

Production Information

Delayed Dormant Sprays

Wow, this spring is the polar opposite of last spring, when at this time of year, we were bundled in our down coats shoveling sidewalks. Now, apricots are blooming and it's shorts and flip flops. Are you ready?

The first pest management action to perform in the next few weeks is your delayed-dormant spray. "Delayed-dormant" is when the trees are between dormancy (tightly closed buds) and partial leaf expansion. We recommend spraying at this time because

- overwintering insects (eggs, nymphs, or adults) are also coming out of dormancy, and are susceptible to treatment
- few beneficial insects are active, making the delayed-dormant spray one of the most important tools in pest management
- oils and other materials for this spray timing are relatively inexpensive

Keep in mind that dormant sprays are not required every year. If you had an aphid problem last season (they were plentiful in many locations), then apply your delayed-dormant spray this spring. If you have had very little damage from aphids, then you could consider skipping the spray. The table below shows which pests a delayed dormant spray will treat, and what materials to use.

When to Spray

The ideal time to apply a dormant spray is after the buds of fruit trees have started to swell, and up to the point where leaves have begun to emerge.

- Apples: swollen bud - 1/2" green ([bud stages](#))
- Pears: swollen bud - cluster bud ([bud stages](#))
- Peaches and Nectarines: swollen bud - pre-bloom ([bud stages](#))

What to Use

Usually horticultural oil alone is sufficient for delayed dormant sprays, particularly for backyard and hobby growers. Most oils are simply sold as "dormant oil" and the ingredients will be "98% (or higher) petroleum oil". This type of oil is suitable for sprays in the delayed-dormant time (2% rate in water) as well as sprays during the growing season (0.5-1% rate).

Commercial growers may consider mixing oil with an insecticide such as Asana, Sevin, or Esteem, depending on the target pest(s).

When applying the delayed dormant spray, make sure you thoroughly cover all bark cracks and crevices. Also, oils should be used when the air temperature is above 40 F and when there is no threat of freezing temperature for the following 36 hours. Applying between 50 and 70 F on clear days is ideal.

What you are Treating

| Host | Pest | Material |
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| Aphids | | |
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| All fruits | Aphids: eggs are hard to see, but are usually at buds or crotches of small twigs; usually black in color. | 2% oil OR 2% oil + Asana or similar |

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Blister mites



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| apple, pear | Blister mites: these mites cause tiny galls on the leaves of apple or pear. They overwinter within bud scales and start emerging and becoming active at bud swell. They only need this one treatment, or if severe, may need a follow up in the fall. | 2% oil OR 2% oil + Sevin |
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Brown mites



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| All fruits | Brown mites: brown mites are related to European red mites, and overwinter as eggs in protected sites on trees. Because of the past three cool springs, we are starting to see these mites more often in commercial orchards and more rarely, in backyard trees. Note that spider mites are not controlled by this spray. They overwinter in protected areas in the groundcover. | 2% oil |
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Peach twig borer



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| peach, nectarine, apricot | Peach twig borer: this pest overwinters as a young larva in a protected area in the tree canopy. This treatment targets the larvae as they emerge to find food; this is a very important spray for managing peach twig borer. | 2% oil + spinosad (Success), Asana or other |
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San Jose scale



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| apple | San Jose scale: this pest can build in numbers quickly if not treated. It is rare in commercial orchards, but can be common in older, unmanaged apples. This treatment is only one step in managing San Jose scale because their armor protects the older scales from the spray. The crawlers will also need to be treated after they hatch, usually in mid June. | 2% oil + Esteem or other |
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Soft scales



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| All fruits | Soft scales: horticultural oil is very effective on soft scales, particularly at delayed-dormant timing when temperatures have started to increase. | 2% oil OR 2% oil + Asana or similar |
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Shothole



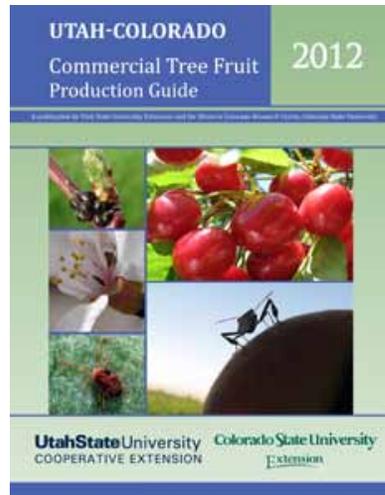
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| peach, nectarine, apricot, plum | Shothole (coryneum blight) of peaches, cherries: this is the disease that causes scabby lesions on unripe fruit, or sunken lesions on ripe fruit. The fungus overwinters in buds (thereby killing them), and spreads in spring. This treatment is the first step in managing coryneum blight. | chlorothalonil (Bravo) |
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Fire blight



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| apple, pear | Fire blight: fire blight overwinters in cankers in the tree, which start oozing in the spring. Copper can slow the spread of the bacteria by preventing colonization (rather than killing). Spray at silver tip stage and when temperatures are above 45°. Do not apply copper after 1/4-inch green leaf stage or when drying conditions are slow, as severe injury can occur. Fixed coppers such as Kocide and C-O-C-S can be tank mixed with early season oil sprays, but do not combine copper sulfate alone with dormant oil. | Bordeaux mixture, copper hydroxide, copper oxychloride, copper sulfate |
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Other News



The 2012 edition of the Utah-Colorado Commercial Tree Fruit Production Guide is available for distribution. New information includes a chapter on weeds and thinning, as well as information on mating disruption and new products added to the spray tables.

If you are a commercial grower in the state and have not received a copy, please notify

Marion Murray

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