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HOME GROWN FACTS

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A Gardener's Calendar for Pest and Nutrient Management

The best landscapes reflect a partnership with nature. Lawns and gardens define a home for us, offer sanctuary to plants, birds, insects and other living things, and are part of a larger community and environment including waterways, parks and forests.

IPM (Integrated Pest Management) is a way of making thoughtful decisions using scientific knowledge, experience, signs of pest problems and plant symptoms to minimize unwelcome insect, disease, weed and other pest intruders—and a way to avoid unnecessary pesticide applications.

Judicious choices in planning and maintaining the landscape include pest-resistant plants and proper cultural practices for planting, pruning and fertilization. Careful observations of established plants are key to detecting problems early, making appropriate diagnoses and providing proper 'therapy' where necessary.

A few problems can threaten the life of a plant and are particularly important to learn to recognize early in order to take prompt action, such as hemlock woolly adelgid on hemlock and Dutch elm disease on American, Camperdown and other elms.

As always, when using any pesticide, including insecticidal soap, BT, horticultural oil or others, use the right material for the particular problem at the proper time. Avoid overdosing, spraying during windy periods and contaminating waterways. Wear proper clothing and follow label directions.

Become a garden detective and learn what plants say through the language of the landscape, starting with the following IPM guide to timely plant health care techniques through the horticultural year.

January
Inspect stored bulbs, tubers and corms for rot or infestation. Discard those showing signs of decay or insect damage. Check houseplants brought in for winter: inspect under leaves for infestations of whitefly and spider mites; check between leaves and stems for white, cottony mealybugs, and look under leaves and on stems for scale insects. Apply insecticidal soap or other material, crush or brush off as appropriate.

Check for tan gypsy moth egg masses on tree trunks and branches; scrape or brush off and destroy. Remove and destroy infested foliage on arborvitae and juniper to control leafminer. Look for browned foliage that is hollowed out to detect the problem. To control bagworm on shrubs and trees, look for the small stick-covered 'bags' and remove by hand.

Select pest-resistant cultivars or species where possible when planning the year's garden. Choose varieties appropriate to the site. Catalogs often list plants with pest resistance or check with your local Cornell Cooperative Extension office.

February

Inspect hemlocks for woolly adelgid. Plan to apply a dormant horticultural oil treatment in April if the cottony egg masses are found at the base of needles.

Check for tan gypsy moth egg masses on tree trunks and branches. Scrape or brush off and destroy if possible.

Select pest-resistant cultivars or species where possible when planning the year's garden. Choose varieties appropriate to the site. Catalogs often list plants with pest resistance or check with your local Cornell Cooperative Extension office.

Check houseplants and stored bulbs as in January.

March

Horticultural oil applications at dormant rates are usually applied from late March through early May, depending on plants to be treated and weather conditions. Check product labels and contact Cooperative Extension for specific details.

Using sterile growing mix for starting garden seeds reduces problems with damping-off fungi. Avoid overwatering, which encourages root rots.

Prune out and destroy dark, swollen black knot galls on twigs of cherry and plum before budbreak.

Check for tan gypsy moth egg masses on tree trunks and branches. Scrape or brush off and destroy if possible.

Inspect bark of lilac, cherry, plum and peach for powdery white prunicola scale infestations and plan horticultural oil applications if needed. A brush is sometimes useful for mechanically rubbing the insects off.

Check trunk and rough branch areas of white pines for cottony white flecks of pine bark adelgid. Plan horticultural oil treatment if needed.

Horticultural oil treatments for maple bladder gall mite, spider mites on evergreens and scale on shrubs and trees can be applied; check labels for specifics on appropriate weather conditions.

Prune or peel off and destroy tent caterpillar egg masses. Favorite hosts include cherry, crabapple and apple. Look for the shiny, dark brown egg masses about 1" wide wrapped around small twigs.

Prune off and destroy brown shoot tips killed by Nantucket pine tip moth on Japanese black, mugo, scots, Austrian and other 2- and 3-needled pines. Damaged tips are brown and hollow in the center from the feeding of the caterpillars.

On trees, shrubs, fruiting bushes and vines, prune off and destroy cankered twigs and any branches showing dieback. Prune shortly before budbreak, or wait until just after leaves have expanded.

Thin bramble plantings (raspberries, blackberries, etc.) to increase air circulation and reduce stem and leaf disease problems.

April

Renew mulch on landscape beds and around trees and shrubs to 3-4" depth for good weed control. Landscape fabric can also be used as a barrier underneath mulch.

Where plants have a history of infestation, apply horticultural oil treatments to control spider mites on evergreens such as hollies and spruces and on certain other trees, shrubs and vines, including apple, honeylocust and grape. You may be able to see the tiny red eggs of these mites on twigs or bud scales with a hand lens.

Inspect mugo and other pines for defoliation caused by the caterpillar-like larvae of pine sawfly, which often feed in large groups. For limited infestations, prune off and destroy infested shoots or hand pick sawflies. Extensive infestations may require insecticide applications.

Remove young tent caterpillars and their webs by hand. Look especially on favorite hosts such as apple, crabapple and cherry. Some insecticides can also be applied.

Inspect honeylocust for early pod gall midge and plant bug damage. New leaflets appear red and swollen from pod gall midge. Plant bug feeding on new growth causes new leaflets to be distorted or fall off. Severe infestations may require insecticide treatment.

Plant a trap crop of radishes in late April to reduce infestations of cabbage root maggot, which causes brown tunneling through roots.

On junipers and red cedars, prune out the red-brown, round or spindle-shaped swellings (cedar-apple rust galls) on twigs and small branches.

May

Prune cherry and peach at bloom to help minimize Cytospora canker, a common disease problem affecting branches and trunks of these trees.

Avoid crowding plants when planting. Better air circulation between plants helps leaves dry faster and reduces severity of many foliar diseases that are promoted by long wet periods.

Cut out and destroy brown, damaged leaders on white pine and spruce before late July to control white pine weevil.

Look for small holes in oak foliage, and the small, hairy caterpillars that indicate early gypsy moth problems, in late May to determine whether treatment is needed. Biological control with naturally derived BT (Bacillus thuringiensis)-based insecticides works best against small caterpillars.

Check for lacebug activity on andromeda: look for whitish flecking from feeding damage on leaves; turn over foliage to hunt for the appropriately named lacebugs and evidence of their dark, shiny droppings.

Remove and destroy azalea leaf galls on azalea before they turn white and release spores. The galls appear as swollen, pale green curled leaves.

A first, light application of fertilizer can be applied to turf around Memorial Day. Slow-release materials provide nutrients over a longer period than conventional fertilizers. A soil test can help determine proper rates to use.

Remove tent caterpillar nests by hand and destroy. Some insecticides can also be used.

Watch for early signs of 'flagging' or dying limbs on elms that warn of possible Dutch elm disease. Affected limbs should be pruned off immediately.

Remove infested leaves on columbine to help control columbine leaf miner. Continue throughout summer.

In dry weather, prune out fire-blighted twigs from apple, crabapple, cotoneaster and pyracantha.

Sterilize pruners between cuts. Fire blight, a bacterial disease, causes flowers, leaves and tips of branches on these plants to droop, die and turn brown. Prune several inches below damaged areas. Since other problems may have similar symptoms, a diagnosis may be helpful if the injury is widespread.

June

Pick up fallen apple and peach fruit to control apple sawfly, plum curculio and brown rot of peaches.

Summer rates of horticultural oil can be used for many insect problems, depending on plants and weather conditions. Check product labels and Cornell Cooperative Extension for more information.

Remove infested leaves on columbine to help control columbine leaf miner. Continue throughout summer.

Use flotation cans to monitor chinch bugs in turf in early June: sink a 8-9" diameter can in infested areas, fill with warm water and wait 5 minutes, refilling if needed. Over 20 chinch bugs floating to the top suggests a problem.

Cut out and destroy brown, damaged leaders on white pine and spruce before late July to control white pine weevil.

Inspect shrubs and trees for aphids. Check branch tips and under leaves for the small insects. There are many kinds, often causing little damage. A few types may cause leaves to become distorted (e.g. snowball aphid on viburnums) or heavy infestations can reduce plant vigor. Pruning, a blast of water, insecticidal soap or other insecticides can be used if needed.

Water plants early in the day to allow above-ground parts to dry quickly and reduce likelihood of disease.

Trim off and destroy yellowed tulip leaves to help control tulip fire, a fungal disease causing flowers to die prematurely. Remove heavily infected plants.

When notching in leaf edges is noticed, intrepid gardeners can venture out at night with a flashlight to handpick black vine weevils from leaves of rhododendron, azalea, hydrangea, yew, holly, astilbe and bergenia (to name a few). Heavy infestations may require insecticide treatments starting in mid-June.

Check and prune out scale infestations on euonymus and pachysandra. Turn over leaves and inspect stems for the white or greyish scale insects. Infested branches can be pruned out in May or treated in early June, when the small, young crawler stage appears. Crawlers are visible with a handlens and look like tiny scales.

Handpick and destroy leafminer-infested foliage on holly. Look for leaves with zigzag or blotchy patterns from the insect mines. American, inkberry and winterberry hollies have miners specific to each.

Check underneath rose leaves with holes to find small, yellow-green aptly named roseslugs. Handpick or treat if needed. They can cause substantial defoliation in a short time.

From late June to August, set three red sticky sphere traps in each apple tree to control apple maggot flies, which tunnel through apples and cause fruit to be distorted.

Check for cottony maple scale on dogwood and maple. Turn over leaves and look underneath for the white, cottony scales and egg masses. Use summer rates of horticultural oil if necessary and if conditions permit.

Set out white sticky cards to trap blueberry maggot flies in late June.

Prune or 'tip' brambles in dry weather only. This will minimize the chance of disease organisms invading open wounds and improve air circulation to help foliage and stems dry faster.

July

Remove and destroy mined leaves to help control leafminer in columbine, sweet pea and verbena.

Remove and destroy Japanese beetles from roses, grapes, crabapples, lindens and other favorite hosts where possible. The beetles can be knocked into a can of soapy water, especially in evening when they are more sluggish. Large plants and severe infestations may require insecticide treatment. Some plants and varieties are less damaged than others.

Handpick and destroy black or grey blister beetles from tomatoes, eggplant, clematis and aster. Use gloves when handling blister beetles or knock beetles into a can of soapy water.

Cut out and destroy brown, damaged leaders on white pine and spruce before late July to control white pine weevil.

Check for the powdery masses of white prunicola scale infestation on trunks and twigs of lilac, flowering and fruiting cherry, peach and plum. Treat with summer rates of horticultural oil or other insecticide in early July. Scales can also be scrubbed off.

Check fruit, flowering and shade tree twigs and grapes for the shiny, brown hemispherical European fruit lecanium scale. Treat with summer rates of horticultural oil if necessary and conditions allow.

Inspect euonymus twigs and foliage and hemlock foliage for scale infestation. Apply summer rates of horticultural oil if needed and conditions allow.

Prune out and destroy brown, hollowed tips of Japanese black, mugo, Austrian and other two- and three-needled pines damaged by Nantucket pine tip moth.

Water trees, shrubs and herbaceous plants well during dry periods, but avoid wetting foliage for long periods, which favors leaf diseases. Drought-stressed plants may be more prone to disease, dieback or other problems. At least 1" of water and/or rain per week may be needed.

A thick (3-4") layer of mulch over the root zone helps maintain moisture and controls weeds. Keep mulch away from direct contact with stems. However, a thick layer of mulch around the base of fruit trees can create a wonderful home for mice and voles, which can damage bark and girdle the tree during winter. Apply a thinner layer of a light mulch such as grass clippings around fruit trees instead.

Prune off and destroy the pineapple-shaped galls on spruce while green and before they open, to help control spruce gall adelgids.

August

Water trees, shrubs and herbaceous plants well during dry periods. Up to 1" per week of water or rain may be needed.

Monitor turf for white grubs in mid-August: lift 1' x 1' sections of turf every 30' or so and inspect the roots for grubs. Look carefully for the C-shaped grubs, which will be quite small (1/4") at this time. More than 7-10 grubs per section suggests a potential for noticeable damage. Treat sod if necessary in mid-late August.

September

Pick up dropped fruit under apples to help control apple maggot and under peaches to control brown rot.

The second fertilizer application for turf, if needed, is made around Labor Day.

October

Clean up plant leaves, stems, fruit and debris to control many problems, including anthracnose diseases of trees, apple scab disease, iris borer, leaf spot on daylily, powdery mildew on phlox, leaf blotch on horsechestnut, Herpobasidium leaf blight on honeysuckle, powdery mildew and

leaf spot on Boston Ivy, tar spot on maple, leaf blister on oak, mummy berry on blueberry, black rot and downy mildew on grape.
Prune out and destroy brown twig terminals and fallen cones on Austrian, Scots, mugo and red pine to control Diplodia tip blight.
Paint white latex on trunk and scaffold limbs of cherry and peach fruit trees to control Cytospora canker disease.
Take soil samples from turf areas and plant beds to determine next year's appropriate fertilizer and lime recommendations. Kits and information are available from Cornell Cooperative Extension.

November

Remove plant debris and leaves to help control chrysanthemum and hollyhock rusts, bacterial wilt of hydrangea, cherry leaf spot, and others mentioned in October.
Rake up and destroy pyracantha fruit to help control scab disease.
Mulch strawberries for winter protection and to help control weeds.
Apply the third and final fertilizer application to turf shortly after Thanksgiving.

December

Collect and bury large-stemmed weeds and flower stalks and debris to control borers in flowering herbaceous plants.
Check tree trunks and limbs for tan gypsy moth egg masses. Scrape or brush off and destroy if possible.
Look for the small 'bags' hanging from shrubs and trees and remove by hand to control bagworms.

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