UtahState

Landscape IPM Advisory



Weekly Pest Update for Woody Ornamentals, Utah State University Extension, April 3, 2008



What's In Bloom (Salt Lake City area)

There's not much blooming now! The landscape is quite different this year than it was last year. Last year at this time, forsythia, cherries, serviceberries, and redbuds were in full bloom. See pages 2-4 for some climate and degree day information.

Silver maple: full bloom Red maple: begin bloom

Insect/Disease Information

Dormant Oil Sprays

Dormant oil sprays work on a variety of overwintering insect adults and eggs such as scale, aphid, and some spider mites. They are a great tool in an integrated pest management program because they are relatively safe to mammals and the environment and have a minimal effect on natural enemies. Yes, oil prices are currently high, but you will still be better off battling these pests while they are "quiet" now than during an infestation later on.

The term "dormant oil" applies to the timing of application rather that the type of oil. Other terms are "horticulture oil," "superior oil," "mineral oil," "spray oil," etc. They are all derived from highly saturated paraffinic petroleum and refined to certain specifications. Most can be used during the dormant and summer seasons, but some are intended only for dormant use.

Read the label when using petroleum-based oil sprays. Oils must be mixed with water and an emulsifier before spraying. Those that are labeled as "miscible" or "emulsive" already have an emulsifier added for easier mixing. Do not spray when temperatures are below 40° F, and when there is a threat of frost for the next 36 hours. When applied properly, there is little risk of plant damage.

Oils work by suffocating the adult insect, nymph, or egg, and must be present long enough to be effective. The heavier the oil, the better it works. Since plants are not transpiring or actively growing during the dormant season, it is OK to use the higher concentration recommended on the label.

Examples of some insects treated with dormant oil:

Spruce Spider Mite

Spruce spider mites are a cool season mite, active in spring

and fall. They occur on juniper, spruce, arborvitae, and some pine. They overwinter as red-colored eggs near the bases of needles, hatch at this time of year. To look for them, shake a few branches over a white cardboard paper and look for the dislodged nymphs. They will be pale yellow in color. You can smear them across the paper, or use a hand lens to confirm. If you choose to use oil on Colorado blue spruce, keep in mind that the oil will remove the bluish bloom from needles. It may take up to 2 seasons to return.

Scale

Scale insects are small and immobile most of their lives. Check your woody plants before new growth begins for a scale infestation. They will appear as small round "bumps" on limbs and



twigs. Coloring varies, but can include white, tan and brown. In particular, check lilac (oystershell scale), crabapple (San Jose scale), ash and linden (lecanium scale) elm (European elm scale), arborvitae and yew (fletcher scale, shown above), and pine (pine needle scale). Scale population can increase

dramatically during the growing season if not controlled. Note that the hard scales (San Jose, pine needle, etc.) will need additional treatments timed at the crawler phase, as will heavy infestations of soft scales.

Contact:

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click here for archived advisories

Degree Days and Pest Monitoring Timeline

Upcoming Monitoring/Insect Activity

Pest	Degree Day Timing (base 50)	Indicator Plant
White pine weevil	Adults active at 7-58 DD	Silver maple first bloom
Spruce spider mite	Egg hatch at 7-121 DD	Silver and red maple bloom
Smaller European elm bark beetle	Adults emerge at 7-120 DD	Silver and red maple bloom
European pine shoot moth	Larvae move to new shoots at 50-220 DD	Red maple first bloom
Honeylocust plant bug	Nymphs emerge starting at 58 DD	Red maple bloom
Western tent caterpillar	Eggs begin hatching at 100 DD	Forsythia full bloom

Current Degree Days (base 50)

March I - Wednesday, April 3

County	Location	GDD (50)		
Box Elder	Perry	19		
Cache	North Logan	2		
	River Heights	4		
	Smithfield	3		
Carbon	Price	19		
Davis	Kaysville	32		
Grand	Castle Valley	73		
Salt Lake	SLC	31		
	West Valley City	45		
Tooele	Erda	33		
	Grantsville			
	Tooele	29		
Utah	Alpine	25		
	Genola	44		
	Lincoln Point			
	Orem	44		
	Payson	40		
	Provo	44		
	Santaquin	32		
	West Mountain	41		
Weber	Pleasant View	24		

Production Information

Reducing Fruit Production on Ornamental Plants

Seeds are important for plants to reproduce, but in some instances, the seeds, or fruit in which they occur, can be a nuisance. Some are messy (maple), or smelly (ginkgo), or hazardous (slippery fruit or large, hard nutlets). Foliar sprays can eliminate or reduce seed set, but they are not effective if not properly applied.

To prevent fruit set, chemical thinners must be applied during flowering, usually from bud to full bloom stage. Spraying before or after will not affect fruit set. The sprays work best between 60 and 95°F. Read the label carefully for concentration, as too little can increase fruit set and too much can be phytotoxic. In addition, use chemical thinners on healthy plants only. Plants under stress from environmental or biotic factors may experience defoliation after treatment.

Spraying does not eliminate 100% of the fruit, but will substantially reduce fruit or seed set. Florel Fruit Eliminator (ethephon) is a commonly used product that works on a variety of ornamental plants.

Keep in mind that removal of fruit with chemicals will be a yearly expense and plant replacement may be more economical in the long run. Alternatives are cultivars that retain their fruit until they dry, or that are sterile, or male (for dioecous plants).

Production Information

Weather Information

USDA produces a "drought monitor" that is updated daily at: http://drought.unl.edu/dm/DM_state.htm?UT,W. The *current* data shown below reveals that 50% of the state is not in a drought situation (the white portion), and 15% of the state is in a "severe drought" situation (the darker orange). Of course, these numbers will change over time, so it may be interesting to see how we stand later this summer. But no matter where you are located in the state, continue to use water wisely in your landscape.

	Drought Conditions (Persont Aroo,					
	None	00-D4	D1-D4	D2-D4	08-04	D4
Current	50.3	49.7	27.3	15.1	0.0	0.0
Lest Week 3/25/203 mee!	44.5	55.5	24.2	16.1	0.0	0.0
5 Monthe Ago 01/09/2003 map;	4.2	95.8	64.9	36.3	0.0	0.0
Start of Colencer Year 01/01/2003 meet	4.2	95.8	59.1	56.4	0.0	0.0
Start of Water Yest (202/2007 map)	2.5	97.5	91.6	59.4	0.0	0 .0
One Year Ago 1939/2007 map	0.0	100.0	100.0	1.4	0.0	0.0

D2 Dr. ag, ht - Severe



The graphs below and on the next page show precipitation and this past winter's temperatures for Salt Lake City. December's precipitation was 300% above normal but all the other months were below normal. We had a wonderful ski season, but all that snow still won't keep us out of a drought. It did lessen the impact of winter injury on broadleaved evergreen plants. Temperatures were slightly lower than normal, but probably not low enough to affect overwintering insect populations. The bad news: climatologists predict a hotter than normal summer.



continued on next page

Production Information, continued from previous page



Soil Testing

Now is a good time to have your soil tested for nutrient deficiencies. If fertilizers or other amendments are needed, you may not know unless you have a soil analysis.

The Utah Analytical Lab at USU Logan, UT will analyze a wide variety of soil elements. For \$25, you can get the full analysis, or you can pick and choose different chemical parameters. The soil test determines fertility problems, and for an additional charge, physical parameters. It does not provide information on soil borne diseases or insects, or chemical contaminants or damage.

You will need to submit a total of two cups of soil. The soil must be representative of your entire landscape in question. Collecting soil from one location may give you results that are not useful for the entire site. Begin by taking random samples from 8-10 locations that represent the entire site. From each location, collect soil from the surface down to 12 inches. Mix all samples together thoroughly in a clean container and select about 2 cups for the final submission sample.

Mail or deliver the sample to the USU Analytical Lab as soon as possible after collection. All forms, pricing, and contact information can be found on their Web site: http://www.usual. usu.edu/index.html.

Precautionary Statement: All pesticides have benefits and risks, however following the label will maximize the benefits and reduce risks. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use.

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