



# Ecosystem Insights

## *Pruning for Balance*

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**W**inter time is pruning time, one of the most rewarding activities of the year. It can be relaxing, there's no pressure, and you can daydream about all the great fruit to come while you revel in the season's beauty. Pruning also sets the stage for everything that comes the rest of the season.

First, be reminded that pruning is a dwarfing and invigorating process all at the same time. The harder you prune (the more you cut off), the stronger the growth response will be in the spring. As well, you're cutting off potential fruit – not such a bad thing, but you don't want to leave it all on the ground. Prune too little and the tree can't breathe and fruit quality suffers. Prune just enough and you get a well-structured, productive, and reliable tree.

Second, size matters!! While the basic principles of pruning are the same no matter what size trees you have, you will want to adjust your pruning style based on tree size and crop objectives. Some questions to ask – What size fruit do I want? Does this variety return bloom well? Is my fruit intended for fresh market or cider?

- **Sunlight** – first and foremost trees need light. Without light they can't photosynthesize, support a crop, enhance quality, or develop fruit buds for next year. As well, sunlight helps trees dry off quicker and reduces disease and insect pressure.
- **Air Movement** – when pruning, think about the air movement in your trees. Good air movement can help dry out trees after a rain, while helping moderate the temperature throughout the tree. This will help with fruit quality no what the intended use.
- **Housekeeping** – winter pruning is also a good time to remove old and diseased limbs. In fact, this is where I usually start because it gets some of the obvious cuts out of the way. Limbs typically produce quality fruit well into their first decade. But as they get older, their ability to produce quality fruit and well as their propensity for diseases suggests that keeping wood at an average of less than 10 years old will support a long-productive life for the tree.
- **Structural** – this is what it really gets down to: maintaining a solid tree architecture. In order for all of the above to be achieved, you need to prune your trees in a manner that ensures proper limb spacing, orientation, age, and size. Too many bigger, older limbs and you end up with trees that quickly decline in terms of the productive potential. Too many smaller, younger limbs and you end up with a tree that doesn't have enough bearing wood and low productivity.

The ideal tree is a good mix of young and old, big and small, properly spaced and oriented branches that permit good sunlight penetration, air movement, bearing and non-bearing wood for solid annual productivity. A healthy, physiologically active tree is the goal – and an annual pruning program will help ensure this. Even if you are shooting for distressed trees in order to drive down the vigor and drive up the concentration of fruit qualities, you still need to prune. Low-functioning and diseased trees will not produce fruit of any level of quality except poor. And by the same token being heavy-handed with the loppers will lead to trees being over-vigorous and susceptible to all kinds of pest issues. Pruning is an art and science. If you understand the science, then use your creative side to apply it, you may end up with an orchard that outlives you. Pruning, as in all things in life, is about balance. And balance is the secret to happiness.

**Ecosystem Insights: Advice and Opinions for Organic, Biodynamic, & Holistic Orchardists**

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