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ADVICE TO GROW BY » SONOMA COUNTY MASTER GARDENERS
**It's Garden space too small for fruit trees? Try
espaliering**



Espaliering can be a space saver in a small garden or narrow area and the technique makes it easier to harvest and manage pests.

Photo: EdWagner Chicago Tribune

Question: I want to plant fruit trees but I have a very small yard. Would you recommend an espalier? If so, which trees work the best and how do I start?

Answer: An espalier (pronounced ess-pah-lee-AY) can be any woody plant that is trained and pruned to grow in a flat plane against a wall, fence, trellis or between support posts. As a verb, espalier is the training and pruning of a plant to create this flat plane.

An espalier can be a space saver in a small garden or narrow area. It also can provide a decorative element by either drawing attention to, or hiding, a wall or fence. With an espalier system, fruit is easier to harvest and pests are easier to manage. Just remember that training a tree to an espalier takes time and patience.

Many fruit species can be trained on a trellis. The easier tree to work with grows on dwarf or semi-dwarf rootstock and has branches with numerous modified shoots or fruit spurs, usually less than 6 inches long.

Spur-bearing apple, pear and Asian pear trees are ideal for espalier training because they set flower buds on short shoots and produce relatively few vigorous upright shoots. But right now there are no dwarf rootstocks for pear trees; they require more room and diligent pruning to control their growth.

Tip-bearing fruit trees only set fruit on the very tip of longer shoots, which makes them more challenging to espalier. However, with proper summer pruning, tip-bearing apples on dwarfing rootstocks can be espaliered.

You can support the espalier on a trellis or with horizontal wires stretched between posts. A trellis should be rigid enough to support the tree and its fruit without sagging throughout its entire lifespan. If you use wire and posts, place the posts 8 to 10 feet apart and use turnbuckles to attach 10- or 12-gauge rust-resistant wire firmly to the posts.

You can add two to four layers of horizontal wires to the espalier trellis to support future growth. Attach the lowest wire 12 to 16 inches from the ground and add the additional wires 18 to 24 inches apart.

Plant the tree in the middle of the trellis. After you plant it, cut off the top to just above the bottom wire, leaving three to five buds. In the spring, when the buds produce new growth, choose the two strongest lateral shoots and let them grow outward on opposite sides of the trunk. They will become the bottom tier of the espalier. Direct the topmost new shoot upward toward the next wire, so that one day it will provide the buds for the second tier of the espalier.

After a week or two, when the lateral shoots have grown a few inches, use sisal twine to loosely tie each lateral shoot to a thin bamboo stake, like a splint. Over time, bend the shoots in a 45-degree to 60-degree angle.

Slowly continue bending the shoots so that eventually you can tie the splints and the lateral shoots to the lowest horizontal wire. Let the shoots grow along the wire and tie them to the wire farther along the branch as they continue to grow.

Tight ties constrict the branch bark and impede growth, so check on your ties several times during the growing year. As each branch expands, you may need to make new ties and loosen or reposition earlier ties.



You can support your espalier on horizontal wires stretched between posts or on a trellis.

It may take a year of growth for the vertical shoot, or leader, to reach the next wire and produce buds for the second tier of the espalier. If the tree grows well you can head back the leader to just above the second wire. If this growth doesn't happen in the first year, cut the leader at the end of the following dormant season to just above the second wire.

Each spring repeat the same process for each new tier, choosing one shoot for upward growth and two shoots for each direction of lateral growth. Always bend the shoots when they are new and supple.

When upright, vigorous shoots begin to grow from the horizontal branches. After they have reached 8 to 12 inches, prune the shoots during the growing season to three or four buds. With this approach, spur-bearing apples usually begin to form fruiting spurs or short shoots that end in terminal flower buds.

Vigorous apples and pears may continue to produce strong upright shoots from below those cuts. Thin the new shoots to leave only the weaker lateral shoots or cut them again to three buds. During the dormant season, thin the spurs to prevent overproduction. To reduce shading on the lower wires, do not let the top tiers grow wider than the lower tiers.

Although not as easy to train, other fruit trees that perform well on an espalier system include citrus, apricot, cherry, plum, pluot and pomegranate. You can follow the same training process as the one described with the apple. Then enjoy the fruits of your labor after two to three years of growth.

For more information, check out these resources:

- **The Home Orchard**, Chuck Ingels, Davis. UC ANR Publication 3485, 2007
- **How to Espalier** bit.ly/41LsOkx
- **Training a fruit tree into an espalier:** bit.ly/3SrTMuh
- **Espalier Pruning as an Art Form:** bit.ly/3SbTk25
- **Planting Bare-Root Fruit Trees:** bit.ly/48J4sdw
- **Pruning & Training:** bit.ly/3OfBXfr
- **The Basics of Pruning Trees and Shrubs:** bit.ly/3UcSMLM

Contributors to this week's column were Tim Coyne, Patricia Decker and Karen Felker. The UC Master Gardener Program of Sonoma County sonomamg.ucanr.edu, provides environmentally sustainable, science-based horticultural information to Sonoma County home gardeners. Send your gardening questions to scmgpd@gmail.com. You will receive answers to your questions either in this newspaper or from our Information Desk. You can contact the Information Desk directly at 707-565-2608 or mgsonoma@ucanr.edu.