

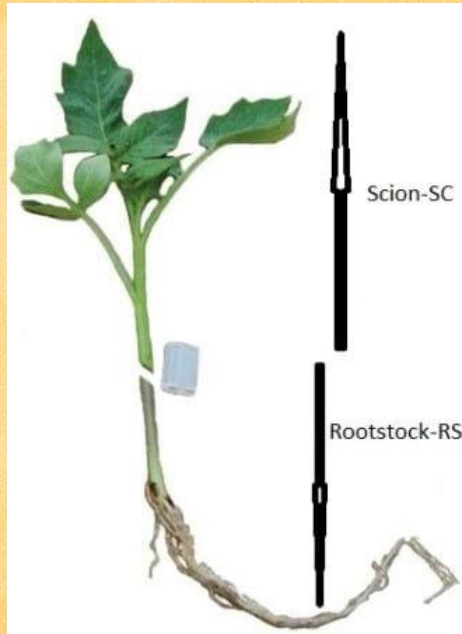
Comparing Yields and Successes of Grafted and Ungrafted Tomato Plants



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Why Use Grafted Tomatoes?

- Rootstock selected for improved vigor and resistance to soil borne diseases and other soil issues



About the Research Project

- Took place in 2021 at the Southwest Research and Education Center in Mt. Vernon, Missouri
- Research team included myself, Robert Balek, Patrick Byers, Eileen Nichols, and David Middleton
- Compared grafted and non-grafted tomatoes in both high tunnel and field plantings
- Purpose of the project was to introduce area farmers and backyard growers to grafted plants through educational field days and workshops
- **Raise awareness of the need for locally produced grafted tomato plants**



Sourcing Grafted Plants



- **Plan ahead; Grafted plants are often grown to order (approx. 10 week turn-around)**
- **Price Comparison**
 - Shipping for 8 flats - \$127.90
 - **Big Dena** (produce very high yields of uniform, 8-12 oz., red fruits that are mostly smooth with slight shoulder ribs. Very good flavor with nice internal color and quality; indeterminate)
 - Ungrafted - \$0.93
 - Grafted - \$2.81
 - **Cherokee Purple** (heirloom; medium-large, flattened globe, 8-12 oz. fruits. Color is dusky pink with dark shoulders. Multilocular interior ranges from purple to brown to green; indeterminate)
 - Ungrafted - \$0.18
 - Grafted - \$1.60
 - **BHN 589** (well adapted to high tunnel conditions, combination of good fruit quality, shelf life, and flavor. High yield potential; 8-10 oz. fruit; determinate)
 - Ungrafted - \$0.35
 - Grafted - \$1.94
 - **Edox** (even ripening for whole-cluster harvest; rich, sweet flavor; attractive calyx, tight cluster spacing, firm fruit attachment, and exceptional shelf life make it ideal for marketing on the vine)
 - Ungrafted – \$0.49
 - Grafted – \$1.97



Edox



Big Dena



BHN 589



Cherokee Purple



High Tunnel Planting



Field Planting



Pruning



Educational Outreach





End of season tunnel clean-up



Take Aways

- Increase in yield outweighs the additional cost of grafted tomato plants
- There is a great need for locally sourced grafted plants and grafted plant education
- Unpleasant core on the grafted plants?



Resources

- **Kansas State University**
- **University of Oregon**
- **University of Missouri**
- **Webb City Farmers Market**



Special care considerations for grafted plants

