Branching Out

An Integrated Pest Management Newsletter for Trees and Shrubs

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Contents...

Thank You to Our Scouts and Diagnosticians

Amy Albam, Carol Bradford, Dawn Dailey O'Brien, Don Gabel, Sandra Jensen, Hillary Jufer, Karen Klingenberger, Elizabeth Lamb, Jen Lerner, Jessica O'Callahan, Zaidee Powers, Alice Raimondo, Mina Vescera, Mike Voss, Sandra Vultaggio

Scouting Report Notations:

(#) Numbers in regular type note plate(s) in *Insects that Feed on Trees and Shrubs* (2nd edition) by W.T. Johnson and H.H. Lyon.

(#) Numbers in italics note plate(s) in *Diseases of Trees and Shrubs* (2nd edition) by W.A. Sinclair, H.H. Lyon, and W.T. Johnson.

Scouting Report

Conifers

Bagworm (80, 81)—old egg cases in Westchester Co. Remove/destroy ones with live eggs before mid-June.

Bagworm egg case on fence (Hillary Jufer)

Cedar-Apple Rust (*129-133*)—galls of *Gymnosporangium juniperi-virginianae* have developed large showy orange telia. These produce basidiospores that will go to apple and crabapple now to form leaf spots, e.g. in Tompkins Co.

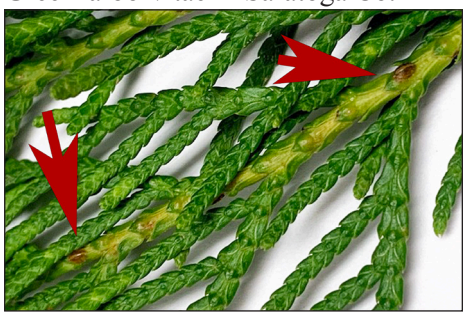
Coleosporium Needle Rust (*143*)—*Chrysomyxa weirii* on blue spruce in Westchester Co.

Coleosporium needle rust (Hillary Jufer)

Dieback—on *Sequoiadendron* cause unknown; noted in Monroe Co.

Unknown cause of dieback (Karen Klingenberger)

Fletcher Scale (42)—overwintered nymphs and dead adult on 'Emerald Green' arborvitae in Saratoga Co.



Fletcher scale nymphs (see arrows) (Stacy Simmons)

Pear Trellis Rust—orange telia on 'Robusta Green' juniper in Suffolk Co. Some dieback evident with extensive galling.

Pear trellis rust (Dan Gilrein)

Rhabdocline Needlecast (*15*)—on Douglas fir in Westchester Co.

Cornell University Cooperative Extension

Seiridium Canker (*95*)—on arborvitae on Staten Is. Arrow points to area of sporulation within damaged tissue. See *Under the Scope* for a spore view.

Seiridium canker (Sandra Jensen)

Winter Injury (*95*)—possibly a winter injury on new growth of *Cryptomeria* in Monroe Co.

Possible winter injury (Karen Klingenberger)

Broad-leaved Trees and Shrubs

Alfalfa Mosaic Virus—observed on pachysandra in Nassau Co. Identified by its distinctive symptoms of yellow spotting and rings on foliage.

Alfalfa mosaic virus (Donna Moramarco)

Azalea Bark Scale (160)—eggs in Rockland Co.

Azalea Whitefly (151)—adults active in Rockland Co. Hosts include yellow (*R. luteum*), Korean (*R. mucronulatum*), royal (*R. schlippenbachii*) and some hybrids of these.

Black Cherry Aphid—on curled leaves of black cherry (*P. avium*) in Tompkins Co. The base of the antennae is pale, distinguishing from black peach aphid (antennae entirely dark) which also tends to feed on twigs. Some populations may host-alternate with bedstraws, speedwells, and eyebright.

Black cherry aphids (left) and curled leaf damage (Sandra Jensen)

Black Knot (*75*)—on cherry in Onondaga Co.

Blackberry Scale & Rust (175-scale)—likely rose scale males & females, and rust, on stems in Rockland Co.

Rust (left) and likely rose scale (Amy Albam)

Boxwood Leafminer (94)—small "windows" evident under leaves through which pupae emerge; adults appearing now in NYC and Suffolk Co.

Boxwood leafminer "windows" and pupa ready to emerge (inset) (Dan Gilrein)

Cankerworm (63, 64)—inchworms active in Rockland and Suffolk Cos. Fall cankerworm is usual species; eastern Suffolk seeing more winter moth in recent years. which are similar but lack the third (forward) pair of very reduced prolegs (see 63C).

Cold Injury (*242-248*)—very low temperature on April 20, preceded by record or near-record heat, led to some severe bud damage across the State notably in grapes, and also apparently widespread distorted first foliage on bigleaf hydrangeas, lilac, magnolia and Kousa dogwood recently seen around Nassau and Suffolk Cos.

Cold injury on lilac (Dan Gilrein)

Cottony Camellia Scale (164)—white, dead scales remaining on leaves from 2025 in Suffolk Co. Over 90% killed by insect pathogen (fungus). Homeowner noticed sooty mold from last year but decided against treating after seeing scale population nearly wiped out by biocontrol.

Dead cottony camellia scale (Dan Gilrein)

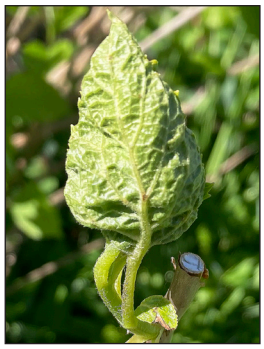
Cottony Maple Leaf Scale (163, 165)—egg masses on variety of plants, hardscaping, and structures in NYC. Sometimes mistaken for (and resembling) mealybugs, these are produced by the mature female scales of several species that drop off host plants in high winds but continue to produce egg masses where they lie. Not uncommon during occasional scale outbreaks, we suspect the culprit in this case is cottony maple leaf scale on overstory trees.

Cottony maple leaf scale egg cases on pavers after wind storm (Ralph Tuthill)

Dogwood Anthracnose (*52*)—leaf lesions in Rockland Co. and some spotting on flowers in Westchester Co.

Fourlined Plant Bug (190)—small nymphs in Rockland Co. Often on forsythia, weigela, azalea, mints causing discrete small brown spots.

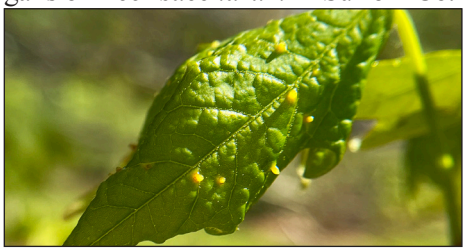
Hydrangea Leaftier—terminal leaves "glued" together by leaftier moth larvae on on *Hydrangea macrophylla* 'Annabelle' in Monroe Co.



Hydrangea leaftier (Karen Klingenberger)

Imported Willow Leaf Beetle (106)—adults and feeding injury on willow in Rockland Co.

Leaf Galls (232)—suspect eriophyid mite galls on *Acer saccharum* in Suffolk Co.



Likely eriophyid mite galls (Michael Voss)

Leafrollers (100, 101)—on *Aronia* in Tompkins & on oak, rose and Kwanzan cherry in Suffolk Cos.

Leafroller damage & larva on Aronia *(Elizabeth Lamb)*

Peach Leaf Curl (*1*)—infection by *Taphrina deformans* seen on peach in Onondaga Co.

Peach leaf curl (Carol Bradford)

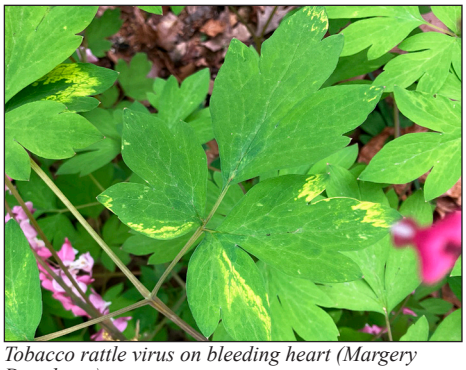
Roseslug Sawfly (58)—small larvae on rose in Rockland, Suffolk Cos. Damage light but noticeable with different pattern from leafroller.

Rust (*135*)—yellow spots appearing on European buckthorn foliage in Tompkins Co. See *Under the Scope* for sporulation.

Yellow spots on upper surface of leaves with rust (Sandra Jensen)

Sycamore Anthracnose (*51*)—in Rockland Co. Very wet weather this spring is ideal for anthracnose to infect tender young leaves on numerous hosts. If trees defoliate (and not stressed by other factors), they should have another flush of new growth and plenty of time to store nutrients before winter.

Tobacco Rattle Virus—seen on bleeding heart in Suffolk Co.; also common on peony and epimedium, as well as many other hosts.



Tobacco rattle virus on bleeding heart (Margery Daughtrey)

Vole Damage (241I similar)—on *Viburnum pragense* roots in Nassau Co.

Vole feeding damage (Richard Weir)

Winter Spotting—purple to black spots on *Ilex glabra* in Tompkins Co., thought to be related to winter cold and desiccation.

Winter spotting (Elizabeth Lamb)

Woolly Aphids (145, 150)—on hawthorn in Westchester Co. Woolly apple aphid (also on apple and several other hosts) and related *E. crataegi* (also on pyracantha) have colonies on bark, twigs and roots; elm is the alternate host. *Prociphilus corrugatans* also on hawthorn causing curling leaves in spring, migrates to sedge and rush roots for summer.

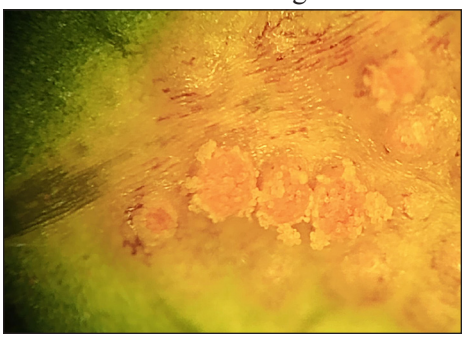
Under the Scope:

Reports from Diagnostic Labs

American Hairy Rose Aphid—low numbers of pale yellow-green aphids, probably *Chaetosiphon tomasi*, on new terminals of multiflora rose in Suffolk Co. Reported on wild and cultivated roses and some potentillas, more: https://tinyurl.com/AmHairyRoseAphid.

American hairy rose aphid (Dan Gilrein)

Rust on European Buckthorn (*135*)—From the Ithaca Plant Disease Diagnostic Clinic: aecial stage of buckthorn rust (*Puccinia coronata* complex), visible on undersurface of buckthorn leaves (*Rhamnus cathartica*) (see *Scouting* section for symptoms). As the host plant is invasive, recommend plant removal rather than disease management.



Looking down into the aecia which hold rust spores (Sandra Jensen)

Seiridium Canker on Arborvitae (*95*)—Another from the PDDC in Ithaca. The areas where the causal fungus is sporulating and the spores themselves are visible at two different levels of magnification. See dieback symptoms in the *Scouting* section.

Seiridium on dead shoot (top) and spores (above) (Sandra Jensen)

Branching Out
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Miscellany

Travella 20SG insecticide, a formulation of dinotefuran, was recently registered in NY. Use in NY is currently limited to labeled indoors (enclosed structures) and basal trunk sprays outdoors - no outdoor foliar spray or soil drench uses allowed. Under the NY Birds and Bees Act landscape uses of dinotefuran in NY are currently only for invasive species affecting woody plants (or permitted emergency use); landscape professionals/arborists using any dinotefuran insecticide must also complete the approved neonicotinoid course annually. This new registration expands possible commercial landscape plant uses of dinotefuran in NY beyond emerald ash borer on ash, hemlock woolly adelgid and elongate hemlock scale on hemlock, and spotted lanternfly (SLF) on tree-of-heaven (note SLF is not included as a target pest on the Travella label). Pollinator protection language on the label restricts application to post-bloom only.

Phenology by County

Monroe: lilacs, katsura, viburnum, Tartarian honeysuckle

Onondaga: sugar & silver maple, buckthorn, bur oak, common lilac, barberry, azalea, blueberry, bridalwreath spirea

Rockland: bladdernut, winged euonymus, horse chestnut, black locust, catawba rhododendron, roses, tuliptree, weigela

Suffolk: Carolina silverbell, Japanese kerria, horse chestnut, Siebold viburnum, black chokeberry, bridalwreath spirea

Tompkins: crabapple, redbud, common lilac, horse chestnut

Westchester: azaleas, rhododendrons, horse chestnut, hawthorn

Dan Gilrein, Karen Snover-Clift, Margery Daughtrey & Shari Romar, editors

Growing Degree Days

As of May 19, 2026

Station	GDD_{50}	Station	GDD_{50}
Albany	287	Ithaca	218
Binghamton	265	New Brunswick,NJ	535
Boston, MA	235	Poughkeepsie.	356
Bridgeport, CT	283	Riverhead	344
Buffalo	225	Rochester	264
Central Park	519	Syracuse	284
Farmingdale	290	Watertown	147
Hartford, CT	330	Westchester	320
		Worcester, MA	208

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- Mount Pleasant Cemetery
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Steps to Assess Symptoms

Mina Vescera, Nursery & Landscape Specialist, Cornell Cooperative Extension of Suffolk County (all images courtesy of the author except where noted)

When was the last time you asked yourself this question or heard it from one of your customers: What's causing those symptoms? Plant symptoms, of course! Arborists and plant healthcare technicians most commonly question whether disease or an insect or mite pest is to blame. Your customer wants to know if it's the latest pest being featured on the news or if the neighbor is trying to hurt their tree. Many times, figuring out the cause or causes needs a deeper dive. The best approach to answering this question is to start with a site assessment and ask yourself more questions to discern if the symptom is caused by something living (biotic causal factors), nonliving (abiotic elements), or all the above.

What to evaluate during a site assessment?

It's likely there are multiple factors at play and while pictures are helpful, often a site assessment is necessary to better understand the environmental conditions and to collect a proper sample for lab diagnosis. Some questions to include in your site assessment are:

1. What is the plant species? How confident are you in your plant ID skills? Is it a black pine (*Pinus thunbergii*) or pitch pine (*Pinus rigida*)? Knowing the difference helps with your list of possible culprits.
2. What are the cultural preferences of the plant and are they being met or exceeded (e.g., light requirements, soil pH, drainage, compaction, irrigation, etc.)?
3. Was the plant recently transplanted? For trees, 1 to 10 years is considered recently transplanted.
4. Is the plant susceptible to any major diseases or insect/mite pests?
5. Have any property renovations occurred recently?
6. When did the symptoms first appear?
7. Is there a pattern to the observed symptoms?
8. Could weather conditions (drought, extremes of heat or cold) be factors?

Are the primary symptoms caused by a living or nonliving agent?

This is an important question to address because it directs your management response. Of course, the answer could be both, but it's helpful to be able to distinguish between the two. Let's start with living (biotic) agents whose mechanism of feeding or reproduction causes symptoms such as leaf spots, root rot, stem cankers, galls, discoloration, dieback, and more (Figure 1). They can be invisible to the naked eye (i.e., fungal and bacterial microbes or eriophyid mites) or have a more obvious presence like scale and aphids. Biotic causal agents damage plant tissue when they penetrate or invade plant cells with their fungal hyphae, piercing-sucking or chewing mouthparts, boring and tunneling, or other means. The pattern of the symptom is usually random across the plant or landscape (Figure 2). It's helpful to review the list of diseases and pests the plant is susceptible or most prone to, so you become familiar with symptoms when conducting a site assessment. Boxwood (*Buxus* spp.), for example, is susceptible to several specific diseases and pests (e.g., boxwood blight, boxwood psyllid, boxwood leafminer, Volutella blight, boxwood spider mite), while others like maidenhair tree (*Ginkgo biloba*) are practically bulletproof to attack.

Figure 2: Would you say there's a pattern to these symptoms on this boxwood hedge? The chaotic pattern suggests there are biotic causal agents at play, but that doesn't mean environmental factors aren't creating stress that reduce resistance to pathogens.

Agent	Example	Mechanism of Injury	Visible Symptoms
Bacteria	Fire Blight	Colonization and penetration of plant surface	Scorched leaves, wilted stem tips
Fungi	Boxwood Blight	Rapid colonization and penetration of leaves	Leaf spots defoliation, blackened stem cankers
Insect Pest	White Prunicola Scale	Piercing-sucking feeding of stems and leaves	Yellowing leaves, thinned appearance
Mite	Spruce Spider Mite	Piercing-sucking feeding of leaves	Stippling / yellowing of interior leaves, needle drop
Parasitic Plant	Dodder	Extraction of nutrients from host vascular system, smothering	Presence of dodder vine, weaken / stunted growth

Figure 1: Examples of biotic causal agents.

Regardless of where a species falls on the spectrum of susceptibility for biotic causal agents, no plant is immune to the many nonliving (abiotic) disorders that can impact plant health. Abiotic causal agents are caused by a multitude of factors (Figure 3). The pattern of symptoms is usually uniform across

Agent	Examples	Visible Symptoms
Environmental Injury	Drought, lightning	Scorched leaves, sudden wilt, dieback, dead roots
Mechanical	Weed trimmer, mower injury to stems / trunks	Stunted growth, thin crown / canopy, oozing
Chemical Burn	Fertilizer, pesticide / herbicide burn	Necrotic tissue, abnormal growth usually followed by normal development
Nutritional Status	Nitrogen (N) deficiency or excessive uptake of boron (B)	Older yellow leaves for N deficiency. Yellowing / necrosis of leaf tips & margins for B toxicity
Cultural Practices	Deep planting, poor pruning	Thin crown, dead stub, poorly developed wound wood, dead roots

Figure 3: Examples of abiotic causal agents.

the landscape or within the plant (Figure 4). For example, pesticide application injury can affect the entire plant uniformly or show a clear delineation between symptomatic vs. asymptomatic plant tissue. Sudden onset of symptoms (appearing within days) is commonly associated with abiotic disorders. Lightning strikes, herbicide drift, and heat stress are examples of causal agents with quick onset of dramatic symptoms.

Top: Figure 4a: pesticide application injury on California privet (*Lig-ustrum ovalifolium*) (Margery Daughtrey). Bottom: Figure 4b: salt-spray injury on willow (*Salix* spp.).

Diagnosing plant problems can be complex, especially when both living and nonliving causal agents are at play. An article by Joe Boggs and his colleagues from Ohio University State Extension offered the following advice for diagnosing plant issues:

"Plant problem diagnostics should be guided by the axiom: don't make the symptoms fit the diagnosis; do make the diagnosis fit the symptoms," (Boggs et al.2017).

Let the motto "test, don't guess!" be your guide and a reminder that sloppy sleuthing is a surefire way to pointless and costly management practices.

Should you collect a sample for lab diagnosis?

If you suscept a living causal agent, it is always best to get a diagnosis. Take pictures to allow diagnosticians to provide an informed perspective. Diagnostic laboratories appreciate receiving the combination of living plant tissue and associated pictures (check that your pictures are not blurry). Take close-ups of the symptoms and signs (sawfly eating a leaf) and a few wide shots so elements of the surrounding landscape are visible. Check out the sample collection and submission tips on the Cornell Plant Disease Diagnostic Clinic website before collecting your sample: https://tinyurl.com/2es7epfa. Proper packaging is important! Figure 5 shows what happens when poorly shipped samples are received.

Should I try AI diagnosis assistance?

I think most people using AI platforms are beginning to realize that despite the confidence expressed in the response, many times AI is not quite accurate. I assessed a few platforms this winter and found AI diagnosis based on symptoms alone was unreliable. The need for specific prompting and the fact that symptoms from various pathogens and causes can be similar creates too great a margin of error. Nothing beats a good site evaluation and submission for diagnosis by experienced diagnosticians.

Figure 5 To ensure your plant sample does not rot enroute, follow lab instructions for collection and submission.

References & Resources

Boggs, J. Draper, E., Chatfield, J., Williams, S.D., and M.J. Boehm. *20 Questions on Plant Diagnosis.* Ohio State University Extension: https://ohioline.osu.edu/factsheet/plpath-gen-3

Cornell Plant Disease Diagnostic Clinic, *Sample Collection and Submission Tips*: https://plantclinic.cornell.edu/services/collection-tips/