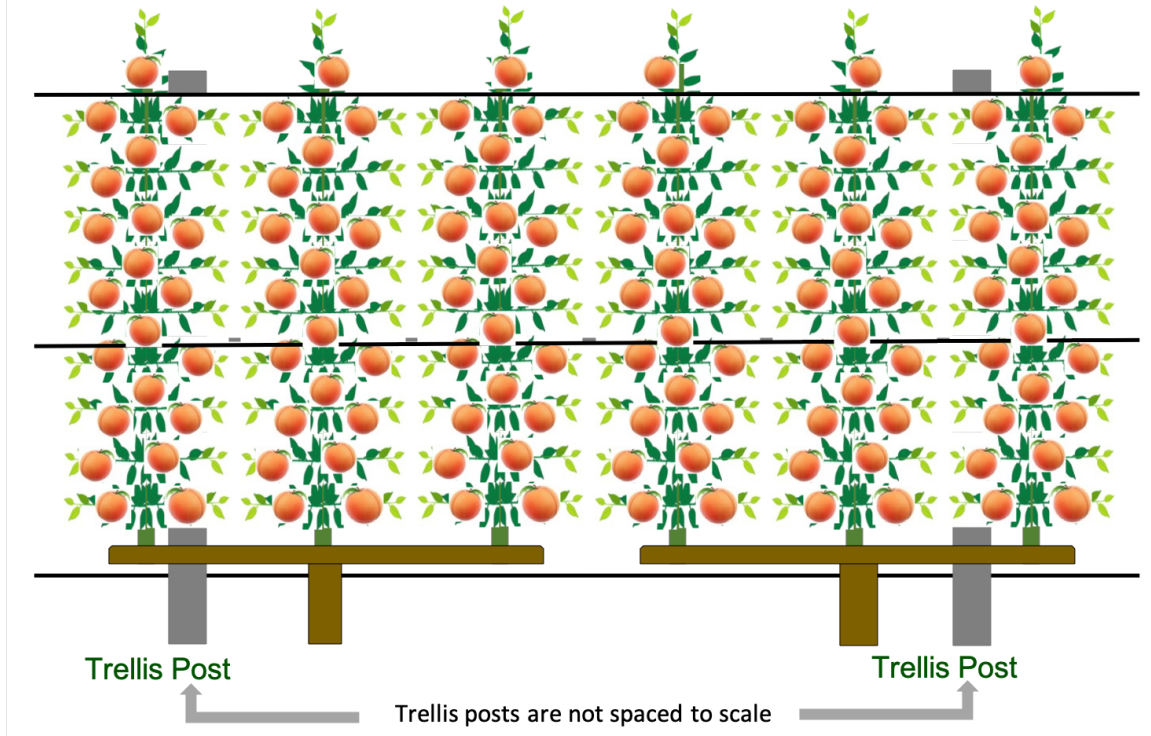


You Say You Want a Revolution? Well, You Know, We All Want to Change the Stone Fruit World

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Fresh market producers of the large stone fruits (peaches, nectarines, apricots, plums) have not seen the advances in production techniques that have dramatically impacted apple and sweet cherry production over the past 25 years. While overall apple production has increased only slightly, it has become much more productive per acre. Sweet cherry production has not only increased dramatically, but has also become much more productive per acre.

25-Year U.S. Fruit Production and Acreage Trends (5-year averages)

Apple	1995 5-Yr:	5,347,000 tons	463,000 acres
	2020 5-Yr:	5,463,000 tons	308,000 acres
		+2% Increase in tonnage	-29% decrease in acreage
Cherry	1995 5-Yr:	184,000 tons	52,000 acres
	2020 5-Yr:	362,000 tons	88,000 acres
		+97% increase in tonnage	+69% increase in acreage
Peach & Nectarine	1995 5-Yr:	1,444,000 tons	199,000 acres
	2020 5-Yr:	565+133=698	96,000 acres
		-52% decrease in tonnage	-52% decrease in acreage

This is largely due to a lack of vigor-controlling rootstocks that have been the foundation of higher density orchards comprised of smaller, more labor- and light-efficient apple and cherry

trees. Within the past 10 years, several new stone fruit rootstocks with various levels of vigor control, as well as innovative new canopy training and management concepts and techniques, have closed the stone fruit gap with their tree fruit cousins. Largely driven by increasing labor costs and decreasing labor availability, a prerequisite for sustainably profitable stone fruit production are orchards that are most efficient for thinning and harvest, including fewer picks to get tree-ripened fruit to market.

With the additional area of rapidly advancing digital orchard technologies and robotics, the next 10 years of production innovations is poised to truly change the world for stone fruit growers. These technologies are optimized when tree canopies are not only smaller, but also simplified into “two-dimensional” or “planar” fruiting walls comprised of a matrix-like arrangement of fruiting structure, such as the Upright Fruiting Offshoots (UFO) training system. However, due to bearing habit, this structure must be modified to promote lateral shoot growth, resulting in each multiple offshoot (or mini-leader) being pruned like a Super Slender Axe (SSA).

This presentation will review these recent and on-going innovations and technologies that promise significant improvements in fruit quality and ripening uniformity, labor efficiency, mechanization potential, and precision management that could help stone fruit growers in the Great Lakes region achieve consistent, profitable, high-quality crops for regional wholesale and farm market opportunities.

