Branching Out

An Integrated Pest Management Newsletter for Trees and Shrubs

Volume 32 No. 7 July 4, 2025

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

Douglas-Fir Needle Midge (15C)—on Christmas trees in Albany Co. Distortion resembles that from Cooley spruce gall adelgid, except for slight swelling.

Douglas-fir needle midge damage (Dan Gilrein)

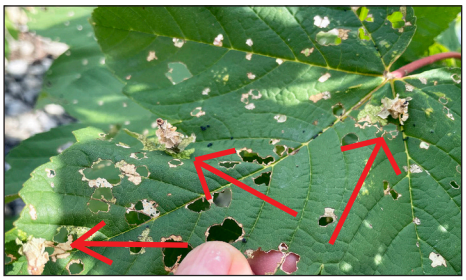
Twospotted Spider Mite (52, 53)—on 'Torulosa' juniper in Suffolk Co. Spruce spider mite is the much more common cause of such damage but our correspondent indicates twospotted spider mite is the culprit in this case.

Twospotted spider mite damage and webbing (John Mitchell)

Broad-leaved Trees and Shrubs

American Sycamore Issues—anthracnose, powdery mildew and shotholing from **sycamore plant bug (192)** in Tompkins Co. Powdery mildew also noted in Queens Co.

Bagworm (80, 81)—on sycamore maple leaves in Suffolk Co. Young larvae in small "bags" making small patchy holes and skeletonized areas.



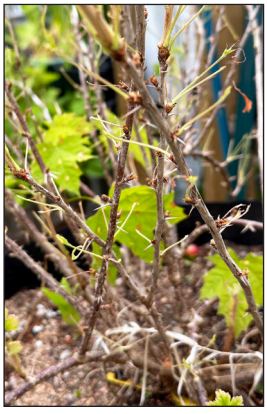
Bagworm damage and larvae in little "bags" at arrows (Dan Gilrein)

Climbing Spur Injury—on oak trunk in Suffolk Co.

Right: injury from climbing spurs (Ernest Fox). Below: crapemyrtle aphids (Dan Gilrein)

Crapemyrtle Aphid—on crape myrtle in Suffolk Co.

Currant Sawfly (Imported Currant-worm)—defoliating *Ribes* 'Tixia' ('Rafzicta') in Onondaga Co. Larvae not present, but damage typical.



Left: imported currantworm damage (Carol Bradford); above: sawfly larvae on a different host (Dan Gilrein)

Cornell University Cooperative Extension

Dutch Elm Disease (*119*)—on elms in Rockland and Suffolk Co.

Elm Leaf Galls—*Tetraneura nigri-abdominalis*, sometimes called "Oriental grass root aphid", causing red bladder galls on upper surface of elm leaves in Suffolk Co. More at https://tinyurl.com/mrxwm5zm

Elm leaf galls (George Dalecki)

European Fruit Lecanium (174)—soft scale nymphs on hawthorn in Suffolk Co.

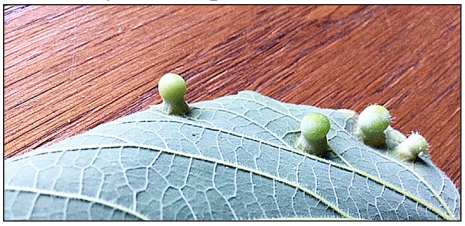
Fourlined Plant Bug (190)—damage to several plants including inkberry holly in Suffolk Co.

Fourlined plant bug damage (Dan Gilrein)

Ganoderma Root Rot (*173*)—a fresh conk of a *Ganoderma* sp. on an exposed root in NYC. Root rot fungi from this group affect a wide range of species, including beech, birch, cherry, hornbeam, magnolia, maple, and oak. Sapwood is decayed in the butt and major roots, gradually leading to thin crowns, dieback, death, or windfall. Wounds and environmental stresses, such as drought, can predispose trees to infection.

Gandoderma conk (Mina Vescera)

Hackberry Psyllid (217 F, G)—*Pachypsylla* spp. causing galls on hackberry in Tompkins Co.



Hackberry psyllid galls (Elizabeth Lamb)

Heat Stress/Damage—on hydrangeas and other plants in Rockland and Suffolk Cos. Symptoms include leaf scorching and wilting.

Heat-stressed wilting hydrangea (Amy Albam)

***Kretzschmaria deusta* (*206*)**—more on Norway maple in Tompkins Co.

Oak Apple Gall (215D)—on ground under oaks, wasps emerged., in Tompkins Co. **Horned oak gall (213C)** on oak in Suffolk Co.

Horned oak gall (Margery Daughtrey)

Pear Trellis Rust—spindle-shaped rust galls damaging juniper 'Robusta Green' on one property in Suffolk Co.; alternate host pears across the street.

Twig galling from pear trellis rust (Margery Daughtrey)

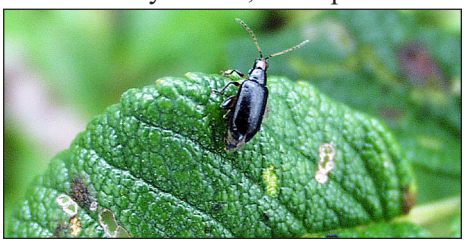
Powdery Mildew (*3-6*)—on hydrangea in Onondaga Co., American sycamore & London plane in Tompkins and Queens Cos., ninebark 'Seward' Summer Wine in Tompkins Co. Tiny black chasmothecia (fruiting bodies) beginning to form on ninebark.

Powdery mildew on London plane (Shari Romar)

Quince Rust (*129-133*)—on Aronia flower parts, cycling back and forth with the neighbor's junipers in Suffolk Co.

Quince rust (Margery Daughtrey)

Redheaded Flea Beetle—on *Rosa rugosa*, panicle hydrangea in Suffolk Co. nurseries. *Itea* a favorite host but will feed on many shrubs, some perennials.



Redheaded flea beetle (Dan Gilrein)

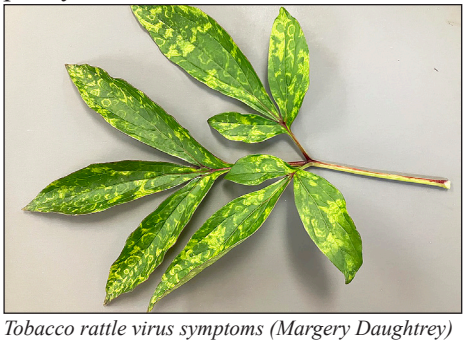
Rose Rust (*128*)—*Phragmidium* sp. reported this month on roses in many public gardens on Long Is. Multiple species of *Phragmidium* affect rose and have no alternate hosts. Rose rusts are favored by long rainy periods and temps between 64-70F; hot, dry summers discourage the disease.

Spittlebug (202B)—appears to be dogwood spittlebug, *Clastoptera proteus*, on *Cornus sericea* in Tompkins Co. Other hosts include *Vaccinium* and *Aesculus*

Spittlebug on red osier dogwood (Zaidee Powers Rosales)

Tar Spot (*32*)—starting to show (as yellow spots) on Norway maple leaves in Rockland Co.

Tobacco Rattle Virus (TRV)—on peony in two Suffolk Co. nurseries.



Tobacco rattle virus symptoms (Margery Daughtrey)

This virus of herbaceous ornamentals and vegetables is vectored by stubby-root nematodes in the soil and it can also be moved mechanically or in seeds. It is often seen on peony, bleeding heart and epimedium; approx. 400 additional host species are known. Nice reference with photos: https://tinyurl.com/2rfw6rrj

Tubakia Leaf Spot (*21*)—tentatively identified from photos on *Quercus velutina* in Suffolk Co.

Possible Tubakia leaf spot (Michael Voss)

Turpentine Beetle (24, 25)—pitch tubes at base of pitch pine in Suffolk Co. and declining eastern white pine in Hamilton Co.

Turpentine beetle pitch tubes (Margery Daughtrey)

Vein Pocket Galls—from eriophyid mite *Phyllocoptes exochordae* on common pearlbush in Tompkins Co.

Vein pocket galls (Karen Snover-Clift)

White Prunicola Scale (188)—crawlers present on privet in Suffolk Co. Check also Lilac, *Ilex*, *Prunus* spp. - most common hosts.

Whitemarked Tussock Moth Caterpillar (71G)—in Tompkins Co.

Witchhazel Cone Gall Aphid (217)—on witchhazel (*H. virginiana*) in Suffolk Co. Two species now known to cause similar galls; *Hormaphis cornu* alternates with river birch, where they form an odd black stage bearing a white fringe of filaments under leaves resembling whitefly pupae. *H. hamamelidis* doesn't host-alternate. More: https://tinyurl.com/yrct9kbb

Right: cross-section of cone showing aphids inside; top, next column: witch-hazel cone gall aphid galls (John Mitchell)

Woolly Apple Aphid—producing leaf rosette on elm in Suffolk Co. More at https://tinyurl.com/5n7ckr6k

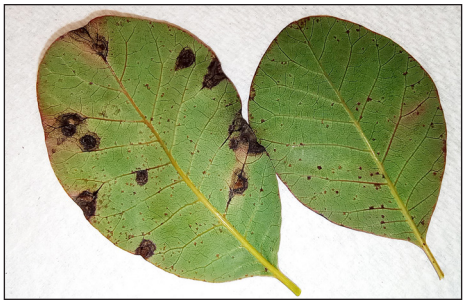
Leaf rosette gall on elm from woolly apple aphid (Sandra Vultaggio)

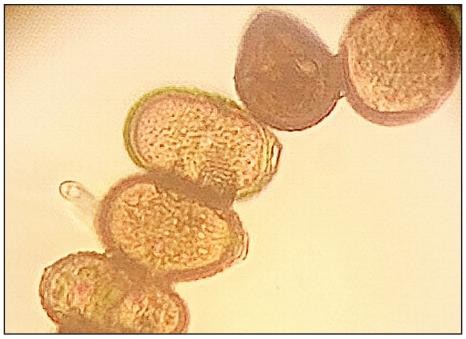
Woolly Beech Leaf Aphid (140A,B)—on European beech in Suffolk Co.

Under the Scope:

Reports from Diagnostic Labs

Smoketree Rust—*Pileolaria cotini-coggygriae* found on *Cotinus* from Dutchess Co.





Top: smoketree rust on Cotinus*; above: rust spores under magnification (Sandra Jensen)*

Verticillium Wilt (*120-121*)—on tuliptree from the Bronx cultured by the Ithaca Plant Disease Diagnostic Clinic.

Miscellany

CleanSweep Fall Collection: FREE disposal of unwanted pesticides, fertilizers and other chemicals for farms & commercial applicators. Schools eligible too. October 28-31, 2025 in Long Island and NYC. More info: https://tinyurl.com/mumaxuky

New Beech Leaf Disease Treatment: A 2(ee) label has been approved in NY for Arborjet's PHOSPHO-jet, an injected phosphite material. American beech injected with PHOSPHO-jet last September on Long Island's North Fork showed improved canopy density this June. The user must have the 2(ee) recommendation (copy on NYSPAD: https://extapps.dec.ny.gov/nyspad/) in their possession at the time of use; application details are on this label.

Beech leaf disease on American beech (Margery Daughtrey)

Not *that* potato leafhopper. Leafhoppers causing pale stippling on dahlias in Suffolk Co. have been identified as western potato leafhopper, *Hebata abrupta*. They resemble our familiar potato leafhopper but don't cause "hopperburn". Resident in western US and Mexico, this is only the second report of it in NY. Thanks to Dr. Chris Dietrich of Illinois Natural History Survey for the ID.

Top: adult western potato leafhopper (see arrow) and damage to dahlias; above: adult western potato leafhoppers (Dan Gilrein)

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Plant Pathology and Plant-Microbe Biology
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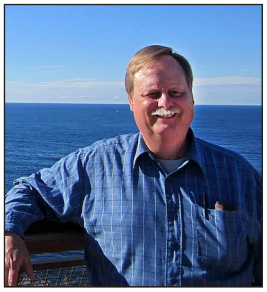

Dr. Paul Curtis Retires June 30: After 35+ years, Professor of Wildlife Science in the Dept. of Natural Resources & Environment at Cornell and a Certified Wildlife Biologist® with The Wildlife Society, he received a Ph.D. in Zoology from NC State University and a M.S. in Wildlife Biology from Colorado State University. His research included human-wildlife conflicts in suburban, forested, and agricultural landscapes, wildlife fertility control, and resolving community-based wildlife issues. He has supervised research projects dealing with white-tailed deer, black bears, colonial water-birds, urban goose management, and bird damage to fruit crops. His extension programming has included a variety of wildlife-related booklets, videos, and fact sheets. Dr. Curtis is a co-author of the National Wildlife Control Training Program (https://nwctp.com/). Our congrats and best wishes!

Phenology by County

Monroe: sweetspire, fine line buckhorn, peach leaf bellflower

Onondaga: privet, linden, trumpet vine, Virginia creeper, hydrangeas, clematis, tuliptree, staghorn sumac

Rockland: tree of heaven, trumpet vine, smooth & staghorn sumac, Magnolia 'Bracken's Brown Beauty'

Suffolk: California privet, southern magnolia, American beautyberry, bigleaf hydrangea, *Hydrangea arborescens* 'Annabelle'

Tompkins: catalpa, linden, mock orange, rugosa & multiflora rose

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

Growing Degree Days

As of July 1, 2025

Station	GDD_{50}
Albany	1020
Binghamton	807
Boston, MA	1040
Bridgeport, CT	1110
Buffalo	923
Central Park	1370
Farmingdale	1139
Hartford, CT	1122
Ithaca	837
New Brunswick,NJ	1308
Poughkeepsie.	1154
Riverhead	1161
Rochester	928
Syracuse	968
Watertown	774
Westchester	1156
Worcester, MA	907

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It's About Time for a Plant Nutrient Check-Up

Mina Vescera, Nursery/Landscape Specialist, Cornell Cooperative Extension of Suffolk County

There's always more than meets the eye when trying to diagnosis plant issues. When scouting or troubleshooting plant problems, it's important to keep in mind that pests and pathogens might not always be the main cause of the symptoms you're observing. If a symptom is observed that can't be attributed to something living or an injury, then it's time to evaluate your nutrient management. Foliar or tissue analyses are the only way to know if a plant is lacking nutrition. Stunting, off-color leaves, distorted growth, and necrotic spots are only a few examples of symptoms caused by nutrient deficiencies. Charts showing visual clues of nutrient deficiencies are helpful but can also be misleading. More than one nutrient might be lacking, or the symptom might not clearly match those pictured in the chart (Figure 1). One factor usually separating nutrient deficiency from disease or pest injury is the pattern of symptoms. A uniform pattern on the plant or in the landscape usually points to a cultural or environmental issue rather than one caused by a disease or pest.

Fig. 1: Bean leaves showing chlorosis and browning due to a deficiency of zinc. Interpreting foliar nutrient symptoms without a lab analysis is tricky as demonstrated by the range of symptoms in this bean-leaf example. Howard F. Schwartz, Colorado State University, Bugwood.org

Plant Nutrient Refresher

Varying somewhat according to source, there are about 17 plant nutrients essential to plant growth. Carbon, oxygen, and hydrogen, provided by carbon dioxide and water, make up 96% of a plant's biomass! The other 14 nutrients are provided by the soil and quantities needed vary by nutrient and plant species (Figure 2). Nutrients required in greater quantities are collectively referred to as primary nutrients (comprised of macro- and secondary nutrients). Those nutrients required in much lesser quantities are referred to as micro- or trace nutrients.

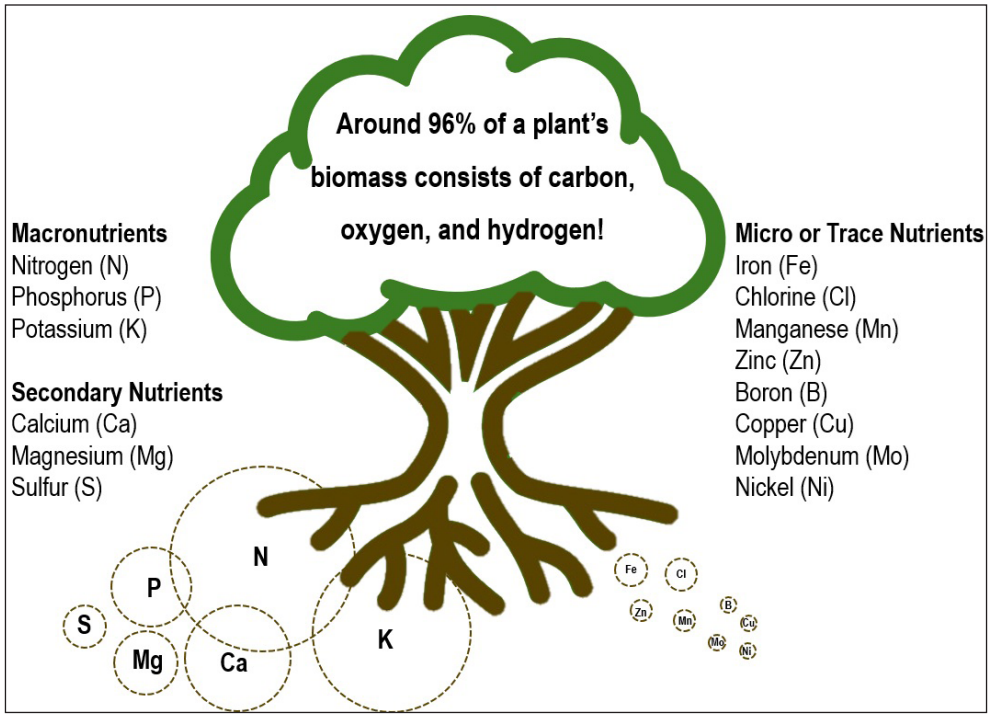

Fig. 2:Essential plant nutrients categorized by amount needed. Circles are not to scale but represent generalized demand of each nutrient by the plant.

Fig. 3: Classic iron deficiency (left) and nitrogen deficiency (right) symptoms on rhododendron. Note how the location of the deficiency symptom differs. Left image credit: George Hudler, Cornell University, Bugwood.org. Right image credit: Neil Bell, Oregon State University

Keep in mind that each essential nutrient, regardless of the amount required, plays an important role in cellular processes that allow plants to grow and thrive in the landscape. Where an essential nutrient is lacking, visual symptoms will alert you that something is amiss. The quantity of each nutrient needed is not necessarily correlated with the severity of the symptoms when a deficiency exists. A plant lacking a micronutrient can look just as strikingly symptomatic as a plant that is lacking a macronutrient (Figure 3). However, where the symptom occurs on the plant provides clues as to which nutrients might be lacking. Are the symptoms mostly at the growing tips? Older leaves only? Figure 4 lists nutrient deficiency symptoms with an emphasis on location.

Nutrient	Deficiency Symptoms
Calcium	New leaves (at tips of plant) are distorted or irregularly shaped.
Nitrogen	General yellowing of older leaves (interior of plant). The rest of the plant is often light green.
Magnesium	Older leaves turn yellow at edge leaving a green arrowhead shape in the center of the leaf.
Phosphorus	Leaf tips look burnt followed by older leaves turning a dark green or reddish purple.
Potassium	Older leaves may wilt and look scorched. Loss of chlorophyll between veins at the base, scorching inward from leaf margins.
Sulfur	Younger leaves turn yellow first, sometimes followed by older leaves.
Boron	Terminal buds die; plant is stunted.
Copper	Leaves are dark green; plant is stunted.
Iron	Yellowing occurs between the veins of young leaves. Area between veins may also appear white.
Manganese	Yellowing occurs between the veins of young leaves. These areas sometimes appear "puffy." Pattern is not as distinct as with iron deficiency. Reduction in size of plant parts (leaves, shoots, fruit) generally. Dead spots or patches.
Molybdenum	General yellowing of older leaves. The rest of the plant is often light green.
Zinc	Terminal leaves may be rosetted and yellowing occurs between the veins of the new leaves.

Fig. 4: Examples of nutrient deficiency symptoms. Source: Modified from Magdoff and Van Es, 2021. https://www.sare.org/resources/building-soils-for-better-crops/

Nutrient Mobility after Uptake

Once a nutrient is taken up from the soil-water solution, how mobile that nutrient is within the plant determines where deficiency symptoms are first visible (Figure 5). If nitrogen, which is mobile within a plant, is lacking from the soil, the plant responds by moving nitrogen from older plant tissue (e.g., interior, lower leaves) to younger growing tips that require a lot of nitrogen to produce plant cells. Conversely, if iron, an immobile plant nutrient, is lacking from the soil or soil pH is not conducive for uptake, the plant cannot move iron stored in older plant tissue to growing tips. The resulting symptom in both examples (see Figure 3 as a reference for off-color, yellow foliage, but in different locations on the plant) alerts the plant health care technician that something is off and a corrective action is required. As with pest and disease issues, don't try to guess! It's always wise to test first to be best informed on how to proceed. In some cases excessive nutrient uptake can also cause symptoms that might be mistaken for deficiency. Test – don't guess – to know for sure!

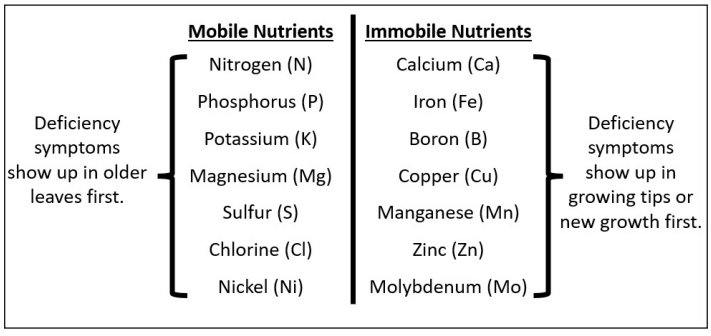

Fig. 5: Mobility of nutrients within a plant.

Monitoring Nutrient Levels

For deciduous and broadleaf evergreen woody plants (including deciduous conifers), late July to early August is the perfect time of year to conduct routine tissue analyses to monitor nutrient management or troubleshoot a nutrient issue. For evergreen conifers, collect tissue samples in late fall or early winter, once trees are dormant. If the plant is symptomatic, collect both asymptomatic and symptomatic leaves, if possible. If a nutrient deficiency is suspected, it's a good practice to collect both a soil and tissue sample so you have a complete snapshot of the plant nutrient status. By collecting both at the same time, you'll better understand what corrective actions are needed. Often, adjusting soil pH is the only corrective action needed to address nutrient deficiencies.

How to Collect a Tissue Sample for Nutrient Analysis

For woody plants, a tissue sample commonly consists of leaves. It's always best to check with the laboratory or your Extension office on what plant parts provide the best nutrient status. For deciduous trees/shrubs or broadleaf evergreens, collect leaves from the third to fifth nodes from the tip (Figure 6). Regardless of stem arrangement (alternate, opposite, etc.), collect leaves from several branches instead of collecting them all from one branch. Avoid collecting leaves from growing tips and older leaves since this will skew results. Avoid leaves that are severely symptomatic such as those with abundant necrotic tissue or absent areas due to insect feeding or other physical injury.

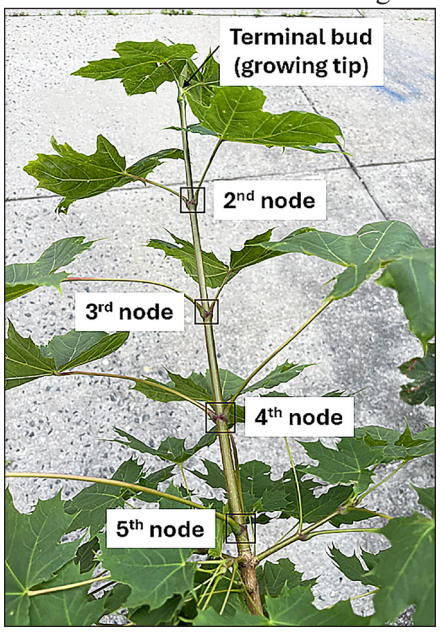

Fig. 6: Leaves for a foliar tissue sample are collected from the 3rd to 5th node on a tree or shrub. Leaves and buds arise from stem nodes.

At least 5–10 leaves or 5–6 grams fresh weight (0.3 grams dried per sample) are needed to conduct a complete chemical analysis. If you're collecting from trees or shrubs with smaller leaves, triple the amount (15–30 leaves). When collecting from needled conifers, collect samples from the upper third of the tree (avoid the leader) and snip about 3 –6" from various stem tips around the tree(s) until you have about 2–3 ounces of needles. Use paper (not plastic) bags to collect and ship samples to the testing lab; do not forget to label the bags!

Most labs (see: https://tinyurl.com/pj8abmxn) will have results in 7–10 business days, and there may be an extra fee for interpretation and recommendations. Your local Extension educator can also assist with collecting samples, interpreting results, and providing nutrient management recommendations.