



per mower.

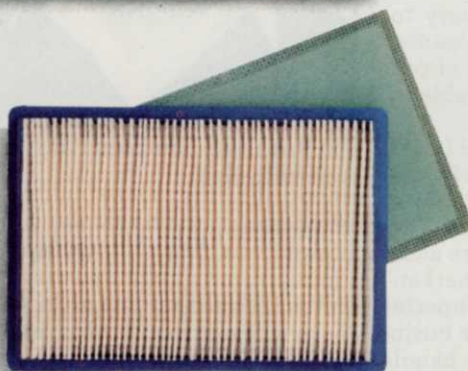
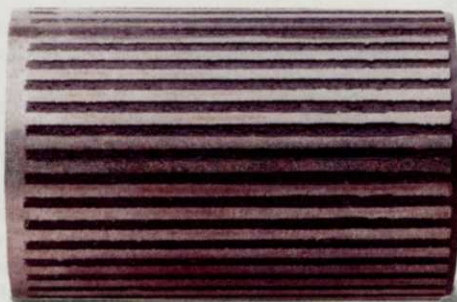
They feature our sure, easy-start new choke-a-matic Flo-Jet carburetor which insures consistent fuel flow, even on hills. And they come with our LubePower oil system which thoroughly lubricates internal components on slopes that can be safely walked on with a mower.

TOUGH BUT QUIET.

I/C engines are 50% quieter than previous Briggs & Stratton engines. Thanks to our Super Lo-Tone muffler and new internal component package. These engines are perfect for hospital zones and other quiet areas.

DUAL-ELEMENT AIR CLEANER.

Our extra-capacity dual-element air cleaner is so good it even exceeds automotive standards for efficiency. Its double filtering action insures that only the cleanest air gets through to the carburetor to give maximum engine life. The larger size makes service less frequent, too.



MAGNETRON® ELECTRONIC IGNITION.

There's none better. Never needs adjusting, and it'll last for the life of the engine.

UNBEATABLE WARRANTY AND SERVICE SUPPORT

There are plenty of additional commercial features as well. And some important intangibles. Like our 2 + 5 warranty — the longest in the business. Or our more than 30,000 qualified service and parts centers conveniently located throughout the world.

I/C engines. The long distance runners from Briggs & Stratton. For details just call your Briggs & Stratton representative.



tightly surrounding the green.

Sixteen is a birdie hole, a 569-yard par five, that typically plays downwind.

Number 17, the course's shortest par four (354 yards), requires a perfect tee shot for an approach to a shallow, hard-to-hold green.

The finishing hole, a 434-yard par four, is a severe right dog-leg, where an idyllic tee shot is required to reach the plateau green.

The smallish greens average just 4,800 square feet. Southern Hills is no picnic for both pros and 900 members, who average 30,000 rounds yearly on the 175 acres.

Public relations

Randquist, on a tour of the course, knows most faces he passes. That's intentional. "I eat lunch with them every day, which I feel is a real positive public relations move," he says.

His monthly meetings with the greens committee run smoothly, he says, provided he's done his homework.

"I give a report that highlights the major things we did, the projects we're working on," he says. "I give a future report where I break things down into 30-day, 60-day, and 90-day projects. As long as I give reports

'I love the work, I love the game of golf... I guess my only regret is the fact that I don't get to play enough. (But) being a player and involved in the maintenance end, I see things that I didn't see before. It makes it hard for me to concentrate.'

—Randquist

and stay organized, the meetings go smoothly."

As long as the club thrives, Randquist is in an enviable position. He has carte blanche over purchase of equipment and supplies, hiring and firing, and employees' wages.

He has a crew of 14 with two assistant superintendents: John Babe and Scott Mendenhall. Jim Lucius is the club pro.

Quiet efficiency

The 1982 PGA official program offers this description of Randquist: "quiet efficiency."

It's an apt account of the reserved Oklahoman with the gentle eyes and mild disposition.

He knows the game, he knows every inch of Southern Hills, he

knows his capabilities.

His programs work well but you'd never see him pat himself on the back. The members, who hired him in December of 1979, do plenty of that.

He reseeded all greens in September, 1984, with Penncross bentgrass and little fanfare. He's nurtured those greens through the intense heat of an Oklahoma summer.

He has the course playable 12 months a year despite the unpredictability of an Oklahoma winter.

Southern Hills continues as one of the country's top courses under his superintendency. Not bad for a guy with a degree in metallurgical engineering. **WT&T**

A super's view on golf: then, now, tomorrow

Bob Randquist, superintendent at Southern Hills Country Club, Tulsa, Okla., has 16 years experience on golf courses. In that time, he has developed ideas on many topics. Here's a nutshell report:

Wages: "My feeling about my crew is that I want to pay them enough to keep the ones I want to keep."

Chemicals and supplies: "We buy in January and February to take advantage of the discounts. With the financial position of our club, we're fortunate to be able to do that."

GCSAA: "The real core of information for anyone in the turf business. GCSAA has always been in the forefront with its research. The meetings are a great chance to meet people, share and exchange ideas, find out the latest thing on the market."

Agronomy degrees for superintendents: "It's more important that people in the business have a degree in something. It shows they've handled the work. But not



Bob Randquist, Southern Hills club superintendent.

having a turf degree has never hampered me."

His job: "It would be real difficult to leave here. One of things that attracted me was the fact that since Southern Hills was built (1935, with Perry Maxwell as architect), it's only had five superintendents and the one before me was here only two years. That shows stability."

Enjoy most about job: "No question—being outside."

Enjoy least about job: "The variability of golfers. We try to walk that line where we make the majority of the players happy."

Biggest challenge: "Getting maximum production from employees: doing it economically but doing it first class."

Another challenge: "Making the general golfing public aware of our efforts and our role in the game. We've got to do a better job. The golfing public has no idea of how important a superintendent is."

—Ken Kuhajda



Frank J. McDonald, Director of Marketing
Cushman Division, Outboard Marine Corporation
Lincoln, Nebraska

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Team up the Cushman Turf-Truckster™ vehicle with one or more of a half-dozen specialized turf care attachments, and you can aerate large or small areas, haul equipment and materials, dump sand, spray, seed or top dress. And, switch from one job to another quickly with the Cushman exclusive "pin-disconnect" system.

The Cushman Turf-Truckster™ vehicle offers plenty of power with the OMC-built 22-hp engine. Choice of 3-wheel or 4-wheel models. And a ground-speed governor control for uniform application over uneven terrain. The Turf-Truckster also rides over fine turf areas without damage to the turf.

No single turf vehicle lets you accomplish so much day after day, year after year.

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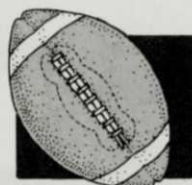


"OUR REPUTATION IS BUILT TO LAST"

EVERYTHING'S COMING UP ROSES

Improved drainage and timely renovations allow The Rose Bowl to head into its 64th season with its best face forward.

by Kent Kurtz, Ph.D.



William L. Leishman didn't realize on that warm August afternoon in 1900 that someday his dream would be

enjoyed by 75 million people annually. Not on that day when, as president of the Tournament of Roses Association, he hiked the dusty Pasadena hills and looked down on the Arroyo Seco.

He saw a city dump. Also, he saw a rocky area that might be a good place for a football stadium.

Now 85 years later, Leishman's son Lathrop and two grandsons are members of that same Tournament of Roses Association.

Lathrop accompanied his father by train to New Haven, Conn., to visit the famed Yale Bowl where the Rose Bowl dream took shape. The elder Leishman, impressed, said: "This is the kind of stadium we should have in Pasadena," his son remembers.

William Leishman's dream became reality in 1922. He, architect Myron Hunt and builder William Taylor gave the people of Pasadena a football stadium in the Arroyo Seco. Not a bad seat in the house. That trio was determined to bring the game to the spectator.

That's one reason the Rose Bowl hosted the 1984 Olympic soccer finals and showcased that sport to the largest U.S. audiences ever. The playing surface impressed the World Soccer Federation which gave it a 98 rating (100 being the highest).

That's just part of the versatility of The Rose Bowl. Name it and this stadium's seen it. Concerts, religious events, holiday celebrations, motocross, swap meets, even the location for commercials and movies. And, don't forget, it's a football field, a

**Dr. Kent Kurtz on the
Rose Bowl surface.**

**A packed—and beautiful—
Rose Bowl.**





**CUT A BIG CHUNK OUT OF
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LIMIT SLOWS GRASS GROWTH FOR UP TO SIX WEEKS.

Monsanto, the company that brought you Roundup[®] herbicide, now brings you another important turf management tool. LIMIT turf regulator is the guaranteed way to slow the growth of bluegrass, fescue, and ryegrass for up to six weeks.

LIMIT BUYS YOU TIME IN YOUR BUSIEST SEASON.

Five years of testing by Monsanto and turf managers have proven it: LIMIT can reduce *by half* the time you spend trim-

ming and mowing treated areas.

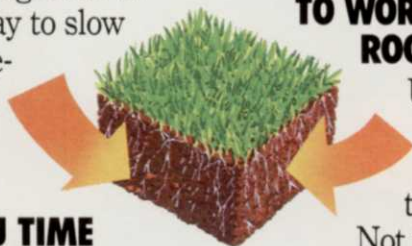
LIMIT buys you time. Time your crews can use for priority projects, especially in the spring.

THE ONLY TURF REGULATOR TO WORK THROUGH THE ROOTS.

Unlike other turf regulators, LIMIT works through the roots.

Not through the foliage.

The result? You can spray LIMIT earlier. Only LIMIT works before green-up, as well as after. It fits your schedule. Not the other way around.



You know them: all those places where cutting grass is a big headache. And a big time-taker. Hillsides. Roadsides. Wet spots. Bunkers. And pesky trim spots like plantings, monuments and fences.

The places where you wish the grass would grow nice and slow. The places where, sure as grass grows, you need LIMIT[®] turf regulator.

ALL KINDS OF TURF MANAGERS GIVE LIMIT HIGH MARKS:



FRED TRAUT
Grounds Supervisor,
Sheppard and Enoch Pratt Hospital,
Baltimore, MD



"...on real steep, hard-to-mow slopes, LIMIT reduced equipment usage, the hazard to my employees...and my labor of mowing."



JOE KOSOGLÖV
Golf Course Superintendent,
Hillcrest Country Club,
Indianapolis, IN



"We use LIMIT in areas that require a lot of handwork. I'd recommend LIMIT to any golf course superintendent spending too many hours in areas he'd rather not be."

Best cutting jobs by half.

THE ONLY TURF REGULATOR THAT DOESN'T MIND THE RAIN.

Root uptake of LIMIT also means there's no wash-off worry. Let it rain. You can actually apply LIMIT while it's raining.



LIMIT IS SAFE EVEN WHEN YOU OVERLAP.



LIMIT is safe to turf, too. It's formulated to get consistent response and quality even where there's unavoidable overlapping; unlike other turf regulators that cause overlap browning.

What's more, LIMIT is harmless to ornamentals. And LIMIT won't stain monuments, sidewalks, or other fixtures.

EASY TO MIX, EASY TO APPLY.

Adding LIMIT to your current spraying program is easy. No special equipment is needed.

Plus, LIMIT can be tank mixed with both fertilizer and commonly used herbicides, so you get one-pass efficiency.

And, compared with other turf regulators, LIMIT is unusually tolerant of mixing errors.



MONSANTO GUARANTEES LIMIT WORKS.

This Spring, cut your toughest mowing and trimming jobs by half.

Monsanto guarantees that spraying LIMIT before seed-head will slow grass growth for up to six weeks. *Safely.*

Try new LIMIT where you want to mow and trim less. A lot less. And give your crew better things to do.

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BY **Monsanto**



DICK STEDMAN
President
Wright Lawn and Tree Care, Inc.
Clarence Center, NY



PHIL PIRRO
Lawn Service Manager,
Landscaping, Inc.,
West Hartford, CT



"We've had phenomenal results with LIMIT at two cemeteries. For the first time, we can tell our accounts we have a product that will consistently work."

"With LIMIT, I cut my mowing in half and freed up my personnel to do more detail work that my customers notice."

As sure as grass grows, you need LIMIT.[®]

- One application controls growth for up to six weeks.
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- Reduces mowing and trimming by half.
- Saves you valuable manhours.
- Fits your work schedule—apply before or after green-up.
- Will not wash-off—rain actually improves uptake.
- Overlaps safely.
- Safe to ornamentals, sidewalks, monuments, or other fixtures.
- Can be tank-mixed with fertilizer and commonly used turf herbicides for one-pass convenience.
- Easy to mix and apply.
- Available in quart or gallon size.
- Monsanto guarantees LIMIT will perform as promised on the label.
(Always read and follow label directions.)



For more information, contact your local LIMIT dealer.
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Get a free quart of Roundup[®] when you buy LIMIT.[®]

For every 1 gallon of LIMIT[®] turf regulator you buy between November 1, 1985 and April 15, 1986, you get 1 quart of Roundup[®] herbicide free! This purchase may include any combination of quart or gallon containers of LIMIT. One quart of Roundup for each whole gallon of LIMIT purchased.



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- 14 Lawn care service companies
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Now, by combining your professional expertise and the unique features of Super Trimec,[®] you can reduce your cost of weed control and eliminate costly call-backs. Let me explain...

Everett Mealman, *President*
PBI/Gordon Corporation

How does the future look for the lawn care operator?

Most market research people agree that there is virtually unlimited growth potential for the lawn care industry during the next several years. But they always hasten to add that the key to profitable growth for the lawn care operator is going to be his ability to continually increase his efficiency... and since our future at PBI/Gordon is so closely linked to the future of the lawn care operator, we are continually searching for ways to improve the efficiency of the products we supply to the industry... as well as searching the world over for molecules that we can formulate into new products which can further contribute to increased efficiency.

What is the major bugaboo that challenges the lawn care operator?

It is weed control! You know it! Let one ugly weed appear and all of your

efforts to operate efficiently are down the tubes. It can mean a call-back which, according to industry estimates, can cost up to \$60, or it can even lose you a customer which can cost up to \$80 to replace.

The old philosophy from the ag-chemical field that 70% control is *total control* just won't cut it in the lawn care industry. You cannot abide anything short of honest-to-goodness total weed control. But by the same token you've got to achieve it within the framework of a program that still leaves you a profit.

Thus your goal is the lowest possible cost per acre for immaculate, weed-free turf that can be achieved without call-backs.



And this is precisely why our research scientists at PBI/Gordon spent so many years searching for the elusive formula that could combine different esters with the ability to form a complex with dicamba and hold it firmly in place... the formula that is now known as Super Trimec.

There's no doubt about it: dollar for dollar and acre for acre of immaculate weed-free turf, Super Trimec is the most efficient post-emergent broadleaf herbicide on the market... period!



ONLY PBI/GORDON



"One of the nice things about a morning constitutional is encountering a lawn service company out beautifying the neighborhood. Here I am, at the crack of dawn, watching a Suburban Lawn and Garden operator treat a lawn. Suburban has a very successful lawn service company and Don Tannahill, Suburban Liquid Lawn Manager, insists that Trimec is an important factor

in their success. He says that Suburban customers want nothing short of immaculate weed-free turf, and that Suburban management wants nothing short of worthwhile profits. Accordingly, Suburban uses Trimec to be sure both sides are happy."

Everett Mealman

Does this mean that Super Trimec is even more efficient than the old-reliable Classic Trimec?

Yes sir, that's exactly what it means. But let me make one thing clear. Super Trimec is not for amateurs. It's a professional product that needs to be handled in a professional manner. And, to express its maximum efficiency, it needs to be applied evenly at a rate that doesn't exceed label directions per acre.

So what about Classic Trimec? Will PBI/Gordon continue to make it?

Indeed we will. There's still a time and a place for Classic Trimec, just as there is still a place for 2,4-D. And because you're a professional, you'll know the time and the place to use both products.

Furthermore, we will continue our ongoing efforts to further improve the effectiveness of Classic Trimec and further reduce its cost.



Ask for Samples of these New Products from PBI/Gordon

Among the new products that have been developed and thoroughly tested by PBI/Gordon, and are now ready to help the Lawn care operator improve his efficiency are Ferromec™ a sprayable iron that produces turf

green-up within 24 hours, and Bov-A-Mura,® a natural organic activator that turns thatch into humus.

You'll be reading about these new products in the trade papers. But in the meantime, if you would like to have samples of them, simply write to us or call.

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Ask for Customer Service Department.

Inform us of bids to be let.

We will furnish detailed specs and names of distributors serving your area.

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Setting up the field for an auto race.



A police helicopter dries the field last New Year's.

grass field, and home of the UCLA Bruins and the New Year's clash between the best of the Big 10 and PAC 10. The so-called "Granddaddy" of bowl games.

The 1985 Rose Bowl game

Preparation for the Jan. 1, 1985 Rose Bowl game. Hectic. Full of surprises. Complications arose as winter storms dropped cold rains on Pasadena.

Renovation began with vertical mowing, aerifying, removing plugs, and sweeping. Perennial ryegrass seed, pre-germinated in 55-gallon containers, covered the field. Brushes carefully dragged about 110 tons of sand over the playing surface.

But 50-degree temperatures hampered germination and growth of the ryegrass seedlings.

The staff grew anxious as January 1 approached. It considered a polyethylene greenhouse over the field and using gas heaters to warm the germinating seed. Instead, someone suggested the new polyester field-covers. They soon covered the playing field.

Soil thermometers, checked daily, indicated temperatures under the covers averaged 62-65 degrees compared to 48-51 on the uncovered sideline area. This warmth pushed growth of the perennial ryegrass. Fertilization and mowing followed within two weeks.

Intermittent rains kept the field wet though. Calcium nitrate fertilizer could not be applied to the moist grass. The painting of the end zones and the center of the field would be difficult too. Help came from the Pasadena Police Department which volunteered the use of a helicopter to dry the grass.

Game day and everything came up roses. Credit the covers which provided a warm environment for the seed, and the sand topdressing for dry, firm playing surface for secure footing.

Improvements for 1985

But even after the success of the Rose Bowl game, basic problems remained. The biggest was drainage which for 63 years depended on a 24-inch crown in the center, turtle-backed to the sidelines. Soil clogged the few catch basins along the sidelines. An engineer and a soils specialist joined the field improvement effort. They collected water infiltration and percolation data.

In the summer of 1985 test holes and soil samples showed that two feet beneath the turf surface lay the original Arroyo Seco gravel and sandy soil, good drainage material. However, the Rose Bowl topsoil contained a mixture of clay, silt, non-decomposed sludge and manure. Sod rooted in clay, installed prior to the 1984 Olympics, topped everything.

To provide drainage through these layers, workmen using backhoes dug one-by-two-foot trenches, spaced about 15 apart, the length of the field. The trenches were backfilled with medium grade sand. To help drainage further, workmen flushed the old catch basins with high pressure fire hoses and built four new basins.

With drainage in place, the Rose Bowl was ready for a motocross.

The renovation

Even though polyethylene and soil covered areas where motocross competitors battled, UCLA's first football game three weeks later demanded a complete field rebuilding.

Workmen removed the sod and all soil and debris. Roto-tillers churned the field to a depth of six inches before it was rough graded. Care was taken to roto-till lengthwise to maintain the drainage sand slits. Some humus, however, was added to these slits to ensure even turf color throughout the field. Next came installation of a 24-inch crown and final grading.

It took two days to lay Santa Ana bermudagrass sod. Frequent irrigation knitted the sod to the surface.

This particular sod had been contract-grown for the Rose Bowl by Pacific Sod, Camarillo, Calif. A special black turfgrass colorant sprayed over the stolon surface accelerated growth. The colorant absorbed heat. Company officials believe it resulted in a 25-to-30 percent faster spread of the bermudagrass.

Improved drainage and the well-thought-out field conversion provided the Bruins with a first class facility in 1985.

The challenge now? January 1, 1986.

The staff

All requests for events at the Rose Bowl must be directed to Constance Borg, Rose Bowl event coordinator. The Pasadena Board of Directors (city council) then must give its go ahead.

If the Board approves the event request, a contract (covering all phases of the activity from field maintenance to security) is drawn up and reviewed by acting Rose Bowl director Donald Hunt.

Rose Bowl field supervisor Richard Gonzales works directly under Hunt and oversees daily maintenance functions. Gonzales' staff performs the mowing, fertilizing, watering, aerifying, top-dressing, and other field preparations.

For large events—the Rose Bowl game, for example—a second turfgrass supervisor may be required. Pasadena's golf supervisor George Adge and his staff help with special field preparation, spraying or major renovation projects.

Coordination of maintenance schedules, advisement on agronomic practices, and evaluation of new materials and products are handled by Dr. Kent Kurtz, Rose Bowl agronomist and turfgrass professor at Cal Poly Pomona University, who works directly with Hunt.

THE PROBLEM



BEFORE: This homeowner's lawn has been attacked by a turf fungus called "fusarium blight." It is a major problem attacking thousands of lawns throughout the United States. This disease affects weak lawns under stress and spreads rapidly, often wiping out the entire lawn!

THE SOLUTION



AFTER: The same lawn treated with Agro-Chem's natural and organic lawn program. Turf has completely healed itself naturally without seeding or sodding or the use of expensive fungicide treatments. The entire lawn has recovered to a beautiful healthy condition!

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You now have the ability to Control many lawn problems by:

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These Agro Chem products have been tested and proven by leading university studies.

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