

THE EXTENSION LINE

Bob Mugaas of the University of Minnesota Extension Service is a regular contributor to *Hole Holes*. As Hennepin County Extension Agent, Mr. Mugaas compiles various articles related to the golf field for our information. Bob is an excellent source for answers to many questions on horticultural problems. He may be reached at 612/542-1420. Written requests should be sent to:

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This month's articles cover Nectria Canker and the Honeylocust tree, Bronze Birch Borer, Concern on Pesticides.

NECTRIA CANKER CAN DAMAGE HONEYLOCUST

by Cynthia Ash
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Honeylocusts are beautiful trees which many homeowners are adding to their landscape. Unfortunately, a disease called nectria canker is causing loss of branches or entire trees. The nectria fungus invades

wounds--many of which occur during planting--and continues to invade and kill tissues as long as the tree is under stress. Stress can be caused by transplanting, lack of root establishment, improper care, and adverse environmental or soil conditions.

Several steps can be taken to prevent nectria canker damage to honeylocusts. First, plant fully hardy selections in good locations. Before purchasing the tree check the trunk for mechanical damage. Avoid purchasing damaged trees. Plant the tree properly and encourage its growth and establishment by regular watering. A wood chip mulch around the tree's base helps retain moisture, reduces competition from the grass and keeps lawn mowers and weed whips away from the trunk.

BRONZE BIRCH BORER DAMAGE IS EVIDENT NOW

by Jeffrey D. Hahan
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Birch trees under attack by the bronze birch borer should be exhibiting symptoms now. Branch dieback, due to

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larvae tunneling and girdling the inner bark of the tree, is usually the first symptom. Raised ridges in the bark due to the girdling and D-shaped exit holes may be visible to indicate bronze birch borer activity.

Bronze birch borers only survive in weakened or stressed birch. Birch, native to the northern forests of Minnesota, enjoy cool, shaded conditions. However, when planted in the urban environment, birch often are placed in the open with little or no ground cover to protect their shallow roots. As a result, the birch becomes weakened and loses vigor. Water once a week if there is not sufficient rainfall. Add a layer of mulch around the tree under the canopy to reduce moisture loss and help keep the soil temperature cool. Older trees on poor soil should be fertilized in the spring every two to three years.

Small branches that have died should be pruned in August, cutting the limb two feet beyond the point of damage to ensure all bronze birch borer larvae are taken out. August is the best time to do this because the adults are not laying eggs and the wound heals better during reduced sap flow at that time. If the damage is in a large limb or trunk, the tree is probably too far gone to be helped.

There is no effective insecticidal control this late in the season. Professional applicators could have applied ben-

diocarb (Turcam) starting the end of May. These applications will not protect the birch if it remains unhealthy.

U of M GROUP ADDRESSES PUBLIC CONCERN ON PESTICIDES

Too much of almost anything -- table salt, aspirin, water, vitamin D -- can be harmful to humans.

But recent public alarm over pesticide residues in the food supply and what this could be doing to the health of children and adults has more than 20 people involved at the University of Minnesota. They are taking time from other duties to collect information and ponder all sides of the residue problem. Their group is informally called: Pesticide Education: Residue vs. Risk.

Jim Cink, Assistant Entomologist with the Minnesota Extension Service, is coordinating these efforts. Cink's group is putting together three brief publications to explain dosages and chemicals to a public that Cink says is "chemically illiterate." The publications will cover pesticides and their toxicity, establishing food tolerances and pesticide risk perception. Cink emphasizes, "The group's pesticide education project is not out to promote or con-

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