



## Early Spring Care for Fruit Trees

Winter is a great time to review your home orchard's performance last summer and make plans for this year. To maximize the health of fruit trees, begin with proper pruning, then provide good care through fertilization, watering and mulching throughout the summer. Next, develop an integrated pest management plan tailored to the specific insect and disease problems affecting your trees.



## Do Some Research

The Home Fruit Production Guide, from Ohio State University, is an excellent resource to learn about the best production techniques, including pruning, fertilization, watering and mulching, for each specific fruit. Diseases and insects are also discussed individually for each type of fruit, making it easy for the home orchardist to determine the problems affecting their trees.

<http://bit.ly/homefruit>

## Pruning

Late February through March is the best time of year to prune the home orchard, just before trees begin to break bud. This minimizes the potential for cold injury and trees heal wounds fastest when pruned at this time of year. First prune trees with higher levels of winter hardiness, including apple, pear, tart cherry and plum. Save sweet cherry, peach and apricot for last.

The main purpose of fruit tree pruning is to

1. increase sunlight penetration of the tree's canopy,
2. remove dead, diseased or less productive wood and
3. shape the crown into a strong efficient structure.

Pruning increases fruit size, promotes uniform ripening, increases fruit sugar content and decreases pest problems due to better spray coverage and faster drying of the foliage after rain. Neglected trees and vigorous cultivars require heavy pruning to reestablish good tree structure and optimize production. Do not use pruning paints or wound dressings.

Refer to the Home Fruit Production Guide for specifics on the best pruning practices for each type of tree.

## What Troubles Your Fruit Trees?

Fruit growers often call Nebraska Extension asking what pesticide products should be used on their home fruit plantings and when they should be applied. Our first question for them is, "What insects and diseases are you trying to control?"



In the past, orchard pest control was often done with a pre-determined schedule of pesticide applications at specific times of year. Now, with growing concern related to 1) environmental concerns like pesticide impact on pollinators and 2) pesticide impact on human health, it makes sense to develop a customized spray schedule based on the specific insect and disease problems present in your fruit planting.

In other words, growers only need to use pesticides to control insect or diseases that are problems for their fruits and can't be control with good management techniques. The Home Fruit Production Guide outlines common pest problems for each type of fruit. Determine which problems affected your trees and target your control efforts only to those problems.

For example, if apple tree cultivars with good resistance to cedar-apple rust and apple scab, are used in the home orchard, then fungicide applications for disease control may not be necessary. Or fewer fungicide applications may provide adequate control. In this orchard, insects may be the most important pest problem.

If you'll be planting new fruit trees this spring, be sure to do your research and choose disease resistant cultivars. Taking advantage of natural disease resistance greatly reduces your work and the need for fungicide applications.

## Resources

- Fruit Tree Cultivars for Nebraska, <http://extensionpublications.unl.edu/assets/html/g1005/build/g1005.htm>
- Disease-Resistant Apple Cultivars, <https://extension2.missouri.edu/g6026>

## Use Integrated Pest Management (IPM) To Control Pest Problems

Unfortunately, options are limited when looking for cultivars with resistance to insect pests. Instead develop a integrated pest management plan using a variety of methods to reduce pest problems.

IPM protects the health of humans, pets, non-target insects and the environment by reducing the number of insecticide sprays required and the total amount of chemicals used in your planting. A good IPM program includes the following steps.

- Monitoring plants regularly for pest problems, enabling the home orchardist to control problems in early stages.
- Accurate identification of pest problems so effective control strategies are used.
- Establish damage threshold levels - the amount of damage resulting in unacceptable fruits. Lower levels of pest damage are determined acceptable and full-out chemical warfare doesn't begin because of a few egg-laying scars on your apples.
- Use a variety of control methods, including cultural, mechanical and biological, then chemical. Start with the least toxic methods providing good control.

## Early Season Pest Control



# EXTENSION

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Finally, get your home orchard off to a good start this spring. Common early season pest control tactics, which can be completed in March, include orchard sanitation and dormant oil or fungicide applications.

Sanitation - Fruit tree disease problems often overwinter on dried fruits or "mummies" that fell on the ground last fall and have remained there under the tree during the winter. This also happens with leaves from trees infected with fungal diseases; the spores overwinter on the leaves and are present to re-infect the tree the following spring as it begins to leaf out. For this reason, sanitation beneath and around your fruit trees is very important. Collect and discard or burn all debris from the tree, including leaves and fruit, before blooming begins.

Dormant Fungicide Applications - Application of copper fungicide is an effective way to control peach leaf curl and plum pockets when applied to dormant fruit trees during late winter. Bordeaux mixture, a combination of copper sulfate and lime, or fixed copper fungicides, such as tribasic copper sulfate, copper oxychloride sulfate and cupric hydroxide, can be used. Bordeaux mixture has the advantage of adhering to plants better during rainy weather, but it does stain surfaces and can cause plant damage if applied after plants have broken dormancy.

Dormant Oil Application - March is typically the month to apply dormant oil sprays to fruit and nut trees to kill overwintering pests in cracks and crevices on trunks and branches. Temperatures need to be above 40° F when applying dormant oils. Pests controlled include aphids, scales, spider mites, insect eggs and some hibernating caterpillars.

Dormant oils kill by suffocating insects and mites. They are most effective if applied as late in winter as possible, but before spring growth begins. Follow label directions when using any pesticide

### Your Suggestions are Welcome!

Is there a lawn and gardening topic you would like to learn more about? Sarah Browning is an Extension Educator with Nebraska Extension and can be contacted by phone 402 441-7180, by mail at 444 Cherrycreek Road, Lincoln, NE 68528: or by e-mail [sarah.browning@unl.edu](mailto:sarah.browning@unl.edu)



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