When Oscar Miles, CGCS, of The Butler National Golf Club, introduced Penneagle creeping bentgrass into his Poa annua infested A-20 bluegrass fairways in 1980, he took a dynamic step toward the beautiful fairways praised by the pros during the Western Open.

Utilizing a prescribed program of aggressive, deep core aerification, drop seeding and verticutting, Penneagle was expected to aggressively compete with the bluegrasses. With triplex mowing and clipping removal, the unwanted grasses are yielding to Penneagle.

Oscar feels that his fairways are now 70-90% Penneagle.

With Butler National's reputation at stake, Oscar Miles couldn't chance anything less than Penneagle for his "immaculate" fairways.

Warren Bidwell is available to talk to your superintendents' group about Butler National Golf Course and the "Penn Pals," Penncross, Penneagle and Pennway Blend, on your golf course. Call or write TEE-2-GREEN Corp. for details.

Penneagle blue tags earn cash or prizes.

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Penneagle's Oregon certified blue tags qualify for cash awards to qualifying turf organizations for turf research. Call our toll-free number for details.

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Circle No. 148 on Reader Inquiry Card
A diminishing water supply is forcing the green industry to take a hard look at conservation and alternative sources of water for irrigation.

More 'eyes' for turf managers

A dry idea, sort of

Slip-sliding away

Local xeriscaping councils

Three California researchers discuss why turfgrass needs that water you're giving it, and what happens when it gets too much or too little.

Low-pressure irrigation combined with computerized controls spelled an annual savings of 50 percent for this California country club.

Every year for the past 34 years, this has been uttered in Lakeland, Florida, when spring training opens for the Detroit Tigers, and a close relationship between the club and the city is rekindled.

Plants aren't the only resource for landscape managers. Here's how to turn old railroad ties into classy landscape features.

Evaluating employees is often done improperly or not at all. These guidelines will help in the evaluation process. First of two parts.
Introducing the art of application for maximum germination.

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The new Ryan® Mataway Overseeder® is simply better. Better results begin with the basics, like seed calibration. An easy-to-read chart on the Mataway Overseeder tells you the exact setting for pounds of seed needed per 1,000 sq. ft. There's no need for complicated, time-consuming formulas. Just look it up, load it up, select setting, and you're ready to go.

Accurate and Efficient Application.
Two-inch spacing between rows gives you a dense pattern for one-pass application. Gandy® precision metering and a disc-type seed delivery system places the seed directly into the slits for uniform seed/ground contact and maximum germination.

The result is a lusher, thicker lawn. And more satisfied customers.

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The new Ryan Mataway Overseeder is the only overseeder you'll find that gives you the flexibility to power rake, overseed, or to do both at the same time. It's so simple the seed delivery system can be removed with just four pins.
Front-wheel drive means better control and less operator fatigue. Seed flow stops automatically when crossing sidewalks and driveways.
A fingertip micro screw adjustment allows for precise depth adjustment. Clear seed tubes help you monitor flow and supply.

Ask for a convincing demonstration.

The Ryan Mataway Overseeder fits into any lawn care operation. Priced right and built to last longer, it's one of the most cost-efficient ways to stay ahead of your competition. And we'll prove it to you.

Call today or contact your nearest Ryan dealer for more information and a free test drive demonstration. You'll see why the new Ryan Mataway Overseeder is simply better, plus you'll receive a free pair of soft leather gloves.*

Call toll free 1-800-228-4444 for all the details.

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Fewer new homes for '87

According to Lawrence Chimerine, chairman and chief economist at Chase Econometrics, housing starts for 1987 will be around 1.65 million, about 200,000 fewer than in 1986. He was speaking at a seminar held by the National Association of Home Builders. Chimerine said he did not think the nation was headed for a recession, but neither would it enjoy an economic boom in the next one to three years.

Chimerine said four things are slowing purchases of new homes:
- A decline in incomes;
- Fewer high-wage, middle-income jobs like steel-working;
- Lower wages of jobs in the service industry like Burger King;
- The indebtedness of many families.

Pre-mixes: here to stay?

A change in the way pesticides are marketed is manifesting itself in the golf and landscape industries. Many chemical companies have started, or plan to start, selling pre-mixes—pre-packaged or in-the-can combinations of more than one chemical. Team from Elanco Products, a combination of benefin and trifluralin, and Rhone-Poulenc markets a combination of buttril and atrazine.

"Everyone in the landscape market is looking at pre-mixes," says Dan Stahl of Rhone-Poulenc. "The trend is toward lower cost and making use of generic materials, and pre-mixes are that. They are also easier to get on the market."

Pre-mixes provide the landscape manager with broader and/or better control; they eliminate possible mixing errors; and they reduce the number of containers to be disposed.

IPM unit created

Denver Leasing and Manufacturing and the F.A. Bartlett Tree Expert Co. have developed an innovative integrated pest management unit. The unit is a unique four-pump, four-mix chamber, four-reel, selective pesticide and fertilizer application device.

"This unit not only complies with federal and state regulations, but also provides the user with the latest technology in pesticide application," says Bob Smith of Denver Leasing.

The main tank carries only water. The operator mixes chemicals in any of the four chambers, and can select the appropriate strength and quantity for each particular situation. Quantities delivered can be from one ounce to 150 gallons.

For information, call Smith at (303) 422-7608 or write him at 6945 Indiana Ct., Golden, CO 80403.
The Berkeley Pump Company began in 1937, because the founders believed they could build pumps that were better, more dependable than any other.

Fifty years later that small company in Berkeley, California has become a major manufacturer of irrigation and water systems pumps of all kinds: centrifugal, submersible, vertical deepwell turbine and jet.

Today, the familiar orange color of a Berkeley pump is a reassuring symbol of reliable, long-lasting performance from farm to turf and in communities and industries across the nation.

Berkeley has grown by never forgetting its founding principles and its commitment:
- To building uncompromised dependability into every Berkeley pump.
- To placing our customers first in everything we do—from fast delivery to top-notch service.

You can bet we'll keep that Berkeley tradition working hard for you as we move into tomorrow—and the years ahead!
Company installs sky-high plants in Houston

The Spencer Company, Houston, took its landscaping skills "to new heights" when it installed rooftop terraced gardens on the 48th through 51st floors of the Gulf Tower building in downtown Houston.

The extreme height of the project—police helicopters whiz by several feet from the gardens—presented some unique problems. Like winds regularly reaching gusts of 50 miles per hour.

Spencer installed plants able to withstand such conditions. Where possible, they have been positioned near walls and other natural windbreaks. The plants are watered by an automatic irrigation system under the supervision of a Spencer Company horticulturist.

The four terrace levels range in length from 25 to 150 feet. Each gets successively longer toward the top floor. Symmetrical plantings include borders of mondograss and plantings of nandina and dwarf yaupon.

BUSINESS MANAGEMENT

To lease or not to lease? That is the question...

Leasing used to be the right to use something for a specific period of time, after which you'd return it. But today, leasing can imply ownership.

With such little difference between leasing and buying, how do you make the decision? You look at the cashflow level of your business, says Fernando Bensuaski of Bensuaski, Delana & Luce in Boise, Idaho.

"The idea of leasing only makes sense to small businesses, if the cash outlay improves," Bensuaski says. With both leasing and buying, the purchaser usually has to pay maintenance costs, interest and depreciation of the equipment. When the differences between leasing or buying are broken down, the only real difference is the down payment which is needed in buying. Although some leases will cover maintenance, the purchaser still ends up paying in the way of depreciation."

Bensuaski says that before making a decision, a person should ask these questions:

• Should we have the equipment at all? Small businesses often embark on a decision without clearly thinking through this point.

• Can we afford it? New equipment should pay for itself. Seek the advice of a good accountant and banker.

• Can we budget to pay for the equipment? Landscaping is seasonal, which makes it difficult to make payments some months.

• Are we creating too much leverage? Fast growth of a company can create a large debt. If things suddenly slow down, the company could go broke.

• Good cash management is the key to a successful business. "A lot of people confuse cash with profit," he says. "It's not the same thing. You can have a very profitable company, but be broke because it's all tied up in equipment or worse, you tie it up in receivables."

CONFERENCES

OPEI Expo will 'go international' later this month

Attendees and exhibitors at the International Lawn Garden & Power Equipment Expo '87 can expect a larger international contingent than last year when delegates from 37 countries attended the show.

According to Basilio Liacuris, director of international programs, pre-registration indicates a strong showing from Canada, with a number of European countries close behind. Government representatives from England, Italy and Venezuela will also attend the show, being held in Louisville, Ky., July 27-29.

Liacuris attributes the expected international attendance increase to more support from exhibitors through promotional mailings, Expo advertisements appearing in 171 countries and a greater awareness of the event, now in its fourth year.

The show floor for the Expo, sponsored by the Outdoor Power Equipment Institute, will be expanded to 260,000 sq. ft. this year.
PESTICIDES

No evidence linking 2,4-D with human cancer, EPA says

The U.S. Environmental Protection Agency has yet to see evidence linking the herbicide 2,4-D to human cancer. It has tentatively given the compound a Category C classification.

The classification means the compound is a "possible human carcinogen with limited evidence of carcinogenicity in animals," says Doug McKinney, who was the EPA's special review manager for 2,4-D at the time the classification was announced.

The classification was made after the EPA's 2,4-D peer review panel completed a literature survey for 2,4-D.

A category A classification would mean the compound is a human carcinogen. Category B would mean there is cause for concern of carcinogenicity. Category C means there is some possibility of animal carcinogenicity, McKinney said, but the data is inconclusive.

The review panel's work will be examined by the EPA's Scientific Advisory Panel, according to McKinney. That panel will either agree with the review panel or ask for more information. The advisory panel was scheduled to meet June 25.

A Canadian panel, meanwhile, concluded there is no conclusive data linking 2,4-D to cancer in humans or animals. The Expert Panel Report on Carcinogenicity of 2,4-D, dated March 23, prompted the Ontario Ministry of the Environment to remove a moratorium on the introduction and use of new 2,4-D products.

"Overall, the panel concludes that the existing animal and human data are insufficient to support the finding that 2,4-D is a carcinogen and, consequently, finds insufficient evidence to conclude that existing uses of 2,4-D in Ontario pose a human health risk," states the report.

"I think they've done a pretty good job trying to review all the studies," notes Greg Richards, chemical products manager for Lesco, Inc., Rocky River, Ohio. "It doesn't seem to be all politically motivated."

Even if the EPA does change the product's user status at some time in the future, Richards said, "At least this (scientific approach) gives us some more time to develop other products that can do the job of 2,4-D."

"As time has gone, their (the EPA's) actions in this manner have gone along in a careful pace," said Dr. Wendell Mullison, consultant to the Dow Chemical Co. "The fact that they're doing this is very optimistic."

—Elliot Maras

BUSINESS MANAGEMENT

Drugs and other problems

It's a subject that's received widespread publicity. It's an emotional and controversial topic. But testing employees for drugs is necessary, says attorney Richard Lehr.

Operating mowers and other equipment is as dangerous as driving under the influence. "Do you want to wait for an accident?" Lehr asks. "You are strictly liable for the acts of your employees."

Besides drug testing, Lehr advocates thoroughly checking out an employee before making a hiring decision. Check the applicant's safety record, driving record and absenteeism. In the interview, ask applicants what they liked and disliked about their past supervisor. "A problem with an employee in the first year is a hiring mistake," Lehr says. "In the second year, it's a management mistake."

Lehr warns that another management mistake is using disclaimers. A disclaimer is a statement in a contract which says that the company is not responsible for certain mishaps.

"Disclaimers are not favored by the courts and are viewed against the writer of it—you," Lehr says.

Making promises or guarantees in advertising or contracts is also viewed against the company. "If you're using the term 'guarantee,' you may create a warranty," Lehr says.

1-2-3

W hile we may take precautions to prevent accidental poisoning from pesticides, we are often unprepared when such an occasion arises. It is critical to be prepared, especially since a life could be at stake. Remember these procedures. It could save a life.

1. If a victim has stopped breathing, commence artificial respiration.

2. Immediately call a poison control center or doctor.

3. Remove contaminated clothing, wash skin and fingernails with soapy warm water, dry and and keep the victim warm.

4. If the pesticide has gotten into an eye, gently rinse with clear running water quickly, continuing for at least 15 minutes.

5. If pesticides have been inhaled, carry the victim to fresh air and keep calm, in the event of convulsions, watch victim's breathing and protect the head from injury. Keep the chin up to keep air passages free.

6. If the pesticide is swallowed, induce vomiting in conscious victims. If unconscious, showing signs of convulsions or has swallowed petroleum or other corrosives, do not induce vomiting. The blunt end of a spoon, two tablespoons of salt in water or syrup of ipecac will induce vomiting. To keep vomitus out of the lungs, have the victim face-down with head lowered. If the victim can swallow after ingesting a corrosive poison, give as much milk or water as can be tolerated.

7. Take the victim to a hospital as quickly as possible.

8. Give the container and remaining to the doctor. If this can't be done, give him a sample of the vomitus.
DURSBAN* sends pests packing.

It's one of America's leading turf insecticides—and Lebanon has it!

Your green, green grass is prime real estate to chinch bugs, sod webworms, billbugs and other unwanted insect guests.

But their lease will be up when you use Lebanon's line of DURSBAN products. And your turf will look better too!

Keep pests on the move.

Lebanon Insect and Grub Control with DURSBAN gives efficient control of a broad range of soil and surface feeding insects on turf and ornamentals. Country Club 19-4-6 Fertilizer/Insect Control with DURSBAN gives you pest control plus the essential nutrients you need to grow thick beautiful turf.

Both of these easy-to-use granular DURSBAN formulations can be applied with any spreader, just water-in according to directions and those troublesome pests will be sent on a permanent vacation.

Start making your turf prime real estate for you.

Call our Greenline today at 1-800-233-0628, in Pennsylvania call 717-273-1687, for more information on our complete line of premium quality fertilizers, combination products and straight chemical products.

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* DURSBAN is a registered trademark of The Dow Chemical Company.

INDUSTRY

Imperial agrees to buy Stauffer

Imperial Chemical Industries says it has agreed to purchase Stauffer Chemical Co. from Unilever for $1.69 billion in cash. Unilever acquired Stauffer just last year when it purchased Chesebrough-Ponds.

ICI's primary interest is in Stauffer's agrochemical operations, which accounted for half of the company's $1.3 billion in sales and $113 million in pre-tax profit in 1986.

According to Ray King, who handles investor relations for ICI, the company "has been approached by several entities" interested in purchasing Stauffer's specialty and basic chemical operations, which ICI plans to sell, but "we don't feel constrained to sell."

According to Stauffer's Greg Bushman, the Stauffer-ICI deal was due to close on July 9.

King says the company will evaluate Stauffer's operations and management in the coming months, but as yet it is too early to tell if any changes will be made at Stauffer.

Unilever will use money from the Stauffer sale to pay back some of the debt from the Chesebrough purchase.

CHEMICALS

Sandoz names new pre-emergence herbicide

Sandoz Plant Protection Corp. has named its new pre-emergence herbicide Blockade. The herbicide was developed for use on turf and ornamentals.

University trials and Experimental Use Permit (EUP) demonstrations for the herbicide, technically known as prodiamide, showed it to provide long residual control of common turf weeds.

Scheduled for release in 1988, Blockade has a limited water solubility and low volatility. This year the herbicide will undergo further trials and EUP demonstrations.

SEED

High demand hits seed crop hard

Although the 1986 seed crop was average for most varieties, high demand quickly reduced the nationwide supply of turfseed. Jerry Pepin, Ph.D., of Pickseed West predicts the '87 crop will only be slightly better for most varieties.

"The demand for turfgrass has sky-
Surflan. Roundup. Mix them together, and you’ve got control that knocks weeds down and keeps them down. Three times longer, in fact, than Roundup alone.

That’s what landscapers all across the country are now finding. They are getting better weed control and more satisfied customers. And they’re saving time and labor costs because they’re applying just once.

With a Surflan/Roundup tank-mix, you get complete control of over 50 different weeds—including such tough species as crabgrass, barnyardgrass, chickweed, spurge, johnsongrass and foxtail. And Surflan won’t harm your nearby landscaped areas, either. It works with little or no lateral movement.

Join the growing list of satisfied users. Add Surflan to your Roundup and stretch your weed control three times longer. See your Elanco distributor for Surflan. Or call toll-free: 1-800-ELANPRO.

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