

# HOT TOPICS

## Biological pesticide market to hit \$150 million by 1997

**CLEVELAND**—The biological pesticide market is expected to reach \$150 million by 1997, according to a business research group here.

Demand for pesticide active ingredients is expected to increase 4.7 percent per year until 1997, when it will total nearly \$4 billion, the study says.

The Freedonia Group, Inc. says the increase in demand will be balanced against more specialized formulation used in lower quantities. The volume will be slightly higher than 1992 levels of nearly 1.1 billion pounds.

The Freedonia Group's study, "Pesticides in the U.S. to 1997," says consumption of conventional pesticides is expected to expand 4.5 percent per year through 1997. These products depend a lot on the agricultural sector, and demand hinges on specific factors such as climate and insect population, among other causes.

Herbicides, insecticides and fungicides account for more than 90 percent of all pesticide use.

Biological pesticides currently account for a very small portion of the pesticide market. Rapid growth is expected as new products are developed and marketed, says industry analyst Luci Young. Adding to the increase is the growing interest and research by conventional pesticide manufacturers in alternatives to chemical-based

World Pesticide Consumption  
(billion US dollars)



Source: Study #636, The Freedonia Group, Inc. (Cleveland, Ohio).

control products.

Agriculture use accounts for more than 70 percent of all pesticides. Demand in agriculture is influenced by climate, number of acres planted, number of acres harvested and the crop mix. Young says corn, soybeans and cotton require the most pesticide care.

The study says commercial pesticide applications by professional pest control and lawn care companies will see growth based on stimulation from the penetration of biopesticide products—which the study call “safer” than chemical controls—and by a stronger economy which will allow consumers and businesses to purchase these services.

Growth in consumer pesticide demand will be based on improved, higher cost for-

mulations and increased usage fostered by the popularity of do-it-yourself lawn and garden care.

Biological pest control products have been received with both support and skepticism.

The major drawback to biological products has been their high cost and low efficacy relative to synthetic pesticides, making repeat applications necessary. Products degrade quickly, are sensitive to adverse soil pH factors, and are easily affected by moisture and temperature.

From an environmental point of view, genetically engineered products have yet to be declared completely safe. To overcome these misperceptions, some companies are creating products based upon genetically-engineered bacteria which are killed before inclusion into the finished product. Although dead, the microorganisms retain internally-generated poisons that are fatal to target pests.

Safety questions still prevent widespread use of biopesticides. The Freedonia report says live bacterial, viral and fungal-based pesticides will not be cleared for widespread use until the late 1990s. Products which use dead microorganisms will continue to be marketed.

—Terry McIver

### ELSEWHERE

**N.A.A. mini-survey on IPM programs, page 45**

**Two turfmen pass away, page 45**

**Environmental relations kits, page 46**

## NAA mini-survey shows interest in IPM programs

**AMHERST, N.H.**—Seventy-seven percent of respondents to a National Arborist Association Mini-Survey said they follow Plant Health Care or Integrated Pest Management techniques.

Those programs have been available to customers for an average of 6.8 years.

Horticultural oils were ranked the control product of choice, with Tempo larvicide ranked second and insecticidal soaps ranked third.

Sixty-one percent of those who said they have PHC/IPM programs said their customers are more concerned with products used on their properties than before.

But despite the shift in control programs, 61 percent said they have seen a decline in the number of effective pesticide products labeled for control of pests on ornamental plants.

### Survey results

#### Do you have a PHC/IPM program?

Yes .....77%  
No .....13%

How long has it been available? 6.8 years

Rate the success of your current program from 1.0 to 5.0, with 1.0 being very successful. ....2.4

Did you have a pest management program in place prior to the current program?

Yes .....68%  
No .....32%

Why did you change to Plant Health Care? Rank responses from 1.0 to 5.0, with 1.0 being the most important reason:

Greater safety .....2.0  
Environment .....2.0  
More effective .....2.0  
Regulations .....2.0  
Public demand .....0.3  
Cost .....0.3

List the five most commonly used pesticide products in your current program:

#1: .....Horticultural/dormant oils  
#2: .....Tempo (Temephos) larvicide  
#3: .....Insecticidal soaps  
#4: .....Orthene (acephate) insecticide  
#5: .....Sevin (carbaryl) insecticide

Is posting required in your community?

At time of application .....43%  
Not required .....44%  
Required before application .....9%  
Don't know .....8%

Source: National Arborist Association

Base: 56

# HOT STUFF

## GIE elects new officers

**MARIETTA, Ga.**—David Luse of Arteka Natural Green in Eden Prairie, Minn. is new president of the Green Industry Expo, taking over from Davey Tree Expert's George Gaumer. Lou Wierichs Jr. of Pro-X Systems in Appleton, Wis. is new vice president of the GIE and E. Earl Wilson of Thornton-Wilson in Loveland, Ohio, is new secretary/treasurer. New board member Gary Trinetti of Garick Corp., Cleveland, replaces Gaumer. Trinetti represents the Professional Grounds Management Society.

## EPA studying three herbicides

**WASHINGTON**—The Environmental Protection Agency will study the effects of atrazine, simazine and cyanazine on drinking water. Ciba, which supplies pesticides to the turf-grass market, makes atrazine and simazine, both Class C carcinogens, the third most dangerous of five classes. A spokesperson for Ciba says that the company welcomes the study.

## RISE defines IPM

**WASHINGTON**—Integrated Pest Management should "manage pests and the environment to balance benefits of control, costs, public health and environmental quality," according to Responsible Industry for a Sound Environment (RISE). The organization—which represents manufacturers, formulators and distributors of specialty pesticides—defined IPM as a recent meeting of its Governing Board.

"Our members felt that their association should go on record with a definition of IPM based on the growing use of such systems, and to help eliminate confusion as to what IPM really means," says RISE executive director Allen James.

## Metasystox-R to remain on market

**YUMA, Ariz.**—Metasystox-R, a systemic insecticide used on aphids, mites, leafhoppers and other sucking pests in fruit and field crops, is remaining on the market. Gowan Company signed agreements with Miles and the Environmental Protection Agency allowing it to distribute the product, which was first registered in the U.S. in 1961.

## Power equipment sells

**ALEXANDRIA, Va.**—All categories of outdoor power equipment, except rear engine riders and tillers, are expected to show increased shipments in 1995, according to the Outdoor Power Equipment Institute (OPEI).

The organization, however, revised its predicted growth rate down to 2.3 percent for 1995 "due to recent increases in mortgage interest rates which are expected to lead to a decline in sales of new and existing homes." Growth of 1.9 percent is expected in 1996.

## Super offers video training

**WEST BEND, Wis.**—Eight training videos are available from renowned golf course superintendent Paul Latshaw for \$69.95 each. Titles are: "The Knowledgeable Operator" (riding equipment); "Turf Etiquette" (for golfers and crews); "Bringing Out the Best in the People You Manage;" "Turf Restoration and Renovation;" "Training the Trainer;" "Golf Car Fleet Management;" and "Greens Mowing Tips and Orientation."

For more information, phone Epic of Wisconsin at (800) 938-4330.

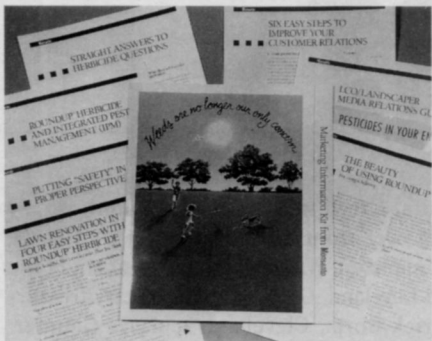
## Obituaries...

**SALEM, Ore.**—R.H. "Dick" Bailey, owner of Bailey Seeds, died of cancer at his home here Nov. 29, 1994. He was 64. Earlier in his career, Bailey worked for Dickinson Seed, co-founded Turf-Seed with Bill Rose and managed Jacklin Seed Co. He is survived by his wife Shirley, son Rich Jr., two brothers, a sister and two step-daughters.

**PHOENIX**—Golf course architect Milt Coggins died Nov. 4, 1994 at the age of 92. Coggins designed 29 courses in Arizona, California, Texas and Florida, including Prescott (Ariz.) Country Club. He is survived by his wife Tate D., sons Milt Jr. and Lewis, three grandchildren and one great-grandchild.

# GREEN INDUSTRY EVENTS

What's going on in the industry



## Environmental relations kit sells and informs

**ST. LOUIS**—Monsanto Company now offers a free environmental relations primer to help lawn care operators and landscapers describe the environmental aspect of pesticides.

"Weeds Are No Longer Your Only Concern" contains information on Roundup herbicide, including the new Roundup Dry Pak, plus non-commercial information to help managers portray the industry to the public more accurately.

The kit includes pass-along information to be given to customers and information for management and employees. A "Q&A" sheet covers the environmental aspects of herbicide use, lawn renovations, environmental and public safety data sheets, information on integrated pest management and tips on selling services which include the use of Roundup.

## Corrections

✍ A four-wheel-drive Swinger articulated loader was incorrectly identified as a Thomas skid steer loader in our November issue. We apologize for the error.

The Swinger line is actually manufactured by Northwestern Motor of Eau Claire, Wisc. It includes three loaders with SAE lift capacities from 2,400 to 1,200 lbs. Lift height at the pin is up to 10 feet.

Swingers feature easy operating hydrostatic drive to the drop box and easy-to-maintain mechanical drivelines and axles.

For more information on Swinger loaders, contact Larry Blanshan, Swinger Division, Northwestern Motor, 1125 Starr Ave., Eau Claire, WI 54703; phone (715) 835-3151.

✍ Also, 1993 PLCAA President Lou Wierichs of Pro-X Systems, Appleton, Wis., claims he was the first person to complete the Certified Turfgrass Professional program and earn the CTP designation early this past summer. By summer's end more than a dozen turf pros had passed the course.

## FEBRUARY

**1-2: New York Turf and Grounds Expo II**, Holiday Inn, Suffern, N.Y. Phone: (518) 783-1229.

**2: NorCal Spring Trade Show**, San Mateo County (Calif.) Expo Center. Phone: Margo Jonsson, (916) 961-6814.

**2-4: Landscape Design Short Course**, Sheraton Inn, Pittsburgh North. Phone: Michael Masiuk, (412) 392-8540.

**3-5: The Management Clinic**, Galt House East, Louisville, Ky. Phone: American Association of Nurserymen, (202) 789-2900.

**4-8: Sports Turf Managers Assn. National Conference & Exhibition**, Pirate City, Bradenton, Fla. Phone: STMA, (312) 644-6610.

**5-7: Fertilizer Institute Annual Meeting**, Marriott's Orlando (Fla.) World Center. Phone: TFI, (202) 675-8250.

**6-7: International Society of Arboriculture Shade Tree Symposium**, Lancaster (Pa.) Host Resort. Phone: Elizabeth Wertz, (215) 795-2096.

**6-8: Landscape Design Short Course**, Warrendale, Pa. Phone: Michael Masiuk, (412) 392-8540.

**7: Target Specialty Products Annual Seminar and Exhibit**, Mesa, Ariz. Phone: Target, (310) 802-2238.

**7: Michigan Arborist Association Insect Practical Applicator Training**, Southfield (Mich.) Civic Center. Phone: MAA, (810) 391-0030.

**7-8: Southern Illinois Grounds Maintenance School**, Gateway Convention Center, Collinsville, Ill. Phone: Ronald E. Cornwell, (618) 692-9434.

**7-9: Pro Green Expo**, Colorado Convention Center, Denver. Phone: (303) 756-7282.

**8-9: Landscape Industry Show**, Long Beach (Calif.) Convention Center. Phone: (916) 448-2522.

**8-9: Garden State Nursery & Landscape Conference**, Somerset, N.J. Phone: New Jersey Nursery & Landscape Assn., (609) 291-7070.

**8-10: Turfgrass Producers International Midwinter Conference**, Walt Disney World Village, Orlando. Phone: TPI, (708) 705-9898.

**9: Northeastern Pennsylvania Turfgrass and Grounds Maintenance School**,

Mountain Laurel Resort, White Haven, Pa. Phone: Andrew McNitt, (814) 863-1368.

**9-10: Target Specialty Products Annual Seminar and Exhibit**, Anaheim, Calif. Phone: Target, (310) 802-2238.

**9-10: Inland Northwest Turf, Tree & Landscape Conference**, Spokane, Wash. Phone: (509) 335-3530.

**13-15: Pennsylvania Nurserymen & Allied Industries Conference**, Hershey (Pa.) Lodge. Phone: (717) 238-1673.

**14-15: Target Specialty Products Annual Seminar and Exhibit**, San Ramon, Calif. Phone: Target, (310) 802-2238.

**14-16: Landscape Contractors Assn. Winter Workshop**, Holiday Inn Crowne Plaza, Rockville, Md. Phone: LCA, (301) 948-0810.

**14-18: National Arborist Association Annual Meeting**, Walt Disney World Village, Orlando, Fla. Phone: NAA, (800) 733-2622.

**15-17: Athletic Field Construction and Maintenance**, Cook College, Rutgers University. Phone: (908) 932-9271.

**17: Environmentally Conscientious Turfgrass Maintenance Seminar**, Lakewood (Ohio) City Park. Phone: Jack Kerrigan, (216) 631-1890.

**17: Target Specialty Products Annual Seminar and Exhibit**, Visalia, Calif. Phone: Target, (310) 802-2238.

**17-18: Masters in Landscape Management**, Chicago. Phone: Associated Landscape Contractors of America, (703) 620-6363.

**20-27: Golf Course Superintendents Association of America's International Conference and Show**, San Francisco. Phone: (913) 841-2240.

**25: Long Island Tree Conference**. Phone: (516) 225-1569.

**25-27: Wisconsin Landscape Federation Winter Convention**, Paper Valley Hotel, Appleton, Wisc. Phone: Kari Foster, (414) 529-4705.

**27-28: Professional Lawn Care Association of America Day on the Hill**, Washington, D.C. Phone: PLCAA (404) 977-5222.

**28-March 3: International Erosion Control Assn. Conference**, Westin Peachtree Plaza Hotel, Atlanta. Phone: IECA, (303) 879-3010.