



Ecosystem Insights

Advice and Opinions for Organic, Biodynamic, & Holistic Orchardists

Starting an Orchard – Grafting Pt 1

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Grafting fruit trees is one of the easiest ways for any grower to start an orchard rather cheaply. If you're looking at a larger number of trees, then summer chip budding is my preferred method (its quicker and cheaper). Significant numbers of trees should be sourced as finished trees, direct from the nursery. In any case, your choice of rootstock is critical to your desired objective – a productive orchard. If you want larger trees for an orchard where trees are less densely planted, you should choose a larger rootstock. If you want a more modern, high density orchard then you need a dwarfing rootstock. There are many choices out there, each with their advantages and disadvantages.

Bigger rootstock (e.g., MM111) will give you more deeply rooted trees with greater stability, that can be expected to be longer lived. Plus, it will cost less to plant an acre of trees than with a high density style rootstock. But the tradeoff comes with a lack of precocity and reduced overall quality production. Production and precocity are value attributes of smaller, high density trees. Depending on the variety and rootstock, many larger trees (semi-dwarf -> semi-standard) can take 8-10 years to come into full production. Fruit quality can also be an issue since larger trees have more interior canopy shade that reduces overall photosynthesis and increases pest management issues.

Smaller trees (e.g., M9) are more productive and have greater precocity than larger trees. But the tradeoff with smaller trees is the higher upfront establishment costs including the need for a trellis, deer fence, and irrigation. As well, though we know quite a bit, we just don't know as much about some of the newer rootstocks, especially in the Geneva series; or we know too much, like all the problems that can come with the M9 clones. That said, you probably can't wait forever for trees to bear fruit and so a combination of smaller trees and using on-farm resources for the trellis system, can get you to a point where you have a viable orchard quickly without breaking the bank. Something we like to call a Happy Medium!

Rootstocks and finished trees can be found nationwide, though the newer rootstocks can be very difficult to impossible to find in quantity or at a decent price. In this case it is usually better to work with a nursery that has access to the types and quantities you're seeking. Older rootstocks, and especially the larger ones, are easier to find and much cheaper. While grafting or budding your own trees is a craft that everyone should acquire, success rates can vary and could have a significant impact on the number of trees available when planting time rolls around. Working with a local nursery can ensure higher success rates and lower overall risk to you. Though the cost per tree may be higher than what it costs you to make them, that is offset by the lower risk and that, generally speaking, you'll get the trees you ordered when it's time to plant.

There are several great local nurseries that I work with including [Cummins Nursery](#) (Ithaca, NY) and [Wafler's Nursery](#) (Wolcott, NY). Both are excellent nurseries with great selections for growers of all fruit types.

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