

ask the expert

BY BALAKRISHNA RAO

Dying holly plants

What would cause twig dieback and blackish leaves on holly plants? The black discoloration is also found on twigs.

Some branches have small, raised bumps — probably related to some fungus.

What are these and how do we manage?

— MARYLAND

Twig dieback and discoloration on hollies may be caused by several fungi, such as *Phytophthora* sp., canker-causing fungi like *Phomopsis* sp., or *Gloeosporium* sp.

If the dieback is caused by *Phytophthora* sp., you should not see any fruiting bodies of the fungus on branches. The “raised bumps” are most likely the fruiting bodies of a canker-causing fungi.

Based on the description you have provided, the problem is probably related to *Phomopsis* sp. It is also possible that a given plant may be infected by several different opportunistic fungal pathogens.

For positive diagnosis, send plant tissue samples to a diagnostic clinic. Then, based on findings, provide corrective treatments as needed.

Prune and discard affected plant parts during dry periods. Disinfect pruning tools between cuts to minimize disease spread. Provide proper watering, mulching, fertilizing and pest management as needed to help improve plant health.

Dutch elm disease

I have four trees with Dutch elm disease (DED). What should I do? Can you help?

— ILLINOIS

The first step in disease management is proper diagnosis of the problem. If you suspect DED, look for characteristic field symptoms such as flagging in the crown and discoloration in the xylem. For further confirmation, send representative samples to private or state diagnostic laboratories. Based on the observations and recommendations, further action is needed.

Once the disease is confirmed as DED, the severity of the disease as evidenced by dieback and flagging symptoms in the crown needs to be determined. If it is less than 5% crown dieback, there is a good chance to prevent disease spread by proper sanitation and possible therapeutic fungicide treatments. Sanitation includes scouting and selective removal of diseased branches 10 ft. below the discoloration in the xylem. In some situations, this may require the removal of large branches. This sanitation and removal of infected tissue works well, provided the disease starts within the crown by bark beetle feeding in the branch crotch areas. However, if the disease is transmitted and spread by root graft between a diseased tree and a healthy tree, the removal of infected branches may not be effective because the fungus is systemic, moving upward inside the plant xylem tissue.

Another option is to inject trees having 5% or less crown symptoms with Arbotect or Alamo fungicides. These fungicides can provide two- to three-year protection if done correctly. Reports also indicate that if systemic fungicides are in the plants, the treatment for bark beetles using insecticides may not be needed.

The healthy trees within 40 ft. of diseased trees should be protected from root

graft transmission of pathogens by trenching to disrupt root grafts. In the past, Vapam fumigant treatment was used to disrupt root grafts, but it is no longer available for that purpose.

Valuable susceptible elms should be monitored periodically for the presence of DED. If the trees display more than 20% crown symptoms, it is difficult to protect them from DED. Ideally, the trees should be removed promptly to minimize disease spread to healthy trees. DED can be best managed by the proactive preventive approach. This includes periodic inspection of elms for flagging symptoms, prompt removal of infected plant parts, and, where feasible, fungicide treatments on a preventive basis once every three years. If the disease is detected, provide trenching as needed to prevent root grafts. Read and follow label specifications for best results.

Finding tree grates

Could you recommend a manufacturer of cast iron tree grates? A job requires them and I'm at a loss for a supplier.

— CALIFORNIA

Contact the following companies who reportedly make cast iron tree grates:

- Neenah Foundry, 800/423-8116
- M.H. Powell, 323/887-0037
- East Jordan Iron Works, 800/692-3549.



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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.