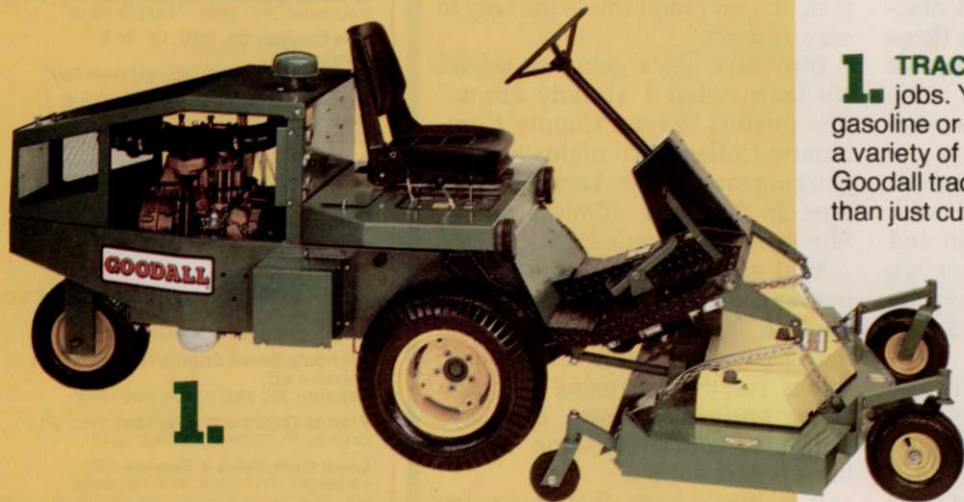
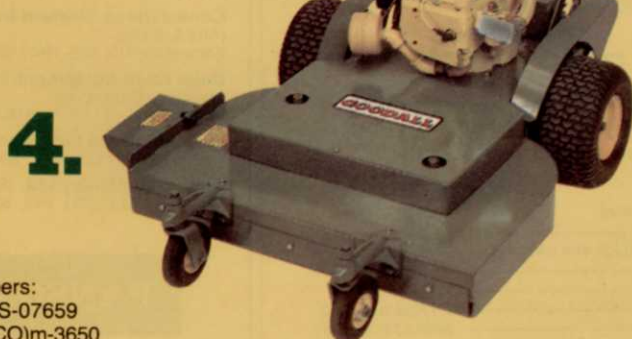


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football field is seeded, not sod. Baseball fields have been renovated.

Bird rents aerators, fertilizer spreaders, grasscatchers and electric rakes. The district owns three tractors, one pick up truck and two buses which have been overhauled to use as maintenance vehicles.

"I encourage districts to use buses for utility vehicles," Bird said. "We've taken all the seats out and can store and haul whatever we need to the location we're working on. You can't buy a truck for \$1,200 these days."

Bird has lived in Woodhaven School District for 35 years. She admits it's been hard being a woman to gain acceptance in her position. In 1969, she volunteered to be a lunch aid and the following day became a school bus driver. In 1975 she was named transportation supervisor. In 1976, she was named director of support services.

"Most people out there don't be-

lieve a woman can do this job," she says. "I make mistakes like everyone else. I'm not a political person. If it's best for the district, I'm going to do it. I've found this is the way to earn respect."

Bird says she's going to school "to learn what I already know." She attends Wayne County Community College two nights a week working toward her Associates Degree in business administration. She is on the Dean's List.

Bird says her background as a homemaker and growing up on a 10-acre farm has given her the background to be able to fix and do things for herself, using common sense and experience. She has, however, conceded some operations to technology.

It is Bird's hope that some day her budget will match her future plans for Woodhaven, making it one of the most eye-pleasing and landscape-efficient districts in Michigan.

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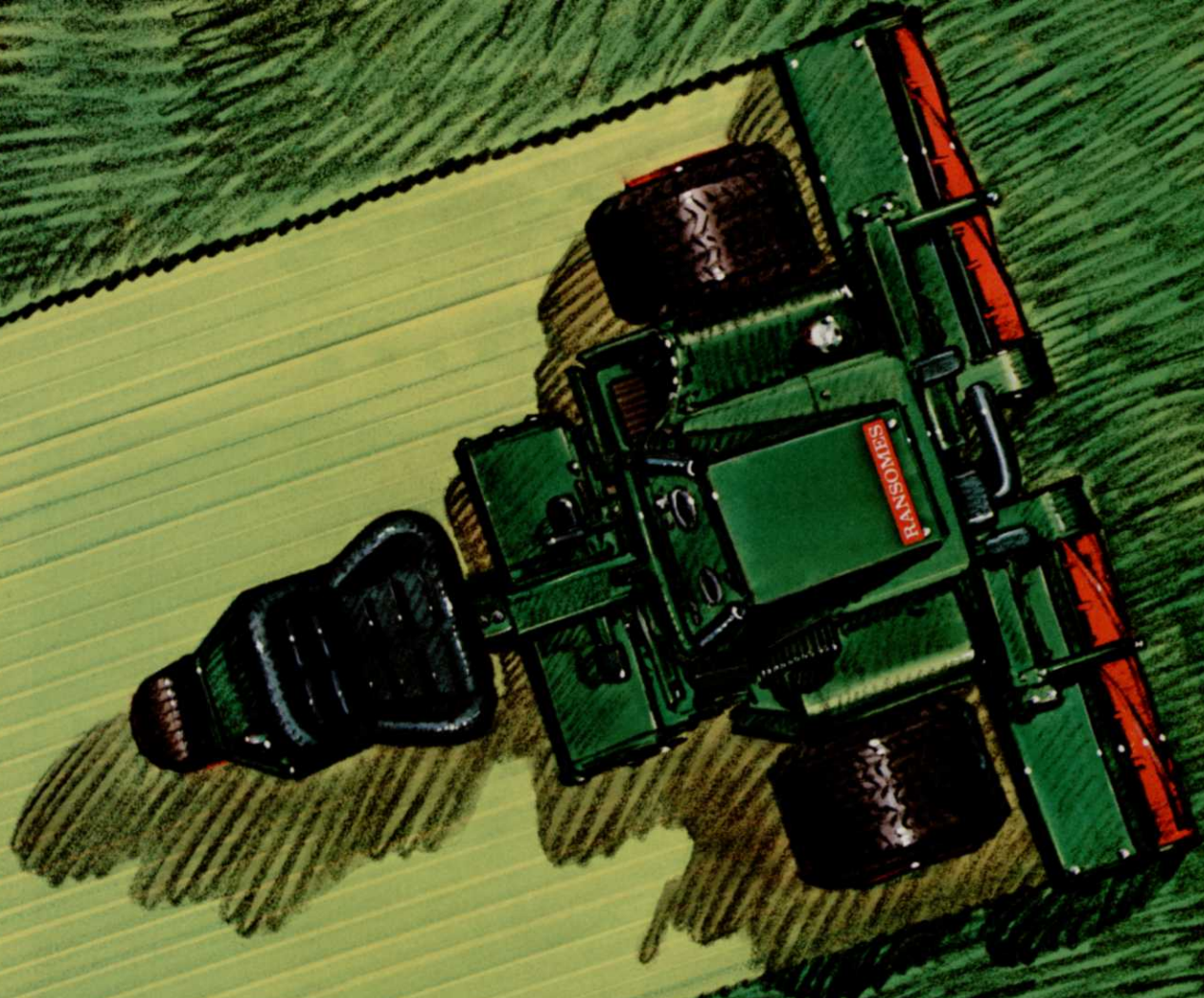
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LANDSCAPE LOG

By Douglas Chapman, horticulturist, Dow Gardens, Midland, Michigan

JUNE JOB FOCUS

1. Insect Control
2. Disease Control
3. Trimming

June makes a transition in the landscape from the panic of spring construction and maintenance to a growing season with predictable problems and more preventative maintenance. Insect concerns of June include scales, June beetles, and borers. The abundant supply of spring moisture is rapidly changing to a landscape that needs irrigation, our rhododendrons should be protected against *Phytophthora*, and early shrub pruning, or shearing, can commence.

INSECTS

June is a month where many scale insects can be controlled in the crawler stage. This crawler stage is the most vulnerable and easy-to-control period during the life cycle of scale. One should first be on the outlook for heavy infestations. If they are apparent, then control means should be considered. Several symptoms of heavy scale infestation, include honeydew dropping on the ground under the tree with the resulting sooty mold build up and stunted new growth. The scale insects that often warrant control (if of significant populations), during early to mid June, include San Jose Scale, *Euonymus* Scale, European Elm Scale, and Putnam Scale. During mid to late June the crawlers are active for Lecanium Scale, Cottony Maple Scale, Golden Oak Scale, and Pine Tortoise Scale. These sucking insects can easily be controlled with old insecticides, e.g. Malathion or Diazinon, or many of the newer insecticides appearing on the market today, e.g. Ficam or Orthene. Your state Cooperative Extension Service should be the source for currently approved and recommended pesticides.

With drier weather and higher temperatures, mites, e.g. Honey Locust Mite, Two-spotted Mite, and Spruce Mite, can become a serious problem quickly. These sucking insect-like animals suck juices from the foliage on spruce, junipers, other evergreens, and a wide range of deciduous trees. The plants quickly take on a reddish-brown color. The best pesticides to use on mites include either ovicides, that is a miticide that controls both eggs and adults, or relatively longlived miticides, such as Plictran.

Borers can most effectively be controlled during the month of June. Although many borers attack only weakened or recently transplanted trees, one should be on the alert for these insects. Four devastating borers which should be looked for and controlled, if necessary, include Flat-headed Apple Tree Borer, Bronze Birch Borer, Dogwood Borer, and Maple Peti-

ole Borer. Although there are several materials that can be used, one particularly effective and generally recommended pesticide is Dursban. Two unique, yet devastating, insects that can best be controlled in early June, causing damage in significant ways, include June Beetle adults and Black Vine Weevil. June Beetle is capable of defoliating deciduous trees. One should be on the alert to the build up of this significant problem and spray as population and damage warrant. Black Vine Weevil is particularly devastating on yews, a backbone shrub of many midwest and northeast landscapes. With the new pesticides, Orthene and Ficam, control of this insect during early June is quite possible. Control is particularly important as the adults feed on the foliage while the immature larvae destroy the root system. Symptoms are plants with poor vigor and little or no growth (also symptoms of high water tables).

DISEASES

Phytophthora cinnamomi on rhododendron starts appearing as a significant problem in June with the higher temperatures. It is particularly devastating on the Caroliniana Rhododendron types and many of the deciduous azaleas. This problem has been noted with plants grown south of New Jersey for many years, but with increased use of rhododendrons and current production practices, this disease is appearing on particularly susceptible cultivars in nurseries as far north as Boston or northern Ohio. Control is particularly easy with the new CIBA Geigy compound, Ridomil (Subdue). This fungicide, applied as a soil drench, should control this particularly troublesome problem.

Hawthorn has had problems with fireblight and rust. By the use of Lavalley Hawthorn (*x Crataegus lavalleyi*) or Washington Hawthorn (*C. phaenopryum*), one can reduce the need for spraying. These types of hawthorns are well suited to the urban landscape, street or park tree, commercial landscape, and the home grounds.

TRIMMING

Evergreen trimming, or pruning, should commence in early spring during June and extend during July. Not only is this a time that junipers and yews are most easily pruned, but it is a period when the landscape log, or maintenance schedule, is lightening up. Further, shaping, dwarfing, or increasing the density of pines could be most readily accomplished during June as the candle growth is $\frac{1}{2}$ to $\frac{2}{3}$ extended. You can remove 40-60% of this new candle growth by shearing, with the end result—compact, dense new growth.

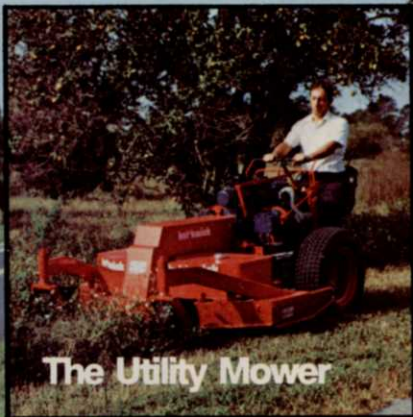
As June dries out, irrigation is of greater concern. The increased irrigation and regular mowing certainly takes center stage, with other time spent in observing the landscape and controlling the problems as they appear.

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PROBLEM SOLVERS

By Balakrishna Rao, Ph.D., and Thomas P. Mog, Ph.D.

Q: How much grade change can a tree withstand? Does this include mulches? (Pennsylvania)

A: Grading or other activities that cover tree roots can cause root mortality. The root system of trees is more extensive than many people realize. The roots of an open-grown shade tree can easily fill a circle as wide as the tree is tall. This fact is often overlooked when constructing buildings and parking lots, laying drain tiles or burying lines for utility services. These activities disrupt the soil profile. Topsoil is removed or buried; subsoil from the B-horizons is brought to the surface, pushed and piled on top of tree roots.

There are no steadfast rules, only guidelines, as to how much fill or grade change a tree can tolerate.

Six inches of heavy, poorly drained subsoil covering the roots can kill an established tree.

One inch of fill kills some roots, but not necessarily the tree.

It is true that mulches cover part of the root system but no one would use subsoil as a mulch. Assuming that an acceptable material is used, mulching to a depth of one to six inches should not harm the tree. The thickness will depend upon factors such as the size of the tree, the health of the tree and the nature of the mulch. The best advice regarding grade change is—don't do it. If you must change the grade around trees, seek professional advice from an arborist or landscaper before, not after, the grade change is made.

Q: What is the latest information on the gypsy moth situation and what can we expect in 1983? (Maryland)

A: Gypsy moth is present in 32 states. According to the Federal Animal and Plant Health Inspection Service, total defo-

liation in 1982 was 8.1 million acres, down from 13 million acres in 1981. Populations are collapsing in parts of the Northeast. The decline may be related to a buildup of nucleopolyhedrosis virus in forested areas and the low temperatures last winter. The Carolinas and Virginias are the areas of greatest new activity. Trap catches and egg mass counts show gypsy moth is in the outbreak phase in some parts of Maryland.

In tests last year, *Bacillus thuringiensis* (Bt), used at 12-16 Billion International Units (BIU) per acre, gave foliage protection equal to chemicals (Sevin) and the cost was competitive. More states will use or are considering switching to Bt because it is acceptable to environmentally concerned citizens.

Predicting what will happen in 1983 is as difficult and hazardous as predicting the weather. On the National level, a decrease is expected in the overall infestation. Ohio, Pennsylvania, West Virginia, Virginia and North Carolina are expected to see an increase in gypsy moth numbers and activity. There are localized "hot spots" in other states. In particular, Indiana, Ohio, Michigan, Oregon, Washington (state) and California were mentioned during the National Gypsy Moth Review held in December 1982. Detailed information for a particular locality, i.e., city or town, is best obtained from specialists working within the area, usually the state department of agriculture.

Q: Because of difficulty in obtaining commercial mixes, I have been mixing my own soil mixes which consist of composted barnyard soil. This works well at first, then produces an algae-like, scummy film on bare spots where no seed has germinated. Do you think I should increase my sand con-

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compete with the algae. Improve air circulation, if that is a contributing factor, by pruning tree branches. If desired, apply copper sulphate as a dilute solution at 2-3 oz. in 4 gallons of water per 1000 square feet. After the algae die, the application of 2-3 lbs. per 1000 square feet of hydrated lime will act as a desiccant and help adjust the pH, discouraging algal growth. Often fungicides like Mancozeb or Thiram, used for disease prevention, also provide adequate algal control.

You may have to overseed large bare spots and maintain good cultural practices to avoid future algal problems.



Balakrishna Rao is plant pathologist and Thomas Mog is pest management specialist for Davey Tree Expert Co., Kent OH.

Questions should be mailed to Problem Solvers, Weeds Trees & Turf, 7500 Old Oak Blvd., Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.

tent (now at 65%) and let me know where I could send samples of the soil and mix for analysis? I have had only the standard pH (6.5) and nutrient tests done so far. Also, irrigation is from an algae-ridden lake too big to treat. (Minnesota)

A: I do not believe that increasing sand content from 65% would help minimize the algal problem, although using coarse instead of fine sand would be beneficial. Several factors such as poor drainage, compacted soil and low pH can either individually or cumulatively contribute to algal problems. Algae is most often associated with wet soils and is most common in situations where the turf is already weak or not in an active state of growth. Reports also suggest that, in contrast to moss, algae is often associated with high nitrogen and phosphorus fertility. Generally, algae associated with turf are not parasitic. However, when the algae dry up, a rather impervious black crust is formed which will prevent water and pesticide movement into the soil. The crusts developing on the shoots of the turf can absorb heat and impair growth.

Check and adjust the pH (6.5) of the inherent soil. Most state universities have soil testing laboratories. In addition, there are a number of private soil testing labs in the United States. For additional information, contact your local extension service department.

Improve surface drainage. If the soil is compacted, coring or aeration practices should help minimize the problem by improving water infiltration and aeration. Determine the reasons for poor germination in some areas. Perhaps the algal crust may be preventing the germination. These bare spots make an ideal location for algal growth under favorable conditions. Also, recognize the fact that you are using algae-contaminated water for irrigation which probably is the main source for algal buildup. If possible, control the algae and then use the water for irrigation.

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MAY 1983/WEEDS TREES & TURF 79

EVENTS

JUNE						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Western Chapter of the International Society of Arboriculture 50th Annual Meeting, Anaheim, CA. May 10-14. Contact Mel Sease, Western Chapter, ISA, PO Box 7308, Riverside, CA 92513, (714) 780-8464.

Southern California Turfgrass Council and University of California Cooperative Extension Turf and Landscape Institute, Anaheim, CA. May 23-25. Contact SCTC, 1000 Concha St., Altadena, CA 91001.

Turf Landscape Meeting, University

of California, Riverside, Anaheim, CA. May 24-25.

Annual Convention, Kentucky Cemetery Association, Louisville, KY. June 9-11. Contact Lewis C. Tingley, Resthaven Memorial Park, P.O. Box 18068 Louisville, KY 40218, (502) 491-5950.

California Association of Nurserymen Nursery Field Day, Research Reports, University of California, Riverside Campus, **July 7.** Contact CAN, 1419 21st St., Sacramento, CA 95814, (916) 448-2881.

Aquatic Plant Management Society, Inc. Annual Meeting, Duch Inn, Lake Buena Vista, FL. **July 10-13.** Contact APMS, PO Box 16, Vicksburg, MI 39180.

American Sod Producers Association Summer Convention and Field Days, Atlantic City, NJ. **July 11-13.** Contact Bob Garey, Executive Director, 9th and Minnesota, Hastings, NE 68901. (402) 463-4683

American Association of Nurserymen Annual Convention, Montreal,

Canada, July 16-20. Contact AAN, 230 Southern Bldg, 15th and 8th Sts. NW, Washington, D.C. 20005 (202) 737-4060.

Mississippi Turfgrass Association 24th Annual Conference, July 24-26. Contact Jim Perry, Dept. of Horticulture, Mississippi State University, (601) 325-3935.

University of Illinois Turfgrass and Ornamentals Research Field Day, Ornamental Horticultural Research Center, Urbana, IL, **July 27.** Contact Dr. Dave Wehner, 1707 S. Orchard, Urbana, IL 61801. (217) 333-7848.

Central Plains Turfgrass Foundation-Kansas State University Field Day, Manhattan, KS. **July 27.**

To insure that your event is included, please forward it, 90 days in advance, to: WEEDS TREES & TURF Events, 7500 Old Oak Boulevard, Cleveland, OH 44130.

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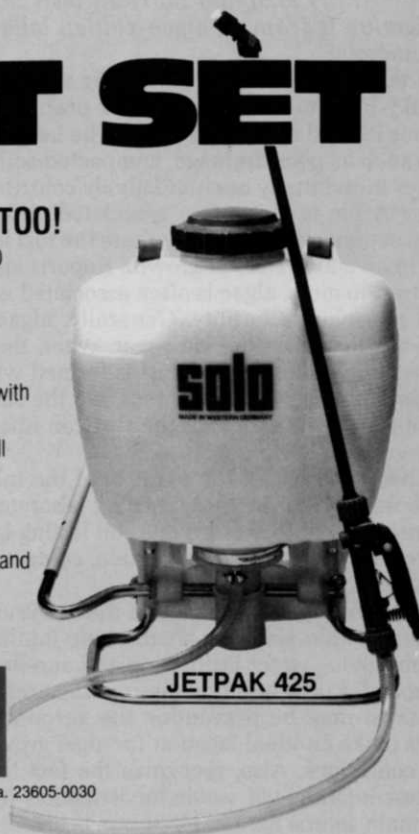
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