on stages of apple maturity based on variety and location. In 2024 the project was expanded to include 47 cultivars across 8 locations in northern and central New Jersey.

Beginning in late August 2024 apples were consistently collected from varieties expected to reach maturity within 1 to 3 weeks. Sampling occurred weekly; depending on varieties present at each orchard, between one and eight orchards were sampled each week. Eight

apples were collected from high, low, shielded and exposed areas of the tree for each variety at each farm., Samples were transported for laboratory analysis and measurement of several characteristics, including: average fruit diameter; average percentage red surface color; average soluble solids (% sugar); average pressure (lbs.) and average starch rating. Lastly tasting notes were recorded by one calibrated taste tester.

All data was inputted on a report on the Apple Maturity Website URL: https://njapplematurity.rutgers.edu/. At the top of each report the optimal measurements for each apple maturity indices were listed as a reference point. An example of a report is illustrated in Figure 1.



September 20, 2024

BY MEGAN MUEHLBAUER • SEPTEMBER 20, 2024

Location	Variety	Fruit Diameter (in)	Soluble Solids (% Sugar)	Pressure (lbs)	Starch Rating	Percentage of Red in Surface Color	Tasting Notes	Comments	Photo
Optimum:			12-14% SSC	13-15 lbs	6-7				
Blairstown	Early Fuji	2.3″	13.3%	16.10	6.3	75%	Sweet	Ready	
Blairstown	Jonagold	2.7″	13%	16.31	4.5	50%	Crisp, starchy	Not Ready	
Blairstown	Empire	2.5″	10.9%	19.61	4.5	50%	Very sweet, flavorful	Ready	
Blairstown	Spartan	2.4"	11.8%	17.3	6.5	70%	Juicy, tart	Ready	
Hackettstown	Brookfield Gala	2.9″	13.6%	18.74	7	90%	Tart, crisp	Ready	

Figure 1. An example of a portion of one of the weekly reports published on the New Jersey Apple Maturity Website.

Table 1. Statistics on the number of views and visitors obtained from the Jetpack App linked to the NJ apple maturity WordPress website.

September October November Views 250 647 152	Eight posts encompassing samples collected from 8 locations and 47 cultivars								
Views 250 647 152		September	October	November					
	Views	250	647	152					
Visitors 152 502 106	Visitors	152	502	106					

Readership for the website was high throughout the 2024 harvest season (Table 1). as expected, the greatest number of views and visitors, 647 and 502 respectively, were during October when the vast majority of apples were coming into maturity.

Growers throughout New Jersey, the MidAtlantic and New England are all encouraged to subscribe to weekly in season E-mails of the reports. https://njapplematurity.rutgers.edu/.



Brookdale & Farm Supplies

Toro Tempus Ag Controller, a revolution in automation

The toro tempus ag controller allows for full farm automation. Tempus Ag uses a LoRA radio signal to create a bubble which allows for system automation. 1 base station produces a LoRa bubble of 5,200 feet in diameter. Multiple base stations can be added to cover large areas over one network for the entire application. The base stations can be operated on Wifi or with a 4G wireless signal. It can run irrigation cycles as well as collect environmental data, allowing growers to adjust their irrigation schedules as needed. Tempus Ag can report on a variety of sensors; temperature, pressure, soil moisture, humidity and more. Tempus can send alerts via text or email at thresholds determined by the user. Call us to design your custom system.







RAS-Rotary Mower. Ideal for mowing orchard rows.



SweeperIdeally for keeping under the trees clean for PYO.

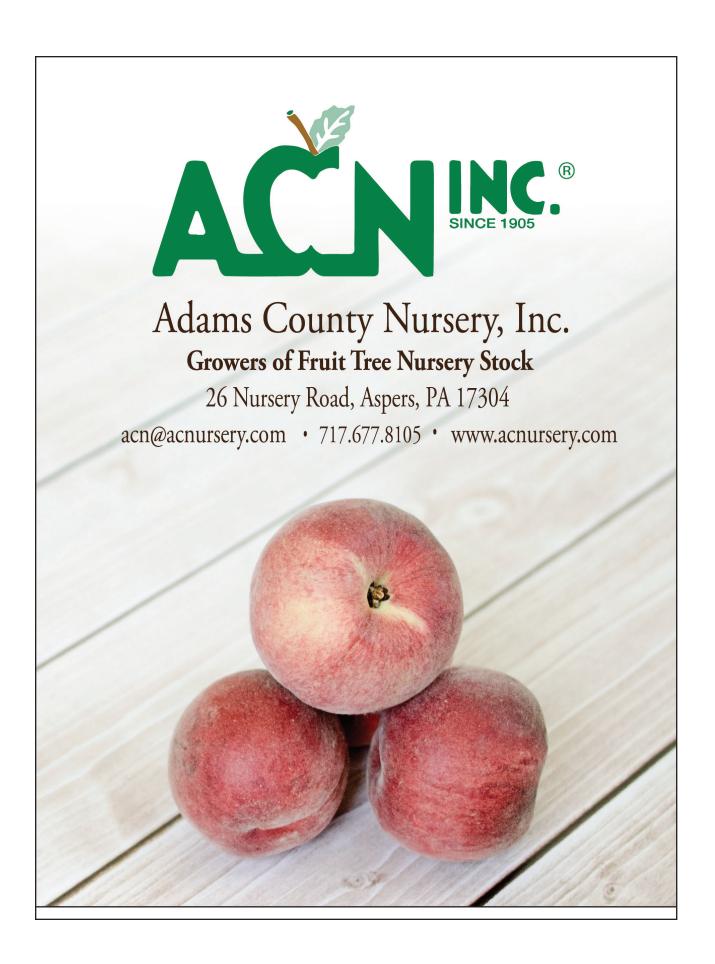


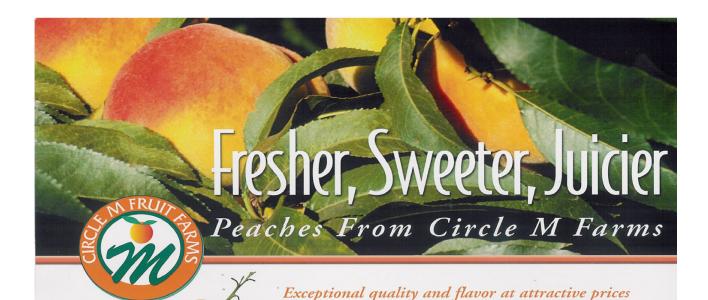
Brookdale Farm Supplies

Shredder/Flail Mowers
Ideal for chipping brush, managing
field edges, handling cover crops

38 Broad Street Hollis, NH 03049 603-465-2240

www.brookdalefruitfarm.com





 PLU Stickers Available Upon Request

- Low in Calories
- Nutritious and Delicious
- Exceptional Flavor



SANTO SAYS...

"Peaches from Circle M Farms just plain taste better. Their size and color are what your customers want, and their flavor is the icing on the cake.

That's because our orchards are tended with care and attention, and their fruit is left on the tree to ripen naturally until they reach their optimum sweetess. Then they are picked by hand, taste-tested by me to ensure quality, and packed gently into

25 lb. volume boxes for shipping. Single layer cartons are available upon request.

Brought to you from the 4th generation family

farm of Santo John Maccherone

Circle M's 30 varieties of peaches and nectarines are known for their sweetness and their luscious color. They look as good as they taste.

Discriminating customers appreciate our white flesh peaches because of their lower acid levels and supremely sweet taste.

Add it all up: Peaches from Circle M Farms are fresher and sweeter, picked by hand when their time has come, and packed with care for a longer shelf life.

Yellow, white and donut peaches and yellow and white nectarines are available early July to late September."

Call us at 856 856 207-4542 or 609 381-6465. Fax your order to 856 878-0404





Made from fresh New Jersey Peache: "Peach Cider Drink, Peach Salsa, Peach Preserves"

Santo John Maccherone circlemfarmsllc@gmail.com

Circle M Farms 88 Sandy Ridge Road Salem, N.J. 08079