

RESEARCH

Managing turfgrass under tree shade

RALEIGH, N.C. — Environmental conditions in shaded areas make growing turf a very difficult task. Still, there are things you can do to make the best of the situation.

The problems associated with tree shade, according to Dr. Art Bruneau, is that the canopy often blocks enough light to make photosynthesis impossible. In addition, shade conditions are conducive to disease development, and tree and shrub roots compete with the turf for moisture.

Bruneau is an extension turf pathologist at North Carolina State University.

"These conditions produce succulent, weak turfgrass plants that are slow to establish, susceptible to environmental stress, and unable to withstand traffic compared to plants grown in full sunlight," says Dr. Bruneau.

He suggests selectively removing trees whenever possible, in areas that get



Dr. Art Bruneau

less than 50 percent open sunlight, or less than four hours of sunlight per day. "Removing lower limbs of existing trees and unnecessary undergrowth will greatly enhance wind movement and reduce the potential of disease infection," he adds.

Select trees with dense canopies and/or shallow root systems such as willows, poplars, ashes and certain maples. Also, Dr. Bruneau adds, use shade-

continued on page 12

AWARDS

Florida man wins Lawnman award

ORLANDO, Fla. — Roger Brown of Brown Lawn Development, Ormond Beach, Fla., "mowed down" 48 other contestants to win the first American Landscape Maintenance Association (ALMA) Lawnman Competition.

The contest took place April 1 at ALMA '89 Lawn Equipment Exposition here. Each contestant had to mow and trim a 25-foot wide obstacle course that included 20 feet of sidewalk, 12 feet of chain link fence and 20 feet of mulched bed.

Brown's winning time of 2 minutes, 47.94 seconds was well ahead of the average time of 3 minutes, 30 seconds. His efforts earned him a four-foot trophy and a new Snapper line trimmer. □



Roger Brown

SHORT CUTS

MOSS CONTROL...Although there are no guaranteed chemical methods for moss control, Dr. Norm Hummel, Jr. says the best method is to apply iron sulfate or ferrous ammonium sulfate at one pound per 1,000 square feet. Wait one hour and water in, or after the moss turns black. Apply in cool, humid weather. Rake the moss out after it dies, and follow with an application of lawn fertilizer to encourage growth of desirable grasses. If large bare spots remain, it may be necessary to seed or sod.

BIGGER AND BETTER...Jim Carnes, most recently president of International Seeds of Halsey, Ore., is becoming head of North American affairs for Cebeco, the giant Dutch company which owns both International Seeds and the European seed company Van Engelen Zeden. The move takes effect July 1. Word is that Rich Underwood will succeed Carnes.

HOW FAST IS FAST?...Recommended Stimpmeter speed of greens should not exceed nine feet, according to the USGA's Jim Snow. Writing in the Long Island GCSA newsletter, Snow said that more than nine feet "is an unreasonable range at all times." He also noted, "maintaining speeds between 7'6" and 9' should be feasible. Speeds greater than 9' should be established only for special occasions. Trying to keep green speeds above 9' at all times, as desired by some golfers, often results in serious problems and should be avoided."

HAPPY BIRTHDAY TO...The Texas Agricultural Extension Service is 75 years old. The big day was May 8, and this month the Lone Star State joins with other states in special birthday observances. County extension agents, members of extension program councils, mayors and other local state and national leaders are participating in the festivities.

DROUGHT? WHAT DROUGHT?...It turns out we've gotten all excited over nothing. According to John Ford of the Pesticide Applicators' Professional Association, a drought is technically defined as two consecutive years of less than 50 percent rainfall. That's a relief.

BACK TO GRASS...Ohio State University is the most recent major school to change its varsity football field from synthetic turf back to natural grass. The Buckeyes had played on plastic since 1970. O.S.U. thus becomes the third Big Ten school to have natural grass, joining Purdue and Iowa.

tolerant grasses. Mixtures of turf-type tall fescue and shade-tolerant cultivars of Kentucky bluegrass (80:20 by weight) are the best choices where cool-season turf is concerned.

Mow shaded grass at its top recommended mowing height (tall fescue mixtures at four inches) and fertilize at the same rate as you would for turf in full sun.

Weed problems are likely to include moss, which can be controlled with copper or ferrous sulfate sprayed at 5 oz. per 1,000 sq. ft. in four gallons of water. An application of 5 to 10 lbs. of ground limestone per 1,000 sq./ft. prior to reseeding will help to inactivate the corner sulfate that may be toxic to seedlings, adds Dr. Bruneau.

Because goosegrass and crabgrass need high light intensity to germinate, the use of pre-emergence herbicides in shaded areas is unnecessary, he concludes. □

MAINTENANCE

Institute brings IPM to suburbs

GAINESVILLE, Fla. — Experts at the University of Florida's Institute of Food and Agricultural Sciences (IFAS) are promoting integrated pest management (IPM) in suburban settings.

The IPM approach is based on understanding what factors cause pest populations to get too high and how those factors interact. Pesticides can then be applied, for example, at a time of day during which they would not kill off the pest's natural enemies.

"Changing your watering schedule or the length you cut the grass may reduce the number of pests, or keep them from coming back after spraying," says Dr. Dan Short, an IFAS entomologist.

He believes the institute extension service is a natural provider of IPM infor-

mation, "because it is the most consulted source for home gardening information by homeowners and lawn care professionals."

The institute believes lawn care companies are amenable to IPM, based on a study by graduate student Wendel Martinkovic.

"We found a good level of knowledge and awareness," says Martinkovic. "Some of the professionals felt that lack of consumer knowledge sometimes keeps them using less than optimal practices."

Martinkovic's study found that two-thirds of the lawn care professionals did not think IPM would decrease profits or be too complicated. Forty percent said public awareness of safety and environmental issues had reached a level that would make urban landscape IPM a marketable commodity.

Short says the IPM message is being broadcast in extension service newslet-

ters, appearances on local television and radio stations, and in speeches to various community groups. □

RESEARCH

Sandoz takes big biological steps

PALO ALTO, Calif. — New research facilities have widened the scope of Sandoz Crop Protection Corporation's research in agricultural biotechnology and biological insect control.

The California laboratories will be used to develop environmentally safe crop protection products derived from naturally-occurring strains of *Bacillus thuringiensis* (BT).

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When we introduced SUPERSORB® water absorbants a few years ago we were confident that they would be successful, but we had no idea that this practical and versatile water management tool would generate so much enthusiasm among landscape professionals.

We've compiled some of the most frequently asked questions and answers. If your questions aren't answered here, give us a call toll-free at the number below.

Q: What is SUPERSORB and what does it do?

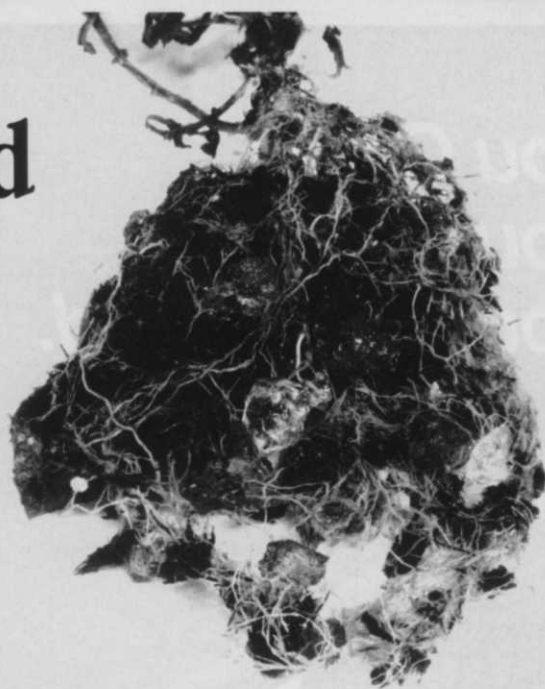
A: SUPERSORB is a water absorbant. It consists of acrylic copolymer crystals which absorb water to increase the moisture holding capacity of soil. SUPERSORB crystals can absorb up to 200 times their weight in water and release nearly 100 percent of their reserves as the soil dries out or plants require it. SUPERSORB keeps on working for at least two years. It is non-toxic to plants, people and animals, and is eventually metabolized by soil microorganisms.

Q: What will SUPERSORB do for me in landscape installation and maintenance?

A: SUPERSORB C lets you and your customers extend the time between waterings. It helps trees, shrubs, bedding and container plants and ground covers survive moisture stress conditions. SUPERSORB F can be used as a rootdip for bareroot plants, added to hydroseeding mixtures or used to speed the establishment of sod. So SUPERSORB saves you time and water and gives you better plant establishment.

Q: What's the difference between SUPERSORB and other water absorbants on the market?

A: Aside from SUPERSORB's unique blue color, which is helpful when mixing it into the soil, you'll find that SUPERSORB's particle size is more uniform for more predictable performance. In addition, SUPERSORB is backed by AQUATROLS' customer service and 35 years of experience.



Q: Which particle size, Coarse or Fine should I use?

A: We recommend SUPERSORB C, Coarse Particle (1-2mm) for transplanting trees and shrubs, amending the soil in beds, containers and hanging baskets. SUPERSORB F, Fine Particle (<.5mm) is used for hydroseeding, installing sod, seeding and for root dipping bareroot stock.

Q: Will SUPERSORB waterlog the soil or take water away from plant roots?

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Q: How much does SUPERSORB cost to use?

A: It costs about \$.50 to amend the backfill for a tree or shrub with a one foot in diameter rootball.

Q: Where can I buy SUPERSORB?

A: From the turf and hort supply distributors throughout North America. If your distributor doesn't stock SUPERSORB, accept no substitutes. Call us toll free and we'll give you the name of the nearest SUPERSORB distributor.

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vice president of research.

"The research is directed at finding hormones that are present in very tiny amounts in the insects," says Sandmeier. "We isolate these neuropeptides from insects using sophisticated separation techniques and bioassays to identify the principles."

Although the United States is leading the world in biotechnological research, Sandoz Crop Protection president and CEO Dale Miller believes more domestic support is needed to maintain that lead.

"For it (biotechnology) to become the work-horse tool that can light a fire under American farm production," says Miller, "the government must get squarely behind the next stage of development, and push."



Miller

According to Miller, the United States is in danger of losing its leadership position in biotechnology due to governmental footdragging and a complicated bureaucracy. A strong supporter of product testing, Miller believes that "if laws and regulations were written with an eye to the potential economic advantage that biotechnology offers to American agriculture ...more effort would be made to streamline the system." □

RESEARCH

Ryegrass mixture yields top turf

RIVERSIDE, Calif. — A University of California overseeding trial combining perennial and intermediate ryegrasses has produced a better quality turf.

The field trial was conducted on a common Bermudagrass fairway at a local golf course. The trial tested annual ryegrass, Palmer perennial ryegrass,

Agree intermediate ryegrass and a 50/50 mix of the perennial ryegrass and intermediate grass.

Each of the grasses and the ryegrass mix were established in late September on 50 sq. ft. plots and seeded at 100 to 600 lbs./acre rates.

Researchers concluded that:

- Annual ryegrass established quicker and was first to transition in spring;

- The initial stand of overseeding grass was directly dependent on the seeding rate, irrespective of species, with the higher seeding rates yielding a more quickly-acceptable grass stand;

- A seeding rate had little effect on the mature overseeding in terms of percentage of cover;

- A reasonable seeding rate, irrespective of species, was the 300 to 400 lbs./acre rate.

The study was conducted by John Van Dam, U.C. Cooperative Extension farm advisor, assisted by Victor Gibeault and Richard Autio. □

INDUSTRY

Dow and Lilly in joint venture

MIDLAND, Mich. — Dow Chemical Co. and Eli Lilly Co. are combining their worldwide agricultural chemical divisions to form one of the six largest agricultural-chemical concerns in the world.

The joint venture, to be called Dow Elanco Inc., will be formed by consolidating Dow's plant science business, Dow Agricultural Products, and its pest control business with Lilly's plant science business, Elanco Products Co. The joint venture is expected to reach sales of about \$1.5 billion in its first year, according to Dow.

The new company plans to build a \$35 million research facility in Indianapolis. It will be staffed by 2,800 employees, largely in marketing, sales and re-

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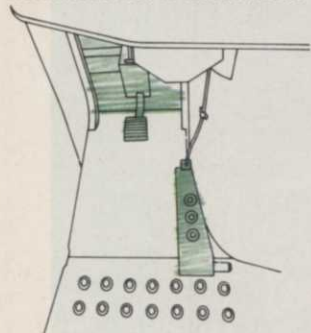
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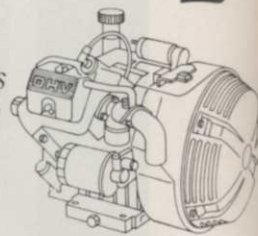
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Popular industry products manufactured by the companies include Team, Rubigan, Balan, Surflan, Treflan and Sonar (Elanco), and Dursban and Turflon (Dow). □

CONFERENCES

Waitley to address ALCA

FALLS CHURCH, Virg. — Dana Waitley, Ph.D., who was nominated by the President's Council as Woman of the Year, will be the keynote speaker for the 1989 Green Team Conference and Trade Show.

Dr. Waitley is the daughter of noted author and speaker Dr. Denis Waitley. She graduated from the University of California San Diego and has a master's degree and a doctorate

in psychology. She is a Phi Beta Kappa scholar, a Freedom Foundation Award nominee, served as goodwill ambassador to Mexico and was honored in the U.S. *Congressional Record* for an inspirational essay on America.

The show will be held Nov. 9-12 at the Sheraton St. Louis and Cervantes Convention Center in St. Louis. Sponsors of the three-day affair are the Associated Landscape Contractors of America (ALCA) and the Professional Grounds Management Society. For more information call (703) 241-4004 or (301) 667-1933. □

INDUSTRY

Nor-Am to buy ICI facility

GOLDSBORO, N.C. — Nor-Am Chemical Co. announced it will purchase the ICI Agricultural Products Group Eastern Re-

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search Center here.

The facility is located on about 265 acres of land and includes research laboratories, environmental testing sites, a large-scale formulation facility, greenhouses, office buildings and a research farm. It has been operated by ICI since 1972.

Dr. Derek Cornthwaite, president of ICI's Agricultural Products Group, said the facility is being sold "due to the reorganization of our research and development efforts in the United States." Terms of the sale were not disclosed. □

LEGISLATION

Irrigation plans need many okay

SOUTHFIELD, Mich. — Some California municipalities have begun to require approval of sprinkler irrigation plans in a move to conserve more water in that over-populated, water de-

pleted state.

"Our (California's) drought conditions have made everyone very concerned about water," says Dr. Kenneth H. Solomon.

Solomon is director of Cal State-Fresno's Center for Irrigation Technology.

Additionally, some cities are considering plant materials lists which they require contractors to follow to conserve water on new construction sites.

Solomon spoke to contractors at Century Rain Aid's Expo '89 conference. □

TREES

Arborists revise pruning guide

AMHERST, N.H. — The national Arborists Association is offering members copies of its revised Pruning Standards.

Available in tear-off pads of 50 individual standards, as well as book form, the standards include infor-

mation on fine pruning, standard pruning, hazard pruning, crown reduction pruning and pruning terminology.

To order, contact the association at Route 101, P.O. Box 1094, Amherst, NH 03031-1094; (603) 673-3311. □

LANDSCAPING

Garden hosts ideal plants

RIVERSIDE, Cal. — Southern Californians have an opportunity to view a garden featuring water-conserving landscapes, thanks in part to the University of California Cooperative Extension (UCCE) here.

The garden includes areas of fire-retardant plants, California native plants, a microclimate/design demonstration (showing appropriate plantings for north, south, west and east sides of a home), home plantings for full, partial and no sun, an

open amphitheatre for educational programs, resource patios for sheltering the garden plant materials and a maintenance yard. Also, 48 education stations have been established within the garden.

The garden's list of plant species includes more than 21 different groundcovers, 45 shrubs, 30 trees, four palms, three turfgrasses and three mulches.

The garden opens June 24 adjacent to the headquarters of the Western Municipal Water District, which donated the land, at 450 East Alessandro Blvd. □

BIOTECHNOLOGY

Nurseries ideal for biologicals

APOKA, Fla. — Growers of ornamentals and foliage plants shouldn't pass up the business opportunities in producing biological insect and weed controls, says Lance Osborne, a re-

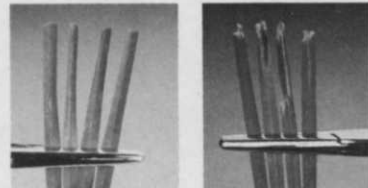
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The garden's list of plant species includes more than 21 different groundcovers, 45 shrubs, 30 trees, four palms, three lilytresses and three mushrooms.

The garden opens June 28 adjacent to the headquarters of the Western Municipal Water District, which donated the land at 450 East Alessandro Blvd. □

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