

If trees, ornamentals and turf are yours to protect, then SEVIN® carbaryl insecticide is ideal for your needs.

Because tending such a wide range of growing things demands a versatile insecticide.

As a start, SEVIN is registered for control of 44 different pests that attack shade trees, ornamentals and turf—nice to know when you're not always sure

STOP! ALL PESTICIDES CAN BE HARMFUL TO HEALTH AND THE ENVIRONMENT IF MISUSED. READ THE LABEL CAREFULLY AND USE ONLY AS DIRECTED.

which pests will be threatening.

Broadly registered SEVIN carbaryl helps keep your inventory small. And ready. Instead of large and confusing. It can also reduce the time you'll spend changing nozzles, switching chemicals and flushing tanks. One product for many uses.

And SEVIN doesn't only benefit you, but also the people entering those residential or recreational areas you maintain. They can resume using the grounds or yard as soon as the spray dries or the dust settles.

And they'll appreciate the biodegradability of SEVIN. Plus the fact that when compared with other insecticides, it ranks low in toxicity to people, animals, birds and fish.

Choose from either Wetable powders, flowables or SEVIMOL® 4, a liquid blend of SEVIN and molasses. Granules, dusts and baits are also available for certain specialized uses.

PLANTS	INSECTS CONTROLLED
HERBACEOUS ANNUAL, BIENNIAL AND PERENNIAL PLANTS such as carnation, chrysanthemum, gladiolus, iris, peony, zinnia, etc.	blister beetles, boxelder bug, flea beetles, Japanese beetle, June beetles, lace bugs, leafhoppers, leaf rollers, mealy bugs, plant bugs, psyllids, rose aphid, thrips (exposed).
SHRUBS, TREES AND WOODY PLANTS such as ash, arborvitae, azalea, barberry, beech, birch, boxwood, catalpa, cedar, cypress, dogwood, elm, euonymus, fir, ginkgo, hackberry, hawthorn, holly, honeysuckle, hydrangea, juniper, lilac, magnolia, maple, oak, pine, redbud, rose, spruce, sycamore, tulip-tree, etc.	apple aphid, bagworms, birch leaf miner, boxelder bug, boxwood leaf miner, cankerworms, catalpa sphinx, Cooley spruce gall aphid, Eastern spruce gall aphid, elm leaf aphid, elm leaf beetle, elm spanworm, eriophyd mites, gypsy moth, Japanese beetle, June beetles, lace bugs, leafhoppers, leaf rollers, mealy bugs, mimosa webworm, oak leaf miner, orange striped oakworm, orange tortrix, periodical cicada, plant bugs, puss caterpillar, rose aphid, roseslug, saw flies (exposed), scale insects, spruce needle miner, tent caterpillars, thorn bug, thrips (exposed), webworms, willow leaf beetles, yellow poplar weevil.
LAWNS, TURF	ants, bluegrass billbug, chiggers, chinch bugs, cutworms, earwigs, European chaffer, fall armyworm, fleas, green June beetle, leafhoppers, millipedes, mosquitoes, sod webworm (lawn moths), ticks.

NOTE: SEVIN will injure Boston Ivy, Virginia Creeper, and Maidenhair fern.

But choose SEVIN. The insecticide that offers versatility, convenience, control and acceptance.

That's why SEVIN carbaryl insecticide is the answer for the grounds maintenance professional.

SEVIN 
CARBARYL INSECTICIDE
IS THE ANSWER.

SEVIN and SEVIMOL are registered trademarks of Union Carbide Corporation for carbaryl insecticide. Union Carbide Corporation, Agricultural Products Division, 7825 Baymeadows Way, Jacksonville, FL 32216.

PURDUE UNIVERSITY: THREE TYPES OF TURF

Melvin J. Robey is superintendent of athletic facilities at Purdue University, West Lafayette, Indiana, a position he has held for the last ten years. He received his Bachelor's degree from Utah State University and his Masters at Purdue, both in turf management. He is author of the book *LAWNS*, published by Davis McKay Company in New York and has another in the works which will be out soon.



All of the athletic facilities at Purdue University under the supervision of Melvin J. Robey are used extensively. They include an outdoor track, hockey field, baseball diamond, a natural turf practice field, a synthetic turf practice field, and the football stadium, a Prescription Athletic Turf system.

The stadium is used for spring football practice, anywhere from two to four times per week, averaging probably twice. In the Fall, it is used maybe 25 to 30 times for practice and games. It has also been used for the women's hockey games, and probably will be again this year. The field is seeded with a mix of Bonnie Blue, Baron, Nugget and Glade. It has just been recently resodded for the first time in four years. Plans in-

After the sod is put down, it is lightly rolled. The PAT system does not have a crown.

The first step in resodding the center of the practice field is removing the existing turf.



clude overseeding heavily this fall with Warren's A-34. The center of the practice field is resodded every year after spring ball is over. This includes an area about 40 feet wide and 30 feet long. The practice fields and baseball diamond have been overseeded with Manhattan ryegrass for the last ten years. This has proven to be a very tough, durable grass for athletic areas, according to Robey.

All of the fields except the stadium receive a complete fertilizer, including four pounds of nitrogen,

per year. The stadium receives more.

Normal herbicide applications include a mixture of 2,4-D, dicamba and MCP, depending upon the species of weed. Pre-emergence weed control includes applications of Dacthal. Diazinon and malathion provide insect control.

Grubs and the like have not been too much of a problem, says Robey, but leaf hoppers are, from a standpoint of annoyance to the football players.



Vacuuming the stadium turf gives it a well manicured look.

An endzone design requires painstaking measurement and painting.



We stand out like a green thumb.



Because we're the only magazine to reach the entire residential lawn care service industry.

This is a growth market of 8,000 companies selling chemical lawn care and maintenance services to the 45 million home owner/residential turf market in the U.S.

A market with a 25% growth last year. And \$1.25 billion in sales. And we hit the top management.

Stand out in the one magazine covering the fastest growing service industry in North America. Join us.

Contact:
Steve Stone
Nat'l. Ad Director
757 Third Avenue
New York, New York 10017
(212) 421-1350

A Harvest Business Publication.
Subsidiary of Harcourt,
Brace Jovanovich, Inc.

**LAWN
CARE
INDUSTRY**

Purdue University

The fields are normally mowed twice a week in the Spring and Fall, sometimes three times if growth is especially rapid. Frequency is cut down to once per week during the hot season.

Mowing height varies slightly for the fields. The baseball infield is mowed at one inch, while the outfield is mowed at 1¼. The other

areas are all mowed at one inch. Height depends primarily upon the coaches preference, according to Robey, and management procedures are developed accordingly. The stadium is the only athletic field that is on a preventative disease program. Manhattan's susceptibility to pythium becomes a problem in the stadium, where air circulation is

limited. The stadium is sprayed every ten days. The other fields are watched with a sharp eye for disease signs and sprayed accordingly.

Fusarium hasn't been a problem in the stadium, but dollar spot, pythium and leaf spot can cause problems if not kept after. Snow-mold hit hard this year, hitting the ryegrass a little harder than the blue. Quite a bit of grass was lost, although not enough to cause major concern.

The stadium does have heating cables, but Robey wasn't able to use them at all this year, due to the coal shortage.

Equipment used to maintain the fields include a nine-gang reel mower, a seven-gang hydraulic reel mower, a smaller riding reel mower, a 48-inch rotary, and four 21-inch trim mowers. A monofilament trimmer is also frequently used. Utility vehicles include two trucksters, a pickup and a dump truck. A 100 gallon chemical sprayer and fertilizer spreader are used from the back of one of the trucksters.

There are three full time employees whose primary concern is athletic field maintenance. During the summer Robey picks up three to five college students.

Robey has found that he can maintain the natural turf systems with considerably less money than the artificial. He does feel a need for all three types of fields across the country. "The National League football players just held a vote and decided that they like the sand root-zone of the PAT system to play on the best," says Robey. (There are 11 PAT systems installed around the country presently.)

The Athletic Department at Purdue, of which Robey is a part, is responsible for maintaining its own facilities. Robey feels that it is much easier to maintain nice facilities under such a program. "I'm able to be associated much more closely with the various programs and coaches, and know what their needs are. I'm also able to explain my problems to them," Robey adds.

One thing Robey does like to stress, in maintaining athletic facilities, is that it is extremely important for the band to have a practice area other than the game field. Marching in place, as a band tends to do, creates severe compaction problems. The band will often do more damage to the field than the football team will." **WTT**



Banvel®
tough on weeds,
easy on turf.

Beautiful results! How often have you tried a herbicide only to end up with poor control or damaged turf? No longer. Banvel® 4S, Banvel® +2,4-D, and Provel® give you economical control of more than two dozen difficult weeds. Weeds that other herbicides often miss. The translocating action of Banvel® and Provel® attacks the entire weed, roots and all, to get at deep root and regrowth problems. True season-long herbicides, they can be used in warm or cool, wet or dry weather, and store through the winter without loss of potency. They mix readily in hard or soft water, and may be applied with conventional spray equipment. **Banvel® 4S for tough weeds, Banvel® +2,4-D for pre-mixed chemicals and broader spectrum control of broadleaves, and Provel® for pre-mixed chemicals and broader spectrum broad-leaf control with less Dicamba.** You get beautiful results, at a cost you'll find pretty attractive, too!



Before using any pesticides, read the label.

Velsicol

VELSICOL CHEMICAL CORPORATION
"The turf chemical specialists"
341 East Ohio Street, Chicago, IL 60611
(312) 670-4592

Circle 140 on free information card



Woodridge Golf Club,
Lisle, Ill.

Manhattan used on
cart path wear area
takes abuse even
under shady growing
conditions.

Certified

Manhattan

TURF TYPE
PERENNIAL
RYEGRASS

distributed by:

WHITNEY-DICKINSON SEEDS INC.

52 LESLIE STREET
BUFFALO, NEW YORK 14240

STILL THE LEADER

There are many fine leafed perennial ryegrass varieties but only one **Certified Manhattan "Turf-Type" Perennial Ryegrass**. Still a leader because those who work with grass on a professional basis know **Certified Manhattan** is true to variety.

Each lot of **Certified Manhattan** is tested for seedling fluorescence. If it is over two percent, it cannot be **Certified** as **Manhattan**. Fluorescence indicates contamination by annual ryegrass or other unwanted varieties. So, with all the new fine leafed ryegrasses on the market... **Certified Manhattan** is still the leader. What's more, we believe the high quality standards of **Manhattan** will keep it "the leader".

FOR MORE INFORMATION

Circle 122 on free information card

**MANHATTAN RYEGRASS
GROWERS ASSOCIATION**

1349 CAPITAL N.E.
SALEM, OREGON 97303

▪ **Wear Tolerance . . .**

Tests at Michigan State University, using both a wheel and sled, rated Manhattan best for wear tolerance over the other fine leafed perennial ryegrasses tested.

▪ **Cold Tolerance . . .**

Michigan State cold tolerance tests ranked Manhattan as one of the most cold tolerant of all the new turf type perennial ryegrasses tested.

▪ **Cutability . . .**

Cutability tests at the University of California, Davis, placed Manhattan number one in cutability of the popular varieties of fine leafed perennial ryegrasses tested.

ROLLINS COLLEGE: HEAVY USE OF EIGHT ACRES

Jim Boston is assistant to the physical plant director at Rollins College in Winter Park, Florida. One of his areas of responsibility is the grounds at Rollins, including the athletic facilities.

“We’re fortunate if we can keep the fields in good shape half a year . . . because of constant use.”

Rollins College in Winter Park, Florida, has only eight acres of athletic grounds. However, the patterns of use are intense, and Jim Boston, assistant to the physical plant director, fights problems common to all turf managers.

A fertilization program, and control of disease and insects are the items of major concern to him. However, he is limited to how much he can do and when, because the fields are in use almost constantly. The soccer field, for example, is also used for intramurals during the day and through the off sports season. “We’re fortunate if we can keep the field in good shape half a year, much less a full year, because of this constant use,” says Boston.

“We’re involved with a very limited space. We’re in an area that is built up in every direction with no room for us to expand. Our baseball outfield is used for soccer practice, because the game is so damaging to turf. The only area that we can treat properly and keep in a condition where we don’t have an excuse is the infield of the baseball field, because it is not used for anything but baseball.”

“The rest of the field does have some weeds,” says Boston. “It has some worn areas, simply because we can’t control it.” Boston feels that the key to maintaining healthy turf lies in the root system. “When turf-grasses are trampled down, just worn out so to speak, they’re going to bounce back and fill in the bare spots a lot faster if the roots are strong, deep and healthy.”

One very important aspect of keeping healthy turf in the South is pH. “We use dolomite lime to keep pH at its optimum to get the best growth from the grass during the periods when you have to try and coax it to do so. We apply 10 tons per year.”

“Every two or three months, I



BEAUTIFUL ALL OVER.

0217® brand Fylking Kentucky bluegrass is beautiful in every way; brilliant green in early spring, consistent green in summer heat and long-lasting green into autumn. It has improved resistance to many diseases, drought, heat, cold, smog and traffic. Low-growing, Fylking forms exceptionally thick-knit rhizomes and root system for a dense sod that helps resist weed invasion. Now you can have a home putting green

because fine-textured Fylking thrives on low-mowing (even as low as 1/2 inch).

This physically pure, genetically true seed contains no annual bluegrass (*Poa annua*), bentgrass, or short-awned foxtail.

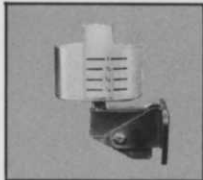
Beautiful in price, too. Fylking Kentucky bluegrass seed costs less than most other elite bluegrasses. Ask for the Swedish beauty, 0217® brand Fylking Kentucky bluegrass seed when ordering at your local wholesale seed or sod distributor.



FYLKING KENTUCKY BLUEGRASS

U.S. Plant Patent 2887

Another fine, quality-controlled product of Jacklin Seed Company.



WE WROTE THE BOOK ON CONTROLS

Weather-matic controllers can operate any size sprinkler system effortlessly and automatically, on almost any type of watering program. Our reliable electronic controllers offer automatic, semi-automatic or manual operation; variable timing, 14-day calendar programming, dry indexing; Rain-Stat®; modular expandable and command/satellite models.

THE TURF IRRIGATION MANUAL

A definitive reference book on landscape irrigation just published by Telsco. Copies may be ordered from the factory.



MAIL TO: Weather-matic Division Telsco Industries • Box 18205C • Dallas, Texas 75218

Please send me information on

- Residential controllers
 Heavy-duty industrial controllers
 Command/satellite control systems
 Turf Irrigation Manual

NAME _____

COMPANY _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____



Circle 143 on free information card

Rollins College

will pull plugs from our fields and check the condition of the root system. If I am satisfied with it, but yet the greenness I want isn't there, I'll apply heavy nitrogen or iron to bring it out. If not, then I will apply something that will be more beneficial to the roots. When I'm trying to recover an area, I'm more concerned with the roots than I am the top. The top will come if the roots are there."

Both of the athletic fields at Rollins are bermudagrass. No overseeding is done, because the facilities aren't in use during the

"Sometimes we have to water day and night to supplement the rainfall."

winter months. That can be good and bad, according to Boston. "We would like our facilities to be growing and recovering during winter, but they're not because it is winter. They're also not in use, so we're not really in that bad of a shape."

Right now is the rainy season, and the fields might get rainfall almost every day. This past winter there was maybe only one shower during three or four months. During those periods, Boston relies heavily on irrigation through his quick coupler system. "Sometimes we may have to water night and day to supplement the lack of rainfall. We don't like to water at night, because of the increase in disease susceptibility, but we're more concerned with keeping the grass alive than we are with fungi."

"I'd say that nematodes and mole crickets are our biggest pests. We have our fields treated for nematodes at least once a year. For some reason this also tends to drive the mole crickets out. It doesn't kill them, they just leave."

"Since our soil is 90 percent sand, and with the heat in Florida, we have a considerable weed problem. I approach it a little differently than most, however, because of the timing of our baseball and soccer programs.

Spring baseball practice begins right after the winter months and their game season comes in right behind that. So you've got a decision

"Do you want to kill the weeds and leave bare spots or do you want the games played on a green outfield?"


to make. Do you want to go in and kill the weeds and leave bare spots to gradually fill in, or do you want the games played on a green outfield. The spectators from the stands can't tell if they're weeds or grass. I wait until May before I treat for broadleaf weeds. I lose a month of growing time, but the baseball team had a green outfield."

Boston does not consider the budget for athletic field maintenance high, neither does he feel that it is low. "You have to look at

"We don't get the dollars that we'd like to have, but we get enough to do a decent job."

priorities. You've only got so many dollars for the school to work with and our athletic facilities are not on the very top of the priority list. We don't get the dollars that we'd like to have, but we get enough to do a decent job."

One full-time employee takes care of the athletic grounds. An additional person is hired during the summer. "I'm fortunate to have an individual that's taking care of the grounds who really cares about what he is doing and enjoys the results of his labor. That's the key to the whole ball game in taking care of turf-grass." **WTT**



What will be the most important news in turf maintenance this year?

Even the most up-to-date turf manager would have a hard time answering that one. Turf maintenance is a constantly changing business. And keeping up with those changes is a full time job. That's why we've been conducting information-sharing turf seminars for almost a decade.

Each year, Scotts Professional Turf Institute, PTI, presents seminars at more than a hundred locations throughout the United States and Canada. But it's not the same seminar each year. It can't be. The science and technology of turfgrass maintenance isn't the same every year. So PTI draws on the extensive knowledge and experience of Scotts researchers and pulls together what we feel are the most valuable pieces of information that we can share with you.

Soil testing, the role of micronutrients in turf growth, physical properties of soil, seed labeling, diseases, insects and weeds are just a sampling of the topics that have been discussed over the years.

Good, solid, technical information.

But, we're also well aware that most turf managers like to hear what other turf managers are doing.

So we include interviews with successful turf managers from around the country; we ask them to share their thoughts and give you an insight into some of the practices they use or problems they've solved.

The seminars are structured, but informal. We openly invite participation. You may have faced a situation similar to the one being discussed... or, better yet, found a solution to a nagging problem that you may want

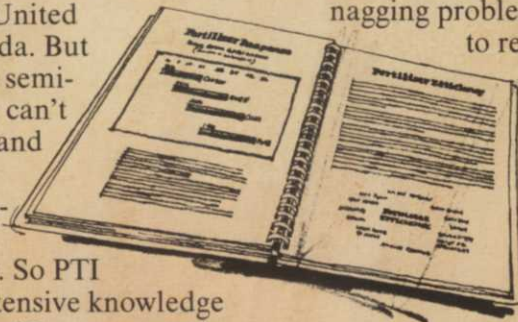
to relate to your fellow turf managers. We strive to create the perfect environment for the exchanging of ideas. And testimony to our success is the number of turf professionals who take a day away

from their busy schedules every year to attend.

Your ProTurf Tech Rep can tell you when the next ProTurf seminar will be scheduled in your area. (If you don't have regular contact with a Tech Rep, feel free to call the toll free Scottline: 800/543-0006.

In Ohio, call collect: 513/644-2900.)

We'll be looking forward to sharing some ideas with you.



Scotts

ProTurf® Division • O. M. Scott & Sons
Marysville, Ohio 43040

Circle 103 on free information card

MAKE THE CUT

FORD TRACTORS



Photographed at Pebble Beach Golf Links



Year after year, Ford tractors and equipment help course superintendents prepare for championship events. Above, a Ford 531 LCG (low center-of-gravity) tractor is shown grooming Pebble Beach for the 1977 PGA championship. Tough, reliable and efficient, today's Fords can help you break par on many of your course maintenance operations.

Count on your Ford tractor dealer for sales and service. He's listed in the Yellow Pages under "Tractor Dealers" and/or "Contractors' Equipment and Supplies".

Ford lawn, garden and turf tractors. Six models, 10 to 19.9 hp. Completely enclosed engine, rubber mounts between frame and engine help reduce noise. Great work savers around clubhouse, shrubs . . . and your lawn and garden at home.

Ford 1600 tractor, an ideal combination of power and economy for a wide range of course maintenance work. 23 PTO hp. Big tractor features include differential lock, 3-point hitch and hydraulics and 9-speed transmission.

FORD TRACTORS



Circle 150 on free information card