(Pythium Cont'd.)

In addition to the aforementioned, temperatures usually need to be high although Pythium may also occur during wet, cool, and even cold weather. It is not so easily identified and damage is not as readily noticed. Damage is most severe when high temperatures are coupled with high levels of moisture and high levels of nitrogen.

SYMPTOMS

Visually the easiest symptoms to spot are the matted "grease spots" of collapsed plants. These spots often have a white cottony mycelium that remains active and visible so long as moisture is readily available. This mycelium can be and often is spread by foot traffic, hoses, mowers, and water going down natural drainage channels. This produces the streaked appearance so often shown as examples of Pythium damage. These diseases patches can coalesce and form large sections of devastated turf in less than twenty-four years — leaving dead turf areas of light brown or tan.

The size of these areas can be limited by the drying effect of a bright sun, a strong wind, cooler temperatures, or a change in humidity; any of which can cause the cessation of Pythium blight activity. Since as a saphrophyte, Pythium is "always there", a reoccurance of the correct prime factors may again trigger the disease activity at any time.

CONTROL

Although there is no good substitute for good cultural practices, these alone will not prevent incidences of Pythium blight. A preventative fungicide program is absolutely essential During periods of hot, humid weather the disease acts too swiftly, and when diagnosed, too often the damage has been done. Timing and anticipation are very important when scheduling preventative fungicide applications. Constant monitoring of the environmental factors will aid the decision making process for initiation of preventative fungicide spray applications. Briefly these factors include: Day temps over 85°F; Night temps over 70°F; High moisture and humidity; Lush, nitrogen rich turf; Poor air circulation. Because of our geographic location (close to a river, on a flat, poorly drained plain; heavy clay soil) it is not uncommon for Pythium to be seen several days or even weeks before some other area clubs.

From past experience we have learned to begin a preventative Pythium fungicide program for greens and tees in June and continue on a weekly basis until late August. Each week these areas receive contact fungicide treatments (usually 4oz/m chloroneb). The fairways receive two or three applications of the newer systemic Pythium control fungicides - more if necessary.

These recently developed systemic type Pythium control fungicides have fostered enormous interest, for both their longevity (up to 21 day control) and the potential for development of fungicide resistence. While a few rumblings have been heard regarding resistence of Pythium to these systemics (metalaxyl in particular) there is no evidence of Pythium resistence to it or propamocarb.

While metalaxyl and propamocarb are classified as systemics, their modes of action within the plant are different:

METALAXYL	PROPAMOCARB
site specific	affects cell membrane
emulsifiable concentrate	water soluble

The simple fact that these are different gives the wonderful op-

(cont'd page 16)

Trying to Do the Job Alone

(Response to Insurance Company)
Submitted by Paul Voykin

I am writing in response to your request for additional information. In block number 8 of the accident form, I put "trying to do the job alone" as the cause of my accident.

You said in your letter that I should explain more fully, and I trust the following details will be sufficient.

I am a brick layer by trade. On the day of the accident I was working alone on the roof of a new 6-story building. When I completed my work, I found that I had about 500 pounds of bricks left over. Rather than carry the bricks down by hand, I decided to lower them in a barrel by using a pully which fortunately was attached to the side of the building at the 6th floor. Securing the rope at the ground level, I went up to the roof, swung the barrel out, and loaded the bricks into it. Then I went back to the ground and untied the rope, holding it lightly to insure a slow descent of 500 pounds of bricks.

You will note in block number 11 of the accident report that I weigh 135 pounds. Due to my surprise at being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go of the rope. Needless to say, I proceeded at a rather rapid rate up the side of the building. In the vicinity of the 3rd floor, I met the barrel coming down. This explains the fractured skull, and broken collar bone. Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles into the pulley. Fortunately, by this time I had regained my presence of mind, I was able to hold tightly to the rope, in spite of my pain.

At approximately the same time, however, the barrel of bricks hit the ground and the bottom fell out of the barrel. Devoid of the weight of bricks, the barrel then weighed approximately 50 pounds. I refer you again to my weight in block 11.

As you might imagine, I began a rapid descent down the side of the building. In the vicinity of the 3rd floor, I met the barrel coming up. This accounts for my 2 fractured ankles, and the laceration of my legs, and lower body area. The encounter with the barrel slowed me enough to lessen my injuries when I fell onto the pile of bricks, and fortunately only 3 vertebrae were cracked.

I am sorry to report, however, that as I lay there on the bricks in pain, unable to stand in watching the empty barrel 6 stories above me ... I again lost my presence of mind and let go of the rope. The empty barrel weighed more than the rope, so it came back down on me, and broke both my legs.

I hope I have furnished the information you have requested.

(1983/84 Weather Cont'd.)

I hope that all of you in the Chicago area will come through with flying colors this summer with respect to the trees and ornamentals on your properties. At this point in time, there is very little that can be done to change the situation. However, on those plants that are somewhat marginal in health, a light fertilization (from ½ - ¾ pound nitrogen per 1,000 square feet of canopy area) as soon as possible, plus close attention to maintaining adequate soil moisture, may pull them through.

Good Luck!

Midwest Breezes

Up Coming Events - Mark Your Calendar

July 5-8 — Western Open at Butler National
July 9th — Midwest Meeting * Seniors Day * held at Sportsman C.C.
July 25 — Illinois Turfgrass Research Field Day at Urbana
August 1 — Illinois Landscape Contractors Association 25th Anniversary Summer Field Day at Synnestvedt's Burr Oak Nursery, Round Lake Illinois. Time 8:30 to 4:00 p.m.
August 7 — Midwest Institute of Park Executives Equipment Show at Meadowhill Park, Northbrook, IL. Rain date August 14th. Questions: Call Mike Schiller at 291-2989.
August 22 — Midwest Meeting at Riverside Golf Club.
September 10 — Midwest Meeting at Turnberry Country Club.
September 24 — ITF Golf Day at Itasca C.C.

University of Illinois at Urbana-Champaign

COLLEGE OF AGRICULTURE · OFFICE OF THE DEAN

101 Mumford Hall
1301 West Gregory Drive
Urbana, IL 61801

Telephone: (217) 333-0460
Telex: INTAG URBA 206957

May 31, 1984

Mr. Don Gerber
922 Webster
Wheaton, IL 60187

Dear Mr. Gerber:

It is a pleasure for me to provide information for you regarding the use of the memorial funds in your father's name.

The Ray Gerber Memorial Funds contributed to the Illinois Turfgrass Foundation will be used to support the on-going research programs in the area of turfgrass science in the Departments of Horticulture and Plant Pathology at the University of Illinois College of Agriculture. These funds, combined with additional monies from the Illinois Turfgrass Foundation, will allow the College of Agriculture to support a graduate student conducting this research.

The College of Agriculture is indeed grateful to the family and friends of Ray Gerber, and to the Illinois Turfgrass Foundation for this generous pledge of support. Private support of research is now recognized as a vital supplement to State and Federal funding sources. The demand for the results of College of Agriculture research is far greater than the amount of funds currently available.

As a result of this generous pledge, which provides $10,000 over a ten-year period, the Illinois Turfgrass Foundation will be recognized as a member of the Presidents Council of the University of Illinois. This honor organization recognizes those contributors making a significant financial commitment to the programs of the University of Illinois.

Mr. Gerber, we are grateful indeed, for the support provided to the College of Agriculture through the Ray Gerber Memorial Funds. We hope that you and your family will accept our invitation to visit us at your convenience.

With best wishes.

Sincerely,

Lynette Marshall

Lynette Marshall
Director of Resource Development

John Potthoff is looking for a tractor tires size 11-38 6 ply. If you happen to have any, give John a call at (815) 894-2137.

Ed Fischer and the staff at Old Elm did a bang-up job of hosting our last Midwest meeting, they are to be congratulated! The course was in excellent shape, the greens were slick, the weather was great, the foods and drinks were outstanding. The food and drinks were provided by some of our very best friends, and they are: Chicago Toro, Art Clesen Company, Coursigns, H & E Sod, Nels Johnson Tree Trimming, Roseman Equipment, Rowland Equipment Inc. and Turf Products. For those of you who played golf, ate and drank, be sure to thank these wonderful people for making our day so very nice.

Demie Moore Powell was the educational speaker at the June meeting and she spoke of course on wetting agents. The talk was very informative and she was able to answer a few questions from the floor. Mrs. Powell represents Aquatrols Corporation of America, Inc.

Here are some Winners that played at Old Elm on June 4th. The golf event was a four-man best ball.

Net Score 56 — Hal Laman, John Maniscalso, Richard Daley, and Jeff Smith.
Net Score 57 — Ed Witkowski, Tom Morgensen, Rick Krogen, and Phil Bersin.
Net Score 58 — Bob Breen, Bob Breen, Jr., Bill Leith, and Ray Schei

The Elmer Bertucci Trophy which was awarded to the individual low net 60 years+ was won by Bob Williams who shot a net 74.

We at Old Elm just finished hosting the June 1984, meeting of the M.A.G.C.S., and a very successful meeting at that. Everyone expressed their appreciation of the fine day which included a lunch, beer and soft drinks, cocktails, and light hors d'oeuvres all provided by some of our suppliers, and of course the hospitality of Old Elm, and a game of golf. Over 100 members took part in the days activities.

Now for a few questions. Where have some of our members been for the past couple of years? Why couldn't they stay for dinner? I couldn't believe how many members there are that I have never seen before. Yes, I don't know everyone, and I don't think that I ever will, but I recognize most. The younger Superintendents and Assistants I don't know, I hope to, but I do recognize them. I can also understand that sometimes there are conflicts so that staying for dinner is impossible, but there are other excuses that aren't acceptable.

My feeling is that one should be proud of the organization he belongs to, and that one should support the M.A.G.C.S. the entire year, not just when golf is being played at a special place. I hope that I see some of these faces sooner than that next special place.

Again, thank you for coming to Old Elm, it was a pleasure to have you here.

Ed Fischer, C.G.C.S.

Blessed is the man who is too busy to worry in the day and too tired to lie awake at night.

Jemsek Fund Established

The Illinois Section of the PGA has established a Joe Jemsek Scholarship fund, in honor of the longtime supporter of golf in the Chicago area.


JEMSEK

Jemsek won the National Golf Foundation's Herb Graffis Award in 1977. He's been a PGA professional for 40 years and a course owner-operator for longer than that.

Ferris State maintains a program whereby graduates receive a business degree while completing their requirements for membership in the PGA. The first scholarship will be awarded this fall.

Credit - "The Wedge", 6/84

GCSAA News

The Golf Course Superintendents Association of America and the United States Golf Association have joined together in a joint effort to raise funds to support turfgrass research.

GCSAA supports the unprecendented research project initiated by USGA to develop and produce quality golf turfgrass that will thrive with minimum water and maintenance. GCSAA President James W. Timmerman, in a message to superintendents, said, "Accelerated research leading to the development of grasses that are drought tolerant, less costly and easier to maintain are crucial to golf's survival."

The first phace of this research is being implemented in 1984 through a $332,000 commitment by the USGA. Over the next ten years, $5 million will be needed to accomplish this much needed research.

GCSAA and USGA are jointly urging their members and all others interested in the future of golf to contribute to this research to insure that green golf courses and the game of golf will always be a part of our lives.

"It is really important to us in working with GCSAA on this joint project. It is the greatest cooperative effort ever between USGA and GCSAA — it is truly a new era. The joint project is important, not only to us, but the cementing force is what it will bring to the future of golf," so said William H. Bengeyfield, National Director, USGA Green Section.

The members of the Baltusrol Golf Club, Springfield, NJ, felt so strongly about this research and fund raising effort that each member will donate $2.00 annually to the USGA Turfgrass Research Program. A jointly-signed letter by GCSAA President James W. Timmerman and USGA President James R. Hand has been sent to all golf clubs via the golf course superintendent urging each to consider donating funds to this vital research program in much the same manner as the Baltusrol Golf Club.

The USGA Green Section's Turfgrass Research Committee developed the plans and recommendations for this Turfgrass Research Program. GCSAA's Associate Executive Director James C. Prusa, CGCS, is a member of this committee.

Individuals or organizations interested in supporting turfgrass research may wish to contact Mr. Don Spencer, USGA Golf House, Far Hills, NJ 07931 for further details on this joint effort.

National Golf Foundation 1983 Golfer Profile Survey

NORTH PALM BEACH, Fla. — The typical American golfer is 48 years old, reports an average score of 87, lives in a household with an annual median income of $37,000 and spends over $500 a year on green fees and golf equipment, according to the National Golf Foundation's 1983 Golfer Profile Survey.

"The survey reveals some interesting facts and figures on golfers and their golfing habits," reports Sandra Eriksson, NGF director of research. "Overall, it indicates that American golfers are more mature, affluent and better educated than the population as a whole."

The survey also covered the number of rounds played, reasons for taking up the game, percentage of rounds using a golf car and clothing and golf shoe purchases.

(Turf-Cal Cont'd.)

before Turf-Cal application to reduce heavy thatch. Verticut to make room for new growth. Bring the soil to surface to favor new seedlings. Avoid overseeding in heavy thatch. Aerify yearly as necessary to keep thatch from accumulating.

5. **Overseed as needed.** Repeat introduction of seed of the desired cultivars until uniform stand is produced. Seed 5-20 pounds per acre when conditions are suitable. Repair worn areas and resod critical areas. Use caution in treating newly seeded areas. Use lower recommended rates of Turf-Cal on new seedings and keep root zone moist.

6. **Apply Turf-Cal in late summer or early fall.** Use Turf-Cal before September 15th when possible because days become shorter and light intensity diminishes. This encourages cool season grasses and new seedlings to fill in during fall, winter and spring. Apply uniformly. Avoid skips and overlaps.

7. **Maintain effective soil arsenic levels.** Continue program by applying supplemental Turf-Cal at maintenance rates annually in the fall.

8. **Emergency phosphorus supplement:** If unusual conditions indicate emergency correction is needed, weakened **Poa annua** can be improved by the application of 1/8 to 1/4 pound per 1,000 sq. ft. of soluble phosphorus as a liquid fertilizer. Do not use more than needed. Avoid this procedure if possible.

9. **Eliminate all plant material.** Turf areas composed of high percentage of **Poa annua** may be killed with Round-up. Cultivate and reseed to desired cultivars. The new stand of grass may be protected by use of Turf-Cal.

10. **Special note on greens.** Use lower rates on greens where sand predominates in the root zone. The base exchange capacity is low on sand greens.

Equipment should be carefully calebrated; turf managers should understand the limitations, the requirements and need for continuity to successfully rid **Poa annua** and establish desirable grasses.

The elimination of weedy grasses and the establishment of fine turf requires a knowledgeable, dedicated superintendent who communicates effectively with his membership.

(Pythium Cont'd.)

portunity to interchange these fungicides. For instance, use of metalaxyl in early July followed by an application of propamocarb 2-3 weeks later in a preventative fungicide program would tend to elude any possible Pythium resistence to either fungicide.

Managing Pythium involves comprehension of a series of variables, both cultural and physical. Some are within the control of the Golf Course Superintendent and he can help himself maintain a high level of Pythium management with a strong awareness of those variables bolstered with an active Pythium preventative fungicide program. The blight strikes too swiftly and destructively to ignore it's consequences.

I'll leave you with a word ... ANTICIPATE.

Sulfur Reduces Fusarium Patch in Practice

by Roy L. Goss

A number of golf course superintendents have reported a significant reduction in the use of fungicides after 2 to 3 years or more on slightly accelerated sulfur programs. The superintendents reporting success have applied 3-6 lb. of elemental sulfur per 1000 ft_2 per year in addition to some other sources of sulfate sulfur.

Your major sulfur applications should be made between April and October when soil temperatures can be expected to be high enough for bacterial activity. It is not advisable to apply significant amounts of sulfur when soil temperatures are below 45°F, and especially if soils are poorly drained. It is possible that phytotoxic by-products can be formed due to incomplete conversion of elemental sulfur to the sulfate ion form.

Sulfur is an extremely useful tool in our turf management programs, but like any other nutrient, we need to use good judgment in its application.

Credit: Northwest Turfgrass Topics

Gypsy Moth Damage Unlikely This Year

By James A. Fizzell

In spite of all the publicity about Gypsy moth in Chicagoland you won't need to spray your trees this spring. Entomologists have found too few caterpillars to cause much damage, so homeowner control measures are not needed.

The Illinois Department of Agriculture has located a few scattered Gypsy moth infestations in northeastern Illinois. Efforts to eradicate the small infestations last year alerted the public to the damaging potential of these insects. Area wide control efforts last year resulted in only a few adult male moths being caught from those infestations. They represent a relatively small number of insects compared to outbreaks in other parts of the U.S. In the northeastern U.S., Gypsy moths are present in high enough numbers to quickly eat all of the leaves off of the trees. Evergreens are killed by a single defoliation. Deciduous trees will usually put out new leaves, but several years of damage weaken the trees so that they are killed by borers or diseases.

There are two other kinds of caterpillars feeding in trees right now. They are the inchworm (cankerworms) and the Eastern tent caterpillars which makes the triangular webs in trees.

Gypsy moths feed in large groups but do not live in the silk tents. The caterpillars are hairy and have two rows of conspicuous red and blue dots on their backs. They eat the leaves of most trees, particularly oaks.

Homeowners in infected areas here are concerned that their trees will become harmed by these insects. Although the Gypsy moth may be present, its numbers are not large enough to cause severe feeding damage. So you will not need to use insecticide sprays or other control measures to protect your trees this summer.

New infestations of Gypsy moth are usually carried into Illinois from infested areas in the northeastern U.S. by way of household moves. If new residents in your area are from New England or other infested parts of the Northeast, notify the Illinois Department of Agriculture at Oak Brook. Their inspections of outdoor furniture, firewood, and vehicles are likely to find and eliminate new infestations before they get established.

Leaf Scorch on Trees and Shrubs

James A. Fizzell, Sr. Extension Adviser
Horticulture

According to Lori Wesley, Summer Assistant in Horticulture with the University of Illinois in Cook County, leaf scorch is a problem which frequently develops on trees and shrubs in July and August. leaves dry and turn brown at the margins, progressing inward toward the midvein. Leaf scorch is commonly seen on sugar and Norway maples, ash, elm and oak.

Scorch occurs in hot, dry weather particularly if it is windy. Under these conditions, large amounts of water evaporate from the leaf surface and the roots are unable to supply enough water to compensate for this loss. As a result, some leaf tissue dies to protect the plant from excess water loss.

Trees under stress or trees that have been newly transplanted are more likely to be affected by scorch than vigorously growing trees.

Adverse environmental conditions such as a dry, windy exposure, previous disease or insect damage, excessive fill over the roots and injury due to construction, predispose the trees to leaf scorch. Often scorch only occurs on the south or west side of the tree where wind and light intensity are the greatest.

In abnormally wet springs, trees produce an unusually large number of leaves. Leaf scorch is most severe during those summers following wet springs.

Trees affected by scorch may drop leaves in late summer or early fall, but they rarely die.

During dry periods, trees should be watered every 4 - 6 weeks. Let the hose trickle at the base of the tree until the soil is well soaked. This is particularly important for newly planted trees. It may be helpful to prune weak branches to obtain a better balance between top and root growth.

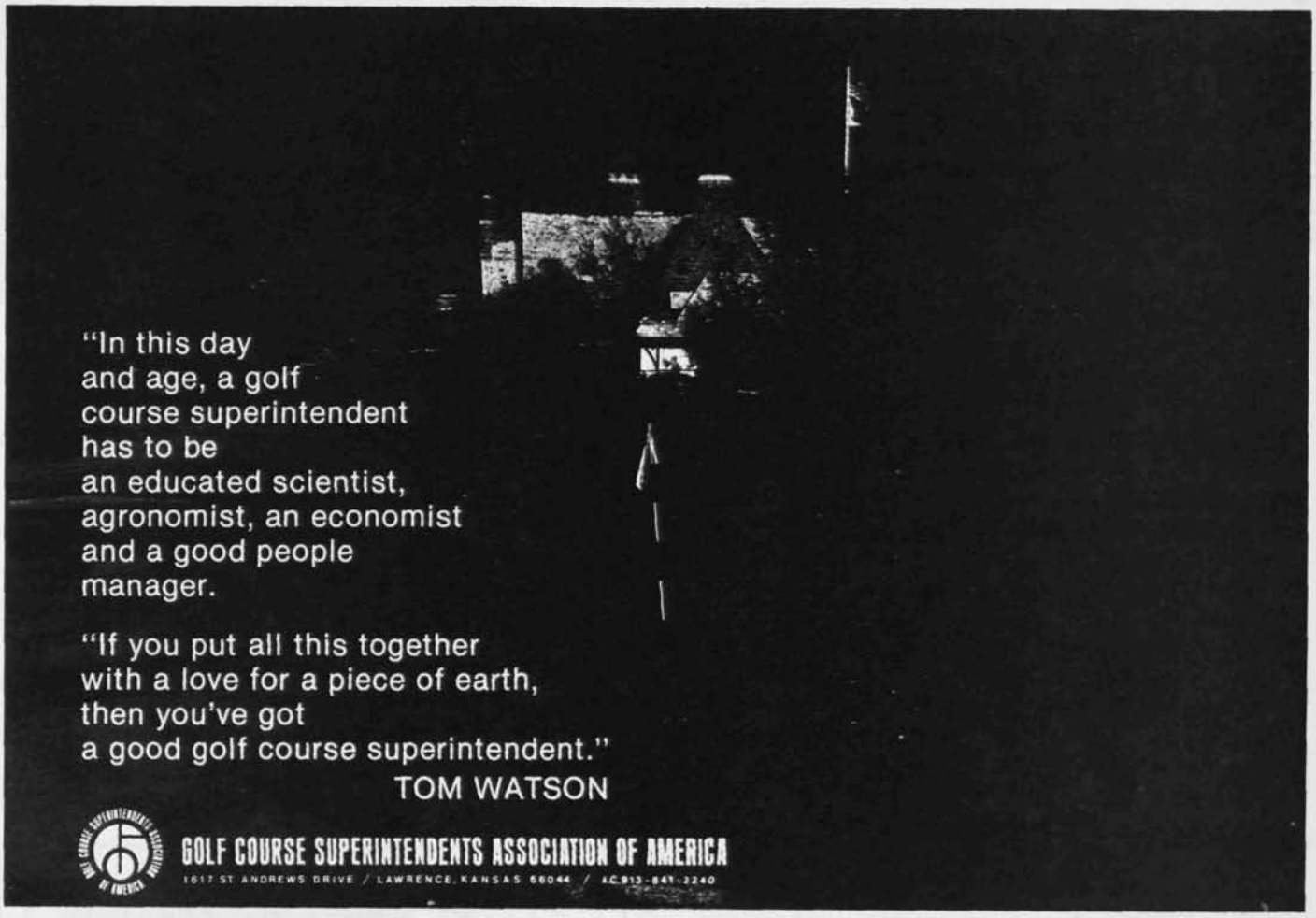
Guidelines Available for Selecting Grasses for Golf Course Use

Dr. Richard Hurley, Director of Research for Lofts Inc., Bound Brook, New Jersey has compiled an informative paper entitled "Selecting Grasses for Golf Course Use in Cool Season Climates." Included are guidelines for the selection of turf grasses for putting greens, roughs, fairways, tees, etc. on municipal or resort courses. A section on the use of ornamental grasses is also included. Please contact Karen Ciosek for free copies: Lofts Inc., P. O. Box 146, Bound Brook, NJ 08805 (201) 560-1590.

"Fire Cracker Time"

Kenneth R. Zanzig

The Fourth of July and Fire Cracker Time,
Are always synonymous.
Summer conditions, Heat, Humidity, Insects, and Fungi,
Sometimes set Fire Cracker Greens, in spite of Us.
While We enjoy Summer's charade, with vigor,
We hope Our expertise, prevents setting off,
Nature's hair trigger.



Diagnosing Nutritional Disorders

Physiological disorders of trees and shrubs (those not caused by insects or diseases) include mechanical damage, weather related injury, soil drainage problems, and nutritional disorders. If insects and diseases have been eliminated as possible causes of the disorder, then look to soil nutrients. Deficient, excessive, or unbalanced soil nutrients may be at fault. Nutrient problems generally develop slowly. They can affect all the plants of one species in a given location, although a different species may not react the same.

For instance, pin oak in an alkaline soil may become chlorotic, while other oaks, maples, etc., appear to be unaffected.

The following table describes symptoms associated with nutrient excesses or deficiencies. Keep in mind that the plant's symptoms may indicate either a true soil imbalance, or a condition of inhibited or enhanced nutrient uptake. Soil testing and tissue analyses may be needed to verify the physical symptoms.

Transplanted stock stunted, growth uneven:
low N, P, Ca, Mg; Excess Ammonia, excess total soluble salts.

Leaves smaller than normal:
low Mn; excess Cu, Mn.

Leaves chlorotic between veins, veins green:
low Fe.

Leaves chlorotic between veins, small veins yellow, large veins green:
low Mn, Zn, Mo.

Leaves chlorotic between veins; some veins yellow:
low N, Mg.

Youngest leaves chlorotic:
low Ca, S, Fe, Mn, B.

Oldest leaves have necrotic spots:
low P, K, Mg, Mn; excess K, soluble salts.

Leaves distorted:
low S, B, Cu; excess B, soluble salts.

Terminal necrosis:
low Ca, P, Cu.

Terminal necrosis after severe chlorosis:
low Fe.

Wilting:
low B, Cu.

Leaf veins colored:
pinkish — low N; purplish — low P; redish — low S.

Premature leaf drop:
low N, Mn; excess B, soluble salts.

Marginal scorch older leaves:
excess soluble salts.

Plants unthrify, growth slow, stunted:
low N, P, K, S, Fe, Cu; excess soluble salts.

New growth stiff, hardened off:
low P; excess K.

New growth soft, weak:
low S; excess N.

Poor root development:
low P; excess soluble salts.

Discolored roots:
excess soluble salts.

Root dieback:
excess soluble salts, N, ammonia (poorly drained soils).

Credit: OGA Notes Fall '83

At the recent Annual Meeting of the National Arborist Association, NELS J. JOHNSON TREE EXPERTS, Inc., Evanston, IL, received the award for an outstanding performance in safety for 1984. This is the second consecutive year that Nels Johnson Tree Experts, Inc., has received this award. The safety award is given to that firm which has the lowest incidence rate of accidents, nationwide, in the tree care industry.

Only those firms with extensive training programs are eligible.