FRUIT PRODUCTION

DO'S AND DON'TS FOR THE BACKYARD OR HOBBY FARMER

Brian Sebade

There are reasons why Wyoming is not the number one producer of fruit and vegetables in the nation!

Climatic and growing conditions (cold temps, dryness, wind, and shallow soils) tend to be stacked against fruit production. Below are strategies to help improve the chances of making the most of your growing season.

What Grows Around Here?

Knowing what native fruit species grow in your area provides clues as to what fruit may have the best chance of successful production. Wyoming is host to many native fruit species we commonly find in the supermarket. Plum, cherry (i.e., chokecherry), raspberry, bog blueberry, currant, and strawberry are all native fruit plants that call Wyoming home. The delicious fruit of native plants are much smaller than commercial cultivars. Native fruits are often restricted to specific growing sites within Wyoming and produce relatively low yields, with some years resulting in no fruit production.

Dealing with the Cold

That temperature limits fruit production in Wyoming is no secret. Extreme winter lows, late spring frosts, and short frost-free periods all affect fruit production. Plants have many methods for dealing with extreme cold temperatures. Many fruit tree and shrub cultivars from commercial growers are not adapted to Wyoming's cold temperatures and require long frost-free periods for production. When selecting fruit varieties, make sure they will withstand the lowest potential temperature for your area. For most of us, that means we need to select either zone 3 or 4 plants as shown on the USDA Plant Hardiness Zone Map bit.ly/hardi-zones. I recommend planting zone 3 plants so there is less risk for winter damage or die off. It is often not the week of 10 degrees below zero that kills a tree but the fluke cold snap when temperatures get to 40 below zero for several hours.

Plant and Rootstock Selection

Fruit trees, shrubs, and forbs come in many different shapes and sizes. Trees and shrubs often prove the greatest challenge for future planning and care. When selecting plants, find species that will not outgrow your ability for care. This is most meaningful when discussing large fruit trees (apple, apricot, pear, plum, and cherry). Today, most fruit trees have a particular variety of fruit that has been grafted onto a specific rootstock. The rootstock is very important; it determines the size of the mature tree, winter survival, and growth productivity.

Trees can grow to the height of a standard tree, semi-dwarf, or dwarf. With dwarf being the smallest size, these tree sizes often make the most

sense for backyards in urban areas. While dwarf sizes are great for maintenance, it is thought these rootstocks are not as hardy as a standard rootstock and often have shorter lifespans. Standard trees can be planted in limited spaces, but there can be a lot of intense pruning each season to make sure it will not outgrow its space.

Plant Care

Stay on top of pruning during the season. Resources allocated to an unwanted or damaged tree branch can lead to the potential loss of fruit production. Pruning should be completed in late winter or early spring before trees and shrubs have started to bud. Older trees can be pruned more heavily than younger trees. Keep in mind tree branches at angles greater than 45 degrees are a lot stronger than narrow-angled branches. Please refer to "Correct pruning can revitalize landcapes" at http://bit.ly/treeprune.

A common strategy is to thin fruit that grow in clusters on branches to optimize fruit growth. Thinning fruit will decrease the overall potential number of fruit produced but increase the size and quality of the remaining fruit. This practice is common with larger fruit like apples and pears. To accomplish proper thinning, look to remove immature fruit after the blossom process is complete and you can see fruit developing. Select the healthiest looking fruit and thin each fruit cluster back to groups of two or three.

Supplemental irrigation water for fruit plants is needed in most areas of the state. Knowing your soil texture is important when considering the amount and timing of water applications. Adding several inches of mulch from the base of the tree to the outer drip zone is important. The mulch helps conserve water during dry periods and also helps reduce competition from weeds, grass, and other plants for resources. Plant roots should be kept moist during the fall and during warm periods in late winter or early spring.

Preventing Sunscald

Many fruit tree types are susceptible to sunscald in winter. Sunscald damages the trunks of these trees. Sap moves within a tree during the warmer part of the day, and then cannot be released back to the roots by the time temperatures begin to freeze, ultimately damaging the cells of the tree trunk. To avoid this, use a trunk wrap or paint the entire trunk or at least the south-facing side of the trunk with an interior white latex paint. The white paint will reflect enough sunlight to keep the trunk cool to prevent sunscald.

Disease and Predator Control

Unfortunately, there are many other challenges facing fruit production besides the Wyoming climate and soils. Small and large mammals, bacterial infections, and insects all can cause damage. Maintaining a healthy fruit plant is the first step in dealing with potential damages and stresses a plant might face.

For small mammals, add ¼-inch mesh wire around the base of trees to prevent voles from girdling the bark of the tree while they search for food under the snow during winter. Be sure to check the wire each year to ensure the trunk hasn't grown so much that the wire is girdling the tree. Pocket gophers are also a pesky grazing problem. Instead of eating stems, these rodents eat the root system of trees. Poisons are often the most effective control for voles and gophers depending on the situation. Please see Caleb Carter's article "Got Voles? We have answers" in the summer 2015 Barnyards & Backyards magazine for more information.

For large animals, place taller fencing around the perimeter of orchards or small fruit locations to prevent grazing by larger mammals such as deer, elk, and moose. Please see Scott Cotton's fencing article at http://bit.ly/wildlifefence for more information.

Fire blight, scab, and cedar apple rust are common diseases that affect apple and pear trees. Proper pruning and site location can reduce these diseases, while wet climatic conditions can increase the chances of these particular diseases. Fungicides and treatments can be implemented to reduce these diseases. Note that

Ribes fruit species, currants, can be an intermediary host for white pine blister rust.

Spider mites, gall insects, slugs, and boring insects can affect fruit production. There are many chemical and cultural practices that can help control these problematic insects. A good starting place for information related to these pests is "Landscape Pests: Integrated Pest Management Strategies for Controlling the Dastardly Dozen," published by the University of Wyoming Extension.

This is a short list of potential diseases and predators. More in-depth information can be found at local UW Extension offices. Remember, a healthy plant is the first step to prevention of many diseases.

Site Selection

Help give fruit plants the best chances for success through site selection. Establish plants in areas where they are protected from the elements, including wind events. Most native Wyoming plants have developed strategies for minimizing water loss during the growing season. Many introduced fruit plants do not have specialized leaves and plant cells for dealing with these conditions. A protected location will also help keep plants insulated during colder temperatures and may help extend their potential growing season.

Man-made structures, proper location near a dwelling, downwind from a tree belt, or other natural features on a property all serve as great microclimates for fruit plants. Pay attention to when and where the wind blows, sun shines, snow piles up, and where plants seem to grow the best related to slope and aspect on your property for selecting the best fruit growing locations. Steep slopes will generally have shallow soils and won't retain water as long after watering. Trees planted on the north side of a hill will experience a colder climate than those planted on a south-facing slope.

Fruit production in Wyoming can be challenging. This information will help get you started in the right direction for successful fruit production in your backyard or acreage.

Brian 'Appleseed' Sebade *is a University of Wyoming Extension educator based in Albany County and serving southeast Wyoming. He can be reached at (307) 721-2571 or bsebade@uwyo.edu.*