

Down the Garden Path



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Plant & Pest Diagnostic Laboratory

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GARDEN

Preparing the Garden for Winter

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Many of us gardeners have mixed feelings about this time of year; sad to see another garden year draw to a close, but at the same time relieved to get a break from the chores of weeding, watering, pruning, and more weeding. But before you hibernate, there are still a few more chores to take care of outdoors.

Winter mulch isn't necessary for all garden plants but it can mean survival for some less hardy plants. Winter mulch has a different purpose than summer mulch. The main benefits of winter cover are to protect against wide temperature fluctuations in the soil and to prevent extreme cold temperatures from harming plants.

Soil tends to heave when subjected to wide temperature changes, pushing plant roots up out of the ground. Heaving is most harmful to relatively shallow-rooted plants, such as strawberries and newly planted specimens of any kind that have not yet had a chance to develop solid footing. Winter mulch also prevents extreme cold damage to above ground plant parts.

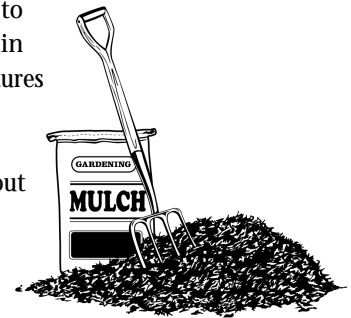
In most cases, two to four inches of mulch, such as straw, pine needles, hay, or bark chips, give adequate protection. For some plants, such as roses, more elaborate protection is needed.

Timing is critical when applying winter mulch. It's best to wait until after temperatures are consistently below freezing to apply the mulch. Applying too early can smother the plant and encourage disease development.

Winterizing your landscape plants is just as important as winterizing your car. Those bright, sunny days of winter may be a welcome sight to us humans, but they can spell trouble for some landscape plants. Direct sunshine on young thin-barked trees warms the bark considerably. But when the sun goes down, air temperatures drop rapidly, and that can result in the bark splitting. Shading young, thin-barked trees such as maples and fruit trees on the south and west sides will help prevent bark splits from temperature extremes. Wrapping the trunks with commercial tree wrap provides some protection. Again, timing is important. Wait until plants are completely dormant and temperatures are consistently cold before applying the wrap. In Indiana, that's usually sometime between Thanksgiving and New Years.

Then its equally important to remove that wrap in spring, before temperatures get too warm. Bark can overheat under the wrap if left on through spring and summer. So in Indiana, remove tree wrap by early March.

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Other types of winter injury include severe drying, breakage from heavy snow and ice, and animal feeding damage.

All plants, but especially evergreens, are susceptible to drying out overwinter. The above ground parts such as twigs and evergreen leaves are very much alive and are continuously losing water through a process called transpiration. Once the ground is frozen, the plant's roots are not able to take up water to replace that which is lost through the tops. The result is drying leaves, buds and twigs. Sunny, windy conditions cause water to be lost from the tops more rapidly, further aggravating the situation. Broad-leaved evergreens are particularly susceptible since they have a greater leaf surface to lose water from.

Making sure the plants have a sufficient supply of soil moisture before the ground freezes will help create healthier specimens to fight the winter battle. This shouldn't be a problem this year, with most areas receiving plentiful if not excessive rain in recent weeks. In drier fall seasons, it's important to water thoroughly every 7-10 days if fall rains are not sufficient.

Shading susceptible plants from winter sun and wind can also be helpful. Burlap can be fastened to stakes or a section of snow fencing should be adequate. Plant highly susceptible plants such as rhododendrons on the north side of the house or a hedge to avoid strong winter sun.

Multi-stemmed shrubs seem to be particularly prone to damage from heavy snow and ice loads. To prevent damage from heavy loads, support multi-stemmed plants by bundling the stems together using burlap, canvas or chicken wire. Simply binding stems together with cord will do in a pinch. Be sure to carefully remove heavy snow as soon as possible, but don't try to remove ice. More damage to the bark will probably occur than if the ice is allowed to melt on its own.

By the time you've taken care of all these needs, you'll have earned that trip to the Bahamas! ☺



HOME

Millipedes

Tim Gibb, Extension Entomologist

Millipedes are commonly found during the spring and fall of year as they enter homes from the outside. Millipedes have two pairs of short legs on each body segment. The ones that commonly invade homes are usually 1/2 to 1 1/2 inches long, gray or brown, and curl up when disturbed. They can live in many different habitats where moisture, humidity and organic matter are high, such as mulched flower beds.

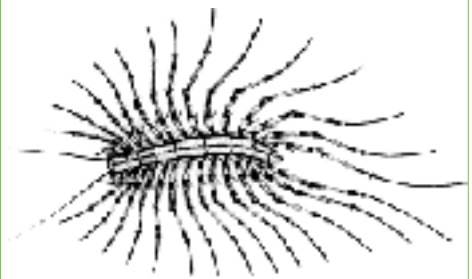
Long term control depends on changing their habitat and 'sealing' (caulking cracks, fixing windows, adjusting doors, etc.) them out of the home. Short term control may be achieved by using chemical applications that are labeled for use around the perimeter of the home to control nuisance invaders. ☺

House Centipedes

Tim Gibb, Extension Entomologist

House centipedes, *Scutigera coleoptrata*, are not uncommonly found in homes. These critters are unique in that they have much longer legs than most centipedes that we are used to seeing. As a result, it can run much more quickly. It is often found in older homes where it feeds on flies, spiders and other arthropods that it might find there. Rest assured these centipedes DO NOT harm people, nor do they do any damage to stored foods or household furnishings. Regardless of their benefits, few homeowners enjoy sharing their living quarters with these little critters.

Chemicals are not recommended for control. However, cleaning up clutter reduces their hiding places and vacuuming them up along with any other insects that they rely on for food will help in long term control. We have found that using a series of well placed 'sticky glue-traps' (available at many hardware and discount stores) is a good control method as well. Remember that house centipedes often come out at night and travel next to base-boards while they search for their prey. Placing a trap on the floor in the very corner of the room is the best technique. This will catch the majority of the house centipedes in your home. ☺



house centipede

THE GRAPE VINE

White Strands Floating in the Air

Lee Townsend, University of Kentucky
Source: Kentucky Pest News, 10/15/ 2001

There have been reports of floating ropes of a white waxy material throughout Indiana this year. These are likely woolly aphids that tend to drift in the fall in wooded areas.

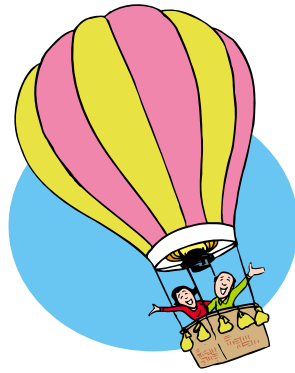
This insect is common on silver maple and alder. These sap feeders produce large amounts of honey dew. This clear sticky substance soon covers the foliage and branches, as well as cars and buildings underneath or adjacent to the infested tree. Often foliage becomes black from the sooty mold that grows on the honeydew. Heavy infestations may result in the ground being littered with the white, waxy threads under silver maple.

Throughout early summer, look for white, wool-like waxy filaments on branches and stems of host trees along with conspicuous curled leaves. The presence of honeydew, ants feeding on honeydew, or development of sooty mold are commonly associated with aphid infestations.

The insect overwinters on maple bark in the egg stage or on alder in tightly-clustered, wool-covered aphid colonies. Newly-emerged aphids settle on the midvein of new maple leaves. These aphids reproduce asexually, producing very large colonies. The winged generation that develops flies to alder in July. Several generations may develop on alder, accompanied by production of large amounts of white waxy material. Some of the migrants fly back to the trunk and branches of maples, where they mate and produce eggs, one per aphid. Others remain on the alder in the adult stage.

The insect is usually of little significance, although the amount of white waxy material that accumulates may be troublesome and some of the infested leaves drop prematurely. The associated honeydew and sooty mold may also be annoying.

Ballooning of arthropods also can



produce "floaters" in the air. "Ballooning" is a means of aerial dispersal that can be used by several spider species. These floating silk strands (often 2 feet or greater in length), sometimes called "gossamers" are an ethereal sight on a sunny fall afternoon but they can cause concern at a time when anything out of the ordinary is seen in the air.

Ballooning spiders will move to the tops of vegetation or other high spots, stand on their "tiptoes", and release silk from the spinnerets at the end of their abdomen. When long enough, the silk will be captured by a breeze and the spider will be lifted into the air for a flight that can reach several hundred feet in the air and carry the 8-legged aeronaut several miles. Large numbers of spiders can be afloat at the same time, filling the air with silken strands that waft and twist gently in the breeze. They can catch on tree limbs, fences, or any other objects.

Ballooning activity occurs on warm days following cold nights. This sudden rise in temperature creates updrafts that provide ideal conditions for lift-off.

Several families of spiders that are common in Indiana are known to use silk to disperse. Some of the more common groups are wolf spiders, jumping spiders, and crab spiders. This mode of transport can be used by young spiderlings or adult males and females. It may be possible to find the spider on the silk. ☺

YARD

Turf 101: Why does a November application of fertilizer work?

Zac Reicher, Turfgrass Extension Specialist

Nitrogen stimulates increased photosynthesis and the extra energy derived from this goes directly into growth, respiration to maintain the plant (similar to humans), or into storage. In early November, the temperature is still adequate for photosynthesis, but cool enough to minimize respiration demands and too cold for significant growth. Therefore, most of the extra energy derived from a November application of nitrogen is stored by the plant. Next spring, these storage products are used in green-up of the plant and more importantly, for root growth.

According to some of our earlier research, it is important for the plant to take up the nitrogen quickly in the fall and store the energy for maximum root growth next spring with a minimum of shoot growth. Though one might think that nitrogen applied early next in spring would do the equivalent as November-applied nitrogen, just the opposite occurs and shoot growth is stimulated dramatically with early spring-applied nitrogen. A spring application of nitrogen will never compensate for a missed application in November. ☺

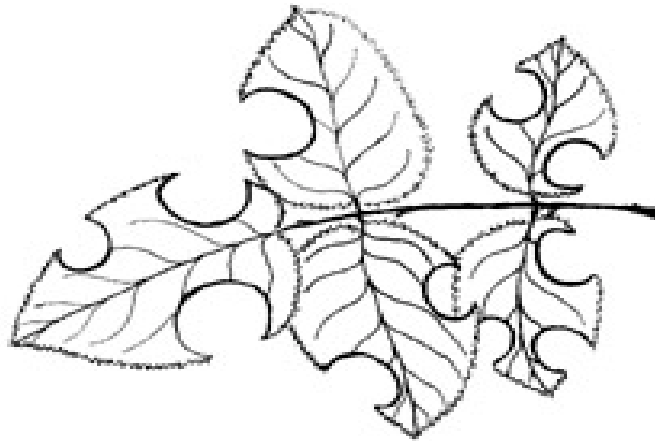


OVER THE BACK FENCE



Q: Something is eating my roses! Nearly perfect circles are missing from the edges of the leaves, but the flowers look fine.

A: The symptom you are witnessing is most likely the work of leaf cutter bees. These solitary bees use the leaf pieces to make a small nest for their young. They will line holes in dead wood with the leaf pieces. You may also find them under rocks and other secluded spots. Their nests are not large enough to cause concern. These bees are excellent pollinators and are often used in places the traditional honeybee cannot flourish. ☺



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