

OAK PROBLEMS

From **Dial-U Highlights**
Minnesota Extension Service
University of Minnesota

Several calls have come in concerning browning and defoliation of entire or significant portions of oak trees. The major concern is whether or not the trees have oak wilt. Oak wilt symptoms on red oaks include rapid wilting of the affected trees beginning at the top of the tree. The leaves wilt from the tips to the base and fallen leaves are likely to be brown around the tip and green at the base. On cross-sections of affected branches, brown discoloration of the springwood vessels and brown streaking on the outside of the wood may also be observed. White oaks may survive for several years with uniformly brown leaves appearing during the growing season and affected branches eventually dying back one or two at a time.

A similar pattern of symptoms may occur on drought stressed oaks infected with Armillaria root rot and colonized by two-lined chestnut borer. Oak trees that are killed by this condition decline over a several week period. Signs of Armillaria infection include development of white mycelial fans and black, shoe string-like rhizomorphs under the bark at the base of the trunk. Honey-colored mushrooms often develop in close proximity to the tree. If colonization of the borer has occurred, its galleries can also be seen under the bark of large branches and main trunk.

Two-lined chestnut borer (T-LCB) damage is apparent in red, white, and bur oaks, and also ironwood trees. They first attack the crown; dieback can resemble oak wilt. One way to differentiate between the two is to check dead branches for meandering tunnels; this indicates attack by T-LCB. Unhealthy trees are most likely to be attacked and can be killed by this insect. Prune infested branches two feet into healthy tissue to remove the borer. Remove trees that have been killed by T-LCB. Watering and fertilizing can help increase the vigor of the tree and help it to tolerate this insect.

POWDERY MILDEW CAN WREAK HAVOC

by **Cynthia Ash**
Asst. Extension Specialist
Minnesota Extension Service
University of Minnesota

The ever present powdery mildew fungi have been wreaking havoc in many gardens and landscapes this summer producing gray to white powdery appearing structures of

the leaves. Severe infections can result in leaf puckering, poor growth, and fewer flowers.

Unlike other fungal diseases which need prolonged periods of wet foliage to infect the plant and cause disease, the mildew fungi only need occasional periods of high humidity. When this happens the fungus grows over the surface of the leaf and sinks little structures into the leaf to derive nourishment. Powdery mildew seldom seriously harms the numerous types of plants it infects but it can reduce photosynthesis and weaken the plant.

To prevent problems with powdery mildew avoid planting susceptible plants in heavily landscaped areas. In existing landscapes pruning or replacement of plant materials to increase air circulation and sunlight penetration will help. Avoid over-crowding. Use plant materials adapted to the landscape areas present. Water early in the day and at the base of the plant. Fungicides are available for some plants but are only a temporary cure.

ILLUSTRATED POSTER ON TWO TEE SYSTEM FOR WOMEN OFFERED

Recognizing the tremendous influx of women into the golfing ranks, the American Society of Golf Course Architects is offering an illustrated poster that explains the design philosophy behind the two tee system for women.

Alice Dye, the only woman member of the Society and an amateur golf champion, has authored the material on the two tee system. She explains the current research, why the system is gaining momentum, how to create new forward tees, and the cost of construction.

Illustrations show exactly how the two tee system should be implemented, both on existing courses and new courses. "Men have a choice of playing from different teeing grounds to accommodate their various abilities," Dye points out. "Women have no choice. It's like asking them all to wear the same dress size. Golf course personnel who recognize the fact that women make up a main source of weekday golf need to assess their yardages to create a manageable course for women golfers.

Addition of new forward tees to the existing tees use by women provides a challenging, yet pleasurable golfing experience for both the low handicap female golfer and for those players who are not as long off the tee."

To obtain a copy of this illustrated two tee system for women, send \$5.00 check to the American Society of golf course Architects, 221 N. LaSalle St., Chicago, IL 60601.