

GROWING FRUIT TREES IN MONTANA

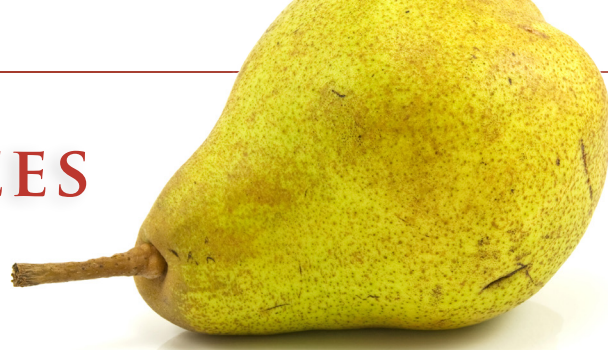


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There is no doubt that tree fruit can be produced in most parts of Montana.

by Brent Sarchet

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Contrary to what you may think, Montana has a rich history of tree fruit production, including beyond the more well-known fruit production areas in the Bitterroot Valley and around Flathead Lake. Through the Montana Heritage Orchard program (see side bar) and the fruit tree cultivar research MSU Extension is conducting at 10 different locations across the state, there is no doubt that tree fruit can be produced in most parts of Montana. Since the availability of fruit in most local food systems around Montana is limited, the time to plant fruit trees is now. So, what does it take to successfully grow fruit trees in Montana?

Site selection is the most important factor to consider when planting individual trees or an orchard. It is often the part that is overlooked because of the focus on varietal selection. What makes a good site? A good site has the following characteristics: deep, well-drained, fertile soils; southern aspect to maximize solar exposure; a slight slope to the south of 4 to 8 degrees; free of "cold pockets" (i.e., low lying areas where cold air will settle); windbreaks on the north and west sides (or the direction of prevailing winds) of windy planting areas; and dependable water at the site for irrigation. Another

site consideration includes fencing that is at least seven feet tall for deer, elk, moose, and other wildlife.

The next important consideration if you are planting an orchard, is the production system, with specific attention to the arrangement of trees. A traditional orchard has trees on a standard or semi-standard rootstock with tree spacing 20 to 30 feet apart (about 40 trees per acre). Fruit trees on a semi-dwarf or dwarf rootstock can be planted closer with about 200 trees per acre. A high-density planting with a trellis system may have trees spaced only three feet apart in rows with 1,452 to 2,200 trees per acre, depending on the training system. There are advantages and disadvantages to consider in each system. Research to decide which system is best for you. The production system you use will determine which rootstocks you may want to use and will influence varietal selection.

Variety selection is the next important consideration, but the rootstock selection is just as important. First, choose a rootstock for the size of tree you desire and one that has excellent cold hardiness, disease resistance, high yield potential, and no suckering. Finding the rootstock and varieties you desire may be a challenge, so start this search early and plan three to four years in advance. If planting several hundred trees, consider

contracting with a wholesale grower to propagate and grow the trees. In the variety selection process, consider the growing conditions of the site, as some types and/or varieties will be more adaptable than others. When it comes to tree fruit, apples are the most dependable, followed by pears. Areas on the western side of the Continental Divide have microclimates that make growing stone fruit (i.e., peaches, sweet cherries, etc.) possible. Some other stone fruit (i.e., plums, apricots, and peaches) can be successfully grown in other parts of the state, but it is largely dependent on local microclimates. From MSU varietal research and through the work of the Heritage Orchard program, the following apple and pear eating (versus cooking) varieties have been identified to perform the best:

- Apples: Goodland, Zestar, Carrol, Wealthy, and Duchess of Oldenburg
- Pears: Golden Spice and Parker

After selecting a suitable rootstock and variety, make sure to start with quality stock. Ideally, you want a chance to look at the trees and select them before they are shipped in the spring. Know your options if you receive poor quality trees.

Perfect variety selection becomes unimportant if the trees are not planted and managed correctly. The most common planting mistake is planting trees too deep. The graft union needs to be exposed and approximately two to three inches above the soil. The second most common mistake is not pruning the roots on containerized trees. Root-bound trees, common in container grown trees, must have the outside roots shaved off prior to planting.

Once trees are in the ground, there are two basic but very important management considerations for fruit trees. The trees have to be irrigated, especially the first five years, until they are well-established. A dependable irrigation system is essential.

Ideally, the trees should have no other plant competition around them, as vegetation competition can be the difference between healthy and unhealthy trees. A mid-row between the tree rows can be maintained with a perennial ground cover, but within the tree row, plant competition needs to be reduced as much as possible. This can best be accomplished through mulch or herbicides. Cultivation to remove vegetation is not advised because it destroys soil structure and kills many important tree surface roots, which also increases water loss from the soil. If using herbicides, make sure to follow all label directions. Make sure the product is labeled for the fruit you are growing and pay close attention to harvest date intervals.

For more information on growing fruit trees in Montana, visit with your local Extension Agent and consult the Extension publication, *Growing Fruit Trees in Montana*. Watch for fruit-related workshop opportunities and field days in your area. ■

The Heritage Orchard Program started in 2013.

The statewide program's goals are to identify, preserve, and propagate from 100+ year old orchards across Montana. To date, the program is working with 48 orchards. It is conducting DNA testing to identify varieties and assisting landowners with pruning and tree care. There is much to learn from these old trees. The information gained will aid in building the orchards of the future. For more information about the program, visit www.mtorchards.org.



Erikson apple