

Companies search for alternatives to synthesized chemical pesticides

RALEIGH, N.C. — America is currently in a state of "chemophobia," says R.L. Brandenburg, extension entomologist at North Carolina State University. Companies are responding by searching for alternatives to synthesized chemical pesticides, he further notes.

"Over the next five years or so it will become more and more important to find alternative approaches," he says. "The public is demanding it, even though they're demanding nicer lawns, nicer shrubs and nicer landscapes at the same time."

The public often receives information that is presented to it in a very emotional fashion, argues Brandenburg. "Sometimes emotion will overrule factual information and, as a result, we need to be looking at some of these other areas and make them available to the public."

The most obvious alternative, yet often overlooked, is to maintain vigorous, healthy turf, says Brandenburg. "Many insects like thin turf because it's easier for them to dig into the soil, lay their eggs and move through and feed on the grass."

Reducing thatch is also important, he adds, because "insects and thatch go together. The thatch provides a protective barrier for them by binding pesticides, preventing them from reaching the insect."

Biologicals currently being used successfully include milky spore and parasitic nematodes for controlling white beetle grubs. "Improved techniques to produce milky spore have been developed and should improve its effectiveness over a wider range of temperatures and species," he says.

Parasitic nematodes have been around for years, but they remain an expensive alternative. "The one that I'm aware of that is available for turf would cost about \$800 an acre. But in a few years, as the technology is improved, these may be produced much more cheaply."

Other biologicals to keep an eye on, according to Brandenburg, include various forms of diatomaceous earth and crustacean shell products, many of which remain untested under controlled situations, but are currently in the marketplace. These products destroy insect eggs. □

FERTILIZATION

It's almost time!

FORT COLLINS, Col. — Fertilization between August and December will improve heat and drought tolerance of turfgrass and result in less mowing, according to researchers at Colorado State University.

Studies by Drs. Tony Koski, cooperative extension horticulturalist, and Ohio State turf specialist John Street showed late season applications of nitrogen enhance fall and winter color of perennial ryegrass and tall fescue. The studies also determined that

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Dr. John Street

BIG NUMBERS... Roundup herbicide should enter the elite ranks of \$1 billion products, according to an analysis by Prudential-Bache Securities. The firm predicts worldwide sales of Monsanto's popular broad spectrum herbicide to exceed that mark sometime in 1989.

THE DEADLINE... for entering the 20th Annual Associated Landscape Contractors of America's Environmental Improvement Awards Program is Sept. 1. Entry forms can be obtained by calling ALCA at (703) 241-4004.

'PLACEBOUND STUDENTS'... The Institute of Food and Agricultural Sciences (IFAS) has a new program for non-traditional students who cannot leave work or family to attend school. The innovative program is for students who pursue a degree in ornamental horticulture and the most recent graduate is **Hilberto Gilbey**, manager of Ram Plant Growers in Fort Lauderdale. "The program helps industry employees who also want to continue their education and training," says **Dr. Stephen Verkade**, program coordinator. A full, four-year offering of courses is expected by next year.

OLD FRIENDS NEVER DIE... An old friend, **J. Mark Nuzum**, has joined Western Branch Holding Company Nitrex as vice president of specialty products. Nuzum, who has been in the green industry since his days at Turf Wiz and Tidewater Agricorp, is formerly a manager with the Turf Division of Lebanon Chemical Co.

COOLING SPRINGS... According to a recent article in *Golf Digest*, golf course construction in Palm Springs, Calif., may be one of the reasons the area's temperatures have dropped since the early 1970s. **Dr. Robert Balling** of Arizona State University says that solar energy is absorbed by concrete and asphalt in urban areas while golf courses and other parklands have an opposite, cooling effect. Palm Springs temperatures have dropped about two or three degrees in the last 15 years.

POURING IT ON... Despite new efforts by the green industry to decrease pesticide use through IPM programs and bio-controls, overall U.S. pesticide demand will grow four percent yearly through 1992. According to an independent report by **John Clifford** of The Freedonia Group, Cleveland, Ohio, pesticide sales will reach \$5.4 billion by 1992. "Biological control measures cannot match pesticides' effectiveness and thus will not displace their dominant role," a press release notes.



Dr. Tony Koski

these grasses green up in spring without additional fertilization.

Less mowing is required because late season fertilization avoids a burst of spring growth and the resultant need to mow, they said.

Koski and Street also found that urea and Lawn Restore, both organic fertilizers, provide the best late fall/early winter turf color when applied at a 1 lb. of N per 1,000 sq. ft. rate, in late September to late October.

The best early spring color was seen with IBDU and Scotts 41-0-0 applied at the same time and rates as urea and Lawn Restore.

More information on late season fertilization in "Research Update" next month.—ED. □

REFERENCE

News bulletin for busy managers

CINCINNATI—A monthly newsletter for property managers is now also available to landscapers and chemical lawn care companies.

Landscapes and Grounds Care Bulletin is meant to foster appreciation for commercial landscape work, increase sales through education and to give busy managers a way to stay in touch with clients.

Future bulletins will include information on chemical trimming and vegetation control, and weed control.

For more information, contact Focal Point Communications at (800) 525-6999. □

PRODUCTS

New technology in fertilizers has one application per year

MILPITAS, Calif. — Sierra Chemical Co. has released to the turf industry a revolutionary new fertilizer. Called Customblen, these resin-coated controlled-release fertilizers are based upon Sierra's Osmocote technology. They release nutrients to the turf plant for up to one year with one application.

The product has been used in the nursery market for the last 20 years, but is new to turf.

"Sierra has recently developed a line of products for both turf and ornamental use in landscape, lawn care and golf course applications," claims marketing manager Mark Broxon. "University turfgrass researchers are testing controlled release fertilizer (CRF) products this year.

Response from distributors, landscape managers and superintendents to these materials so far has been excellent."

The resin coating releases the nutrients in a different manner than slow-release materials like sulfur-coated urea. Osmocote's nutrient release is strictly dependent on temperature. "When the temperature is higher, the plant needs more nutrients—but not enough to burn it. These products release nutrients in accordance with turf and plant growth needs," says Broxon.

Two longevities (5- to 6-month and 8- to 9-month) are available and under trial. The 8- to 9-month release formula would be used for the majority of the country, including most

Midwest, lower East Coast and West Coast areas. The 5- to 6-month formulation would be used in northern climates like the upper Midwest, North and New England. For Sunbelt areas, two applications of the 8- to 9-month release products are recommended.

Turfgrass analyses available are 34-0-7; 24-6-10; 0-0-46; and 25-0-18. A 15-12-13 flower and ornamental fertilizer is available in 5- to 6-month longevity only.

"These products are expensive to make and use, but a single application is the selling point," Broxon concludes.

For more information, write Sierra at 1001 Yosemite Dr., Milpitas, CA 95035; or phone (800) 492-8255. □

XERISCAPE

New garden illustrates conservation and beauty

MESA, Ariz. — To demonstrate the water conservation properties and beauty of xeriscaping, a one-acre xeriscape garden was recently opened for public viewing here.

The result of a joint venture between Mesa Community College, Salt River Project and the city of Mesa, the garden provides examples of new design possibilities, and ways to replace or modify existing landscapes to make them more water efficient.

"This was definitely a community project," says Paul Freestone, water conservation specialist for the city of Mesa. "We started the garden with \$25,000 in cash and ended up with a landscape project worth approximately \$150,000." Thirty-nine landscape and irrigation companies donated time and material to



Ron Dinchak, Mesa Community College life science instructor (kneeling), explains planting techniques to his students.

the garden, and local citizens donated their time to complete the project. Extra help was provided by the University of Arizona Extension Service and Arizona State University's Graphic Arts Department.

The garden features 150 varieties of shrubs and

ground covers, 60 varieties of trees and three types of turfgrasses. All are zoned in accordance with their water needs and sun exposure. Signs posted throughout the garden identify the various plants and explain the principles of xeriscaping. □