

Horticulture 2008 Newsletter No. 15 April 16, 2008

UPCOMING EVENTS

The Friends of the KSU Gardens Spring Conservatory Plant Sale & Annual Friends Day

Saturday May 3, 2008

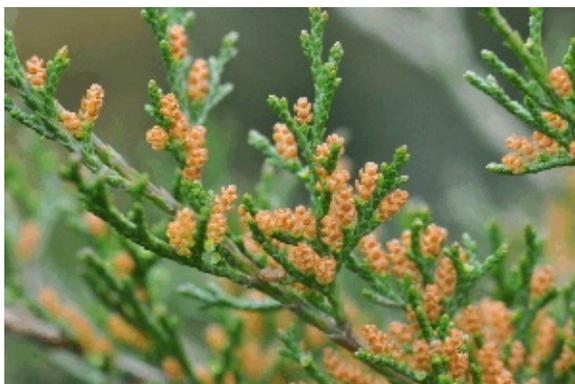
9 am - Noon at the KSU Gardens, 1500 Denison Ave.

Tropicals, Succulents, Cacti, & Bromeliads

Proceeds from the sale support the initiatives of the Friends of the KSU Gardens. The Conservatory must be cleared of all plant material for refurbishment.

ORNAMENTALS

Brown Coloration on Junipers



Certain eastern redcedar and various other junipers are showing a brownish cast when viewed from a distance. This may be the male flowers. Male flowers are on the tips of the leaves and look somewhat like a cross between a miniature hand grenade and a pinecone. Shaking the branches on dry days will often result in a cloud of pollen being released.

Most junipers are dioecious, meaning they have both male and female plants. About half the junipers (the males) will have this coloration. The female flowers are much less obvious. If you have clients who are concerned about this brown coloration, have them check the plants to ensure the male flowers are the cause. If they are, assure them that this is normal and will fade with time. (WU)

Cedar-Apple Rust

Most people consider daffodils and chirping birds as signs of spring, but some plant diseases are also seasonal signs. Cedar apple rust is one of those diseases. The pathogen (a fungus) spends part of its life cycle on a juniper/cedar tree, and the other part of its life cycle on apples,



crabapples, hawthorns, or quince. To simplify, we'll just call them "apple hosts."

In the past week or so the rust galls on junipers have started to become active in Manhattan. Orange "horns" are starting to poke out from the brown, brain-like galls. There is a similar disease called cedar-quince rust that forms globs of orange goo on junipers.

Those jelly-like orange masses on the junipers produce spores that infect the apple hosts. Once infection occurs, lesions on apple leaves develop in 1 to 3 weeks. Eventually, fungal spores are produced in these lesions, and the spores are spread by wind and rain back to junipers starting in about July. Without both hosts the fungus can't complete its life cycle.

The disease looks dramatic on junipers, but it does not cause any harm. The rusts can cause problems in the apple host. If infection is severe, many leaves drop off early and the tree is weakened due to reduced photosynthesis. However, if your tree only gets a small amount of rust each year it probably won't be an issue for long-term tree health.

For new plantings consider planting a rust-resistant variety and you won't have to worry about this disease. For any apple tree, proper pruning will allow air movement through the canopy, and this reduces the leaf wetness that promotes disease. Maintaining overall tree health will also help prevent the disease.

Homeowners with a bad history of this disease (severe defoliation) might consider preventative fungicide sprays on the apple hosts when leaves are out and the orange galls are active. For best control, applications should continue through May or as long as the orange galls are active.

Products with the active ingredients myclobutanil or propiconazole are examples of materials labeled for cedar apple rust management in flowering crabapples and non-fruiting apples. Some myclobutanil products are labeled for fruiting apples. However, in all cases, make sure you check the label carefully. For example, the myclobutanil product Immunox Plus is labeled for rust on flowering crabapples, but not for fruiting/eating apples, as it contains an insecticide along with the myclobutanil ingredient. In contrast, Immunox Multi-Purpose Fungicide is labeled for fruiting apples. If your local store does not carry products for fruit trees you might be able to order online (ex: <http://rosecare1.stores.yahoo.net/products-diseases.html>). (MK)



TURFGRASS

Dandelion Control in Buffalograss

Dandelions and other broadleaf weeds are especially noticeable in buffalograss lawns during early to mid-spring because the green weeds stand out against

dormant buffalograss. Though it is virtually impossible to control henbit and chickweed at this late date, dandelion is not quite as tough.

So, just go out and hit the dandelions with a combination product such as Trimec, Weed-B-Gon or Weed-Out, right? WRONG! When buffalograss is greening up, as it is right now, it is more sensitive to broadleaf herbicides. Herbicides containing dicamba cause the most damage. (The three-way products mentioned above are usually a combination of 2,4-D, MCPP, and dicamba.) But you can expect some temporary yellowish discoloration from just about any broadleaf herbicide available. The key word is temporary – the buffalograss will come out of the discoloration, or burning, in 2 to 3 weeks if the herbicides are used at the proper rates.

The best choice for homeowners is 2,4-D-amine (avoid ester formulations) used at the lower label rate. Once buffalograss fully greens up, it is more tolerant of herbicides, including the three-way products. However, it is not unusual to see some temporary discoloration, even in mid-summer.

That said, it is still best to control weeds in buffalograss during October or early November. At that time, the buffalograss is dormant and tolerant of herbicides and you get excellent control of dandelions, henbit, chickweed and most other broadleaf weeds. If you need to control dandelion in the spring, the best time is when the dandelions are in full bloom. (WU)

FRUIT



Fruit Tree Sprays and Rain

A spreader-sticker should be used in fruit tree sprays to improve the distribution and retention of the fungicides and insecticides on the fruit and leaves. However, even with a spreader-sticker, a rain can reduce the length of time the materials are effective. Less than one inch of rain since the last spray will not significantly affect residues. One to two inches of rain will reduce the residue by one half. Reduce the number of days until the next spray by one half. More than two inches of rain since the last spray

will remove most of the spray residue. Re-spray as soon as possible. Details on when and what to spray are available in the K-State Research and Extension publication, "Fruit Pest Control for Home Gardens" at <http://www.oznet.ksu.edu/library/hort2/c592.pdf> (WU)

Fruit Bud Damage from Cold Temperatures

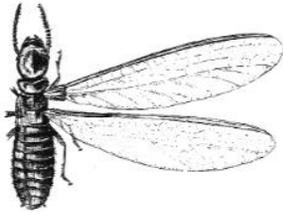
Fruit growers often wonder at what temperature fruit buds are killed. The following will give you some guidelines, but remember that the actual damage is going to be influenced by the weather before the temperature drops. An extended warm spell before the cold snap may result in more damage due to a loss in cold hardiness.



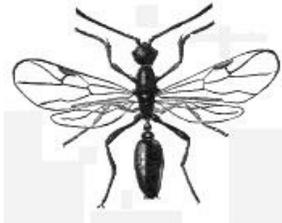
Fruit	Stage	10% Kill (°F)	90% Kill (°F)	Fruit	Stage	10% Kill (°F)	90% Kill (°F)
Apple	Silver tip	15	2	Tart cherry	Bud burst	17	5
	Green tip	18	10		Green tip	25	14
	Half-inch green	23	15		Tight cluster	26	17
	Tight cluster	27	21		Swollen bud	27	24
	Pink	28	25		Bloom	28	25
	Bloom	28	25		Petal fall	28	25
	Petal fall	28	25		Fruit set	28	25
	Fruit set	28	25				
Pear	Swollen bud	15	1	Plum & Prune	Swollen bud	14	
	Bud burst	20	7		Bud burst	18	
	Green cluster	26	15		Green cluster	26	
	White bud	26	22		White bud	26	
	Bloom	28	23		Bloom	27	
	Petal fall	28	24		Petal fall	28	
	Fruit set	28	24		Fruit set	28	
Peach	Swollen bud	18	2	Apricot	First white	24	
	Half-inch green	23	5		First bloom	25	
	Pink	25	18		Full bloom	27	
	Bloom	27	24		In the shuck	27	
	Petal fall	28	25		Green fruit	28	
	Fruit set	28	25				

PESTS

Termites or Ants



Termite



Ant

Both termites and ants are able to swarm and may have wings during part of their lives. Since these insects are close to the same size, people often misidentify flying ants as termites. Because flying ants do not attack dry wooden structures like termites, it is helpful to be able to tell the difference.

Fortunately, there are several differences that can easily distinguish between the two. For example, ants have a thin waist; the waist of a termite is thick. Also, ants' antennae are elbowed, while termites' are straight. Thirdly, termites have two pairs of wings that are of equal length. Ants also have two pairs of wings, but theirs are of unequal length. Homeowners who find signs of termite activity should shop for a reputable pest control firm. (WU)

Ants in the Home

Ant home invasions typically start after the weather warms. A few "scout" ants search for food and water. When they find what they are looking for, they lay down a chemical trail to show others the way. If the homeowner can trace the ants back to a nest, control is simple. Spraying the nest with a labeled insecticide will take care of the problem.

Unfortunately, nests are often outside the home and can be extremely difficult to find. Also, ants are so small that finding and caulking all potential entry points is usually not practical.

Treating the trails is another tactic that may give temporary relief but normally does not work over the long term; the ants simply find another way.



In the end, we are left with two strategies: sanitation and baits. Eliminating crumbs, grease, scraps or other food will discourage ant invasions. Ants consume the most easily accessible food. That's why baits are effective. By using bait the ants like, we trick the insects into taking the insecticide back to the nest where it is fed to the queen and other members of the colony. Over time, the nest will be destroyed.

There are a number of commercially available homeowner formulations that contain both the bait and insecticide and come pre-packaged in a child-resistant station. If ant activity increases around the newly set bait station, don't worry. The insecticides are meant to be slow acting so the product can be transported back to the colony before the worker dies. Unfortunately, not all ants are attracted to the same baits. Also, the food preference of ants may change over time. If one bait product isn't attractive, try another. (WU)

Ash/Lilac Borer



If you have had problems with the canes or stems of lilac and privet suddenly wilting, or ash trees that show borer holes in the trunk and larger branches, the ash/lilac borer may be to blame. This insect causes the base of infested lilac stems to swell and the bark to separate from the wood. A fine sawdust-like material is present around holes in the canes. Ash and mountain ash also are affected. The borer attacks the trunk, which may cause bark to swell and crack if there are repeated infestations.

Ash/lilac borers overwinter as larvae in infested trees and shrubs. Moths generally begin to emerge in mid to late April. Emergence peaks in May, dwindles by mid to late June and ends by the first week of July. The moth has clear wings and resembles a wasp. There is one generation per year.

Public and commercially managed properties often use pheromone traps to determine the presence of adults. Spray treatments are started seven to 10 days after the capture of the first moths. Sprays can also be timed using phenology, the practice of timing one event by another. The first spray for ash/lilac borer should be applied when the Vanhoutte spirea is in full to late bloom, probably by about May 1 this year (if it blooms). A second spray should be applied four weeks after the first. Thoroughly treat the trunk and larger limbs of ash or the lower portion of the stems of lilac or privet. Heavily infested ash should be cut and burned during the fall and winter.

Infested stems of lilac or privet should be removed as well. Permethrin (Hi-Yield Garden, Pet, and Livestock Insect Control) is labeled for control. Though there are a number of other homeowner products

that contain permethrin, the product listed above is the only one I've found that specifically lists the ash/lilac borer on the label. (WU)

Scale Insects

Scales are a group of insects that are diverse in their habits, life cycles and preferred hosts. However, several broad statements apply to most species. (1) Due to their small size coupled with their blending in with their background, scales are not readily detectible. (2) Predators and parasites typically keep scale populations in check. (3) Suppression of predators and parasites through the indiscriminate and repeated use of insecticides allows populations to explode.

If infestations exist, treatment applications are warranted. Horticultural oils and soaps are effective against all developmental stages of scale insects (egg, crawler, nymph, adult). Thorough coverage is required. While current-season foliage is still in the bud, treatment coverage is easier to attain. Follow label instructions regarding rates/dosages, temperature restrictions, and host-plant susceptibility/phytotoxicity statements.

Applications of organophosphate, carbamate and pyrethroid insecticides must be timed with crawler activities. Close inspection with a hand lens is required to determine crawler presence/activity. Crawlers of some scale species may never be exposed, but remain hidden beneath the parent scale. Other crawlers emerge from their protective covers.

Drench treatments with systemic insecticides offer additional help for “soft” scales. In the spring when host plant uptake and translocation are most active, phloem elements should be rich with systemic protectants in newly formed foliage. Consult product labels for mixing and application instructions. (BB)

Growing Degree Days: A Tool for Helping to Determine the Onset of Insect and Mite Pest Activities

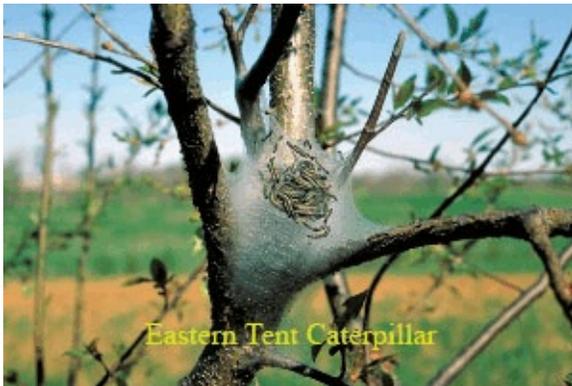
Growing degree day (GDD) accumulations involve the amount of accumulated heat required for insects and their host plants to flourish. GDDs are used to forecast the onset of seasonal activities for certain events. For an explanation of GDDs and how they are calculated, see the March 7, 2007, issue of the Horticulture 2007 Newsletter, which can be found at

<http://www.hfir.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=1826>

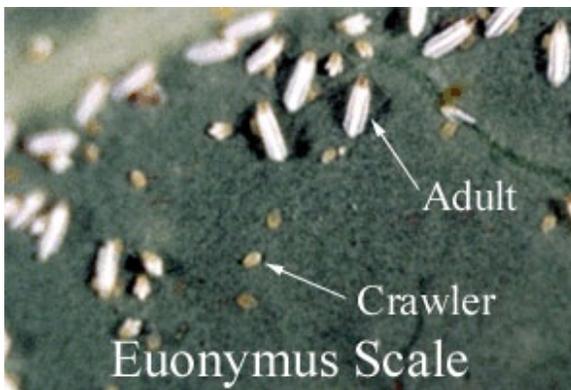
Our interest in GDDs is related to several common Kansas insect pests. For 2008, we will record GDDs for the same 21 locations as we did in 2007.

Activities for five early-season pests — eastern tent caterpillar and European pine sawfly, and first generations of European elm scale, juniper webworm and spruce spider mite — are anticipated to begin

between 100 and 200 accumulated GDDs according to guidelines listed in Don Orton's book, Coincide. These guidelines are approximations. For instance, in 2007 at a Manhattan site, eastern tent caterpillar and European pine sawfly egg hatch occurred at 26 and 78.5 accumulated GDDs, respectively. For March 1 through April 10 accumulated GDDs are lagging well behind those for 2007. The 2008 values for each site are followed by the 2007 values in parentheses: Baxter Springs – 126.5 (336.5); Clyde – 28.5 (186.5); El Dorado – 56 (247); Elkhart – 51.5 (164.5); Ellsworth – 35.5 (226); Emporia – 41 (251); Garden City – 33.5 (164); Hays – 21 (156); Hiawatha – 11.5 (203); Independence – 109 (331); Kansas City – 30.5 (225.5); Lawrence – 21 (227); Manhattan – 17 (219); Newton – 33.5 (227); Olathe – 34.5 (221); Pittsburg – 126.5 (333.5); St. Francis – 15 (86); Salina – 29 (226); South Hutchinson – 31 (241); Topeka – 34.5 (247); and Wichita – 66.5 (248).



Eastern Tent Caterpillar (ETC) are almost certainly feeding in areas such as Baxter Springs, El Dorado, Garden City, Independence and Pittsburg. In fact, no area in Kansas is without current activity. Given their small size, only close inspections can confirm this. Newly emerged larvae often remain on egg masses where they feed on remnants of egg masses. They soon leave in search of swelling buds and newly formed leaves. A silken thread/trail enables them to return to a “tent” constructed in the crotch of a branch. Detection requires close scrutiny and patience. Once located, tents can easily be destroyed or removed.



European pine sawfly larvae – The only areas where hatch may already have occurred are in the southeastern corner of Kansas. The rest of Kansas has yet to accumulate sufficient GDDs. (BB)

Contributors:

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To view Upcoming Events: <http://tinyurl.com/fswqe>

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