Tree dieback

On one of our properties a number of oak trees and a few conifers show various degrees of decline and dieback. Any idea what may be the problem?

— MARYLAND

A general tree decline and dieback can often be attributed to a root disorder, root damage or a root dysfunction.

Begin your inspection by checking the base of the tree for proper root flare. If you don’t see the flare, that is an indication of fill damage, because of either excess soil and/or mulch. This would require root crown excavation using a shovel. Dig the soil near the base of trunk and gently tap the bark. If it sounds hollow or if you find any evidence of a whitish fungal mycelial growth (rhizomorph), this indicates Armillaria root rot. In conifers, look for a whitish fungal mycelial rhizomorph while performing root crown excavation. Whitish mycelial growth suggests Armillaria root rot caused by Armillaria sp.

If you have many trees to examine, consider using compressed air or high-pressure water to excavate.

In addition to a white mat of fungal mycelium under the bark or in the root collar, the infected tree’s foliage will discolor and drop. As a first sign of disease, infected conifers will often exude resin from their roots and base. As the fungus matures, it produces clusters of honey-colored mushrooms at the tree’s base. These mushrooms are not fused, but grow in a clump and have a characteristic ring on the stem below the cap. The cap is brownish at the top and produces a whitish spore at the bottom.

The shoestring mycelial rhizomorph may extend about 4 ft. to 5 ft. high on trunks of trees. By that time, the tree usually dies because of restricted water and nutrient translocation.

Armillaria sp. can enter the tree through fungal spores, rhizomorphs or by root graft. Once inside, it can cause rot or decay of roots eventually killing the tree. Later, rhizomorph grows out into the soil from infected plant issues.

To manage Armillaria root rot, detect the presence of infection as evidenced by the whitish rhizomorph. If a large portion of the trunk is infected, remove the tree promptly to avoid hazard. If a small area is infected, barktrace the infected tissue and let it air-dry. Remove excess soil and put it back before cold winter temperature occurs. There are no fungicides to manage this.

This disease is associated with stress. Reduce exposure to extremes in moisture and/or temperature. Often, excess moisture around the base of the trunk is a major predisposing factor. Keep the mulch cover 2-in. to 3-in. thick and about six inches away from the trunk to avoid damaging sensitive bark and cambium at the root collar area. Provide proper watering, mulching, fertilizing and pest management.

How does Mach 2 stack up?

How does Mach 2 perform compared to Merit for grub control?

— MICHIGAN

Mach 2 from Rohmid Corp. is a molt-accelerating compound that speeds up a grub’s molting process (see “Insecticides a la mode” story on page 66). Ingestion causes immature insects to undergo a premature molt and die. It affects the natural metamorphosis, and uses halofenozide as its active ingredient. It controls all white grubs, cutworms, sod webworms and armyworms and comes in spray, granular and fertilizer formulations for use on turfgrass. Rohmid claims that it will provide season-long control of grubs, and can give three to four weeks of residual control for surface feeding insects. One benefit of Mach 2 is that there is no need for immediate watering.

Because of its preventive and curative activity, it can be applied early like Merit, or later as a rescue curative treatment.

Mach 2 performed well for controlling sod webworm and black cutworm, performing equal to Sevin in university trials. Mach 2 applied in May before eggs are laid, or in June when eggs are laid, provided 100% control of European chafer in university trials. University of Nebraska scientists found that Mach 2 resulted in 79% control as compared to 58% control for Merit of European chafer when applied against second instar grubs. At this stage, grubs feed actively and can cause extensive damage. In this situation, consider using other insecticides such as Dylox or Oftanol.

Mach 2 is not known to be affected by pH hydrolysis or enhanced bacterial degradation. Merit and Mach 2 provide similar results for all white grub and turfgrass insect management. Read and follow label specifications for best results.

Manager of Research and Technical Development for the Davey Tree Expert Co., Kent, Ohio

SEND YOUR QUESTIONS TO: "Ask the Expert" Landscape Management; 7500 Old Oak Blvd.; Cleveland, OH 44130, or email: sgibson@advanstar.com. Please allow two to three months for an answer to appear.

www.landscapegroup.com / APRIL 2000 / LANDSCAPE MANAGEMENT
Deer-terrent
Benner's Gardens believes it has the answer to keeping pesky deer away from precious plants: a virtually invisible mesh barrier that easily attaches to trees or posts. David Benner, retired professor of ornamental horticulture, invented the eight-foot high polypropylene fence to protect his own plants, and has had positive results. The lightweight, high strength fencing can hardly be seen and doesn't detract from the appearance of the property. Fencing accessories include a nylon guide cable, high-tensile reinforcement wire, Stanley hogringer staple gun, corner post braces and a rabbit/groundhog barrier.
For more information contact Benner's Gardens at 800/753-4660 or www.bennersgardens.com / circle no. 250

Wide open grass maintenance
Land Pride says its new 35 Series 3-section rotary cutter is perfect for wide open grass maintenance. It features a 15,000 fpm blade tip speed for a clean cut in material up to 1 1/2-in. diameter. Standard stump jumpers and heavy-duty blades help operators handle uneven terrain. The three sections are hinged to allow operators to shape the cutter to the job. The cutter is also offered with 3-in. and 4-in. cutting capacity. The Land Pride flail mowers are designed to do everything from cut grass to shred prunings. The 20 Series flail mower offers a two-position hitch for offsetting the mower, enabling closer cutting along buildings, fences or roadsides. The 30 Series flail mower offers 3/16-in. deck material and uses a threaded rod to easily offset the hitch by nearly 8 inches. The 40 Series features heavy forged hammers, a precision balanced rotor and adjustable brush rake teeth on the rear.
For more information contact Land Pride at 785/820-8692 or www.landpride.com / circle no. 251

Hard workin' utility vehicle
E-Z-GO Textron's new workhorse ST 480 features an 800-lb. payload capacity, 48-in. load bed and a 16-hp., 4-cycle 480-cc twin cylinder Vanguard V-twin engine, allowing the vehicle to reach speeds of up to 17 mph. Multiple leaf spring suspension with hydraulic shock absorbers and self-compensating single reduction rack and pinion steering make it a comfy ride, too. Options include a sun canopy, all-weather enclosure, light bar with beacon, taillights and brake lights, turn signals with 4-way flasher, windshield kit, right and left locking glove box and an hour meter.
For more information contact E-Z-GO Textron at 706/798-4311 or www.ezgo.com / circle no. 252

Around a pond
Oly-Ola Sales has come out with Pond Liner edging designed to hold liners used for pond and water gardens permanently in place. The Pond Liner edging, made of strong, black vinyl, provides a natural looking border, allows plant materials or turf to grow up to the edge of a pond and provides landscape contractors with the versatility to install attractive ponds with or without rock borders.
For more information contact Oly-Ola at 800/334-4647 or www.olyola.com / circle no. 253

Need a lift?
The Extractor mechanical fork features five interchangeable rudder-guided tines, equipment with soil retaining blades and fins, quick-connect tine interlocking system and alloyed teeth. Application includes B&B, shrub, tree, rock and material removal, digging and loading units currently for all skid steers, 3-pt. hitches and ASV.
For more information contact Extractor CDM Inc. at 509/725-8443 / circle no. 254

Grow, turf, grow
Grow turf to the max with Novartis' new Primo Maxx, a turf growth regulator that eliminates odor while providing the same performance of the traditional Primo Liquid. Primo Maxx features a microemulsion concentrate formulation that contains no petroleum solvents, mixes clear in water, is odorless and won't clog screens. Because of its small particle size — 0.1 micron — it mixes completely and will not settle out in a spray tank. Primo Maxx is available in both 2x1 gal. cases and a 10-gal. LinkPak container.
For more information contact Novartis at 1-800-395-TURF or www.cp.novartis.com / circle no. 255
See the light
Tired of trying to find a good deck light for his customers, Garry Ballard, president of North Oaks, decided to come up with his own. His lights are low voltage ones for decks, docks, patios and gardens. Features include cast aluminum body, copper vein color power coat to match decks, 60-in. wire leads and Copper top on Postmount model. North Oaks claims that one light illuminates 50 to 60 sq. ft.
For more information contact North Oaks at 888/636-2277 or www.northoaks.com / circle no. 256

Spread anything
The JRCO stainless steel frame electric broadcast spreader fits commercial riding and walk-behind mowers and is available with either a stainless steel foot-operated gate or push/pull cable. The polyethylene hopper has a capacity of 2.2 cu. ft. or 130 lbs. It improves productivity with increased ground speed and a controlled 5 to 24-ft. spread. The heavy-duty broadcaster is ideal for spreading all types of granular or pelletized fertilizer, seed, fire ant bait and ice melting products.
For more information contact JRCO at 800/966-8442 / circle no. 257

Super surfer
Great Dane Power Equipment says its Super Surfer zero-turn stand-on mower stands out from the crowd because the platform, which is moved forward from behind the rear wheels, results in a dramatic effect on the center of gravity, improved operator comfort and hill climbing ability. Other features include a floating deck and easy height of cut adjustments, light and compact design, top speed of 10 mph, Hydro-Gear pumps, 20-in. rear tires, reverse speed adjustments, wheel motors with 20% more torque and direct access for blade change. The Super Surfer is available in 36-, 48-, 52- and 61-in. cutter decks and engine options up to 23 hp.
For more information contact Great Dane at 812/246-8770 or circle no. 258

Rugged loaders
Four Mustang 2000 Series skid-steer loaders boast SAE load ratings ranging from 1,300 to continued on page 85
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products

continued from page 83
2,100 lbs. Mustang claims that the loaders' axle torque and breakout force are unmatched in the industry. Mustang's Load Sensing hydraulic system delivers the precise amount of power needed to any attachment.

For more information contact Mustang at 507/451-7112 / circle no. 259

Portable power wash

The Cyclonator, a modular, recycling, high-pressure wash rack system, provides a cost effective means of cleaning equipment while preventing ground water contamination and reducing water/sewage costs. It can be used indoors or outdoors and set-up or taken down in less than an hour. It has no special plumbing or electrical hook-ups and requires no digging or concrete work. It comes with wash racks, filtration system and fresh-water holding tank.

For more information contact Riveer Company at 888/857-7304 / circle no. 260

Big machine performance

Thomas Equipment's new T-245 HDK skid steer loader combines big machine strength and power. It has a 2,400-lb. lifting capacity and an 87-net-hp Kubota turbocharged diesel engine. Two 3-in. bucket cylinders are designed to provide high front-end strength and a breakout force of more than 6,970 lbs. Sound insulation keeps noise at less than 85 dBA inside the cab. "Quick-tach" attachment mounting makes utilizing a variety of Thomas attachments a snap.

For more information contact Thomas Equipment at 800/561-5623 / circle no. 261

Sawdust to sawdust

Whoever thought a chipper could be worldly? Well, that's exactly what Vermeer is saying its new BC1000 brush chipper is because it brings together the best European and American design features. It's more quiet, and, at 10x17 in. wide, it has the largest feed opening in its class. Any debris up to 10 in. in diameter is at this chipper's mercy.

For more information contact Vermeer at 888/VERMEER or www.vermeer.com / circle no. 262

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