FROM THE

n the last 35 days I have been home for five of them. I have been running around quite a bit recently, but here it is Thanksgiving week and I'm home and have a little time to reflect. As we enter the holiday season I give thanks and I have lots to be thankful for. Our growth, as and I have lots to be markful for. Our growin, as with the growth of our industry has been nothing with the growth of our industry has been nothing short of phenomenal. We created a publication that snort of phenomenal, we created a publication that adwer felt the market needed — a publication that addresses the needs of the professional grounds unesses the needs of the professional grounds manager of large, high traffic turf areas. Their needs are different from the landscape contractor who

are different from the landscape contractor who works on smaller areas.

I specification to be a part of it. I like to think of sport and filled it. I am delighted to be a part of it. Your loyalty in recognizing and supporting sportsTURF is proof that we saw this need and filled it. I am delighted to be a part of it. I like to think of ske to study and filled it. I am delighted to anticipate what you would like to study and st this need and filled it. I am delighted to be a part of it. I like to think of sport-sTURF as your magazine. Although we try to anticipate what you would like to Be in your magazine, we also invite your contributions.

It would be folly to think we at Gold Trade Publications could produce four staff for would be folly to think we at Gold Trade I would like to thenk our staff for while time without talented creative people. I would like to thenk our staff for while time without talented creative people. It would be folly to think we at Gold Trade Publications could produce tour publications without talented creative people. I would like to thank our staff for publications without talented creative people. I would like to thank our staff for publication without talented creative people. I would like to thank our staff for producing a publication we can all be producing a publication and commitment to producing a publication and commitment and com STUME as your magazine. Although we try to anticipate will see in your magazine, we also invite your contributions.

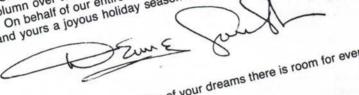
It would be folly to think we at Gold Trade Publications.

publications without talented creative people. I would like to thank our start for their dedication and commitment to producing a publication we can all be from their dedication and commitment from the all year long. I would like to turn this cinca you have been bearing from the all year long. eir dedication and commitment to producing a publication we can all be proud of.

Since you have been hearing from me all year long, I would like to turn this olumn over to our staff for their comments.

On behalf of our entire staff, I would like to take this opportunity to wish you on behalf of our entire staff, I would like to take this opportunity to wish you on behalf of our entire staff, I would like to take this opportunity to wish you on behalf of our entire staff, I would like to take this opportunity to wish you on behalf of our entire staff, I would like to take this opportunity to wish you on behalf of our entire staff, I would like to take this opportunity to wish you

column over to our staff for their comments. on penall of our entire stall, I would like to take this opportant and yours a joyous holiday season and a happy new year.



In the Christmas stocking of your dreams there is room for everything. Hope

they all come true for you. Wishing you cultivated hopes and landscaped dreams in the new year.

facil

It's not enough to love one in need—we must show it.

If you impart all the love in your heart, the whole world will know it. It's not enough to plant a seed—we must grow it. It's not enough to plant a seed—we must grow it.

It's not enough to love one in need—we must show it.

It's not enough to love in your heart the whole work

Hope everyone has a healthy and prosperous new year.



THE FRONT OFFICE

OPINION PAGE

A TEAM EFFORT



t's hard to believe that sportsTURF begins its fourth year of publication next month. With your help, we have charted new waters, raised new issues and spread the word on tools and techniques previously known by just a few inventive turf managers. By creating a vehicle to carry this information, we have hopefully provided ideas and tips that you have been able to apply directly to your work.

None of this would have been possible without your help. You have generously shared your expertise so that others can benefit from your experience. You have spent hours on the phone

with me going over your life stories, your innermost concerns, your reasons

for doing things the way you do and your hopes for the future.

Together, we have shared extremely valuable methods to help large turf areas stand up to the tremendous pressure placed upon them today. Each sports turf manager and golf course superintendent who has undergone my interrogation has helped nearly 20,000 fellow turf managers increase their effectiveness on the job. By acting as a team, we are making a difference. Now that we have cracked open the door to a wealth of useful information, we have to work even harder to achieve greater levels of professionalism.

All of us have worked very hard these past few years to improve our jobs. But we still have a long way to go. We must face the challenges even during the toughest times. We can't falter and accept compromises that provide only partial solutions to the problems we face every day. We have to fight to get others to understand the importance of finding and implementing these solutions.

We must share our experiences with each other. Only part of our education takes place in school, the rest has to come from trial and error and onthe-job experience. The sports turf industry can grow one person at a time, or it can grow as a whole, a team of players learning from one another. It was largely for this reason that many sports turf managers and educators asked us to start sportsTURF in the first place.

You won't find stories in this magazine about people who think they only have to work 40 hours each week. I look for those "driven" individuals who happily get up early in the morning, work late at night and give everything they can muster to their jobs. They are the ones to lead the sports turf market today and in the future. When they aren't working at their jobs, they are

volunteering their own time to help others.

Finally, it takes the support and understanding of our families to let us work these hours to help others, as well as ourselves. Employers must permit and encourage us to involve our families in our careers. We not only have to carefully schedule our time spent at work, we must also unfailingly schedule time for our families. Our families are on the team too. Neglecting our work or our families will only slow us down and prevent us from growing as we must to solve the problems facing us.

No team wins acting as an uncooperative bunch of individuals. The key to any victory is teamwork. The purpose of this magazine is to develop cooperation among all the players in the sports turf industry. To do this we need your help in every issue. Please make it a New Year's resolution to call and write me regularly. I am here to help you and to help others. This is your magazine. Use it for all it's worth. We have a huge task before us. There is little time to waste.

I wish you and your family a relaxing and pleasant holiday. May your family give you the time to watch at least part of each "bowl game." Not all teams have the luxury of playing on fields as good as the bowl game fields. Until they do, we have plenty left to do.

Bruce Shorte

EVENTS

CAL FNDAR

Maryland Turfgrass '88. Baltimore Festival Hall. Baltimore, MD. Contact: Maryland Turfgrass Council, Inc., Box 223, White Marsh, MD 21162.

North Carolina Turfgrass Conference and Exhibit. Winston-Salem, NC. Contact: J.M. DiPaola, Box 7620, North Carolina State University, Raleigh, NC, 27695, (919) 737-2657.

11-15 Cornell Turfgrass Short Course, Cornell University, Ithaca, NY. Contact Sharon Green, 20 Plant Science Bldg., Cornell University, Ithaca, NY 14853.

13-15 Turf Conference & Trade Eastern Pennsylvania Show, Valley Forge Convention and Exhibit Center, King of Prussia, PA. Contact: Dr. Thomas Watschke, Dept. of Agronomy, 16 Tyson Building, University Park, PA 16802, (814) 863-1613.

28th Virginia Turfgrass 19-21 Conference, Richmond Centre, Richmond, VA. Contact: J.R. Hall, Virginia Tech, Blacksburg, VA 24061. (703) 961-5797.

Southern Grounds & Turf Maintenance Exposition, Myrtle Beach Convention Center, Myrtle Beach, SC. Contact: South Carolina State Board for Technical and Comprehensive Education, 111 Executive Center Dr., Columbia, SC, 29210, 803-686-3737.

Pacific Northwest 21-26 Maintenance Management School, Fort Worden State Park, Port Townsend, WA. Contact: National Recreation and Park Association Pacific Region Office, 1600 Sacramento Inn Way, Suite 217, Sacramento, CA 95815, (916) 646-9050.

59th International Golf Course Conference & Show



February 1-8, 1988 George R. Brown Convention Center, Houston, Texas

♦ 30 Seminars ♦ Golf Championships ♦ Trade Show ♦ Annual Meeting

For Conference, Seminar or Exhibitor Information: 1-800/GSA-SUPT or 913/841-2240



Golf Course Superintendents Association of America 1617 St. Andrews Drive Lawrence, KS 66046-9990

Paints & Color



A single red and white rose graces the center of the Rose Bowl each year.

ports represent one of the largest industries in the American economy. Billions of dollars are spent each year for tickets, greens fees, television rights, corporate sponsorships and even legalized gambling. The stakes have become too high to leave such a valuable part of the American economy up to nature alone.

Stadiums and golf courses are the stages and scenery for many of these sporting events and the sports turf manager has become the stage manager. But unlike the stage manager of an auditorium or theater, the sports turf manager must work with the vagaries of nature to prepare his stage for major events. Not only must he install

and maintain the sports landscape to withstand unpredictable weather, he must also possess the skills to present spectators, television viewers and athletes with "their impression" of what a field or golf course should be even when conditions do not allow turf and plants to look their best. The sports turf manager is rapidly learning that colorants and paints are tools which enable him to satisfy the economic expectations placed on turf.

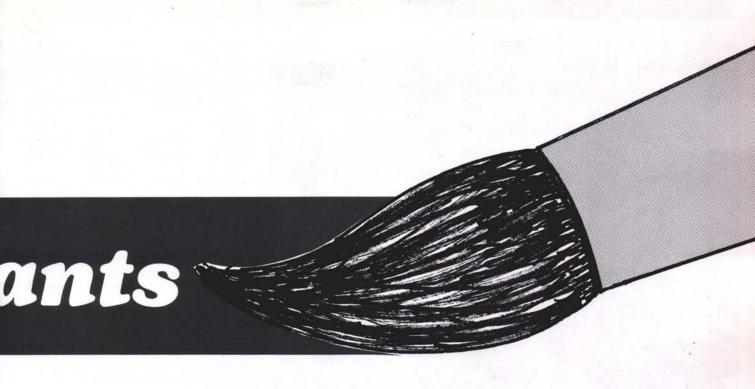
While paints and colorants are really products of the 1960s, they are only beginning to be used on a wide scale today. They originated where you might expect, on motion picture and television sets. Larry Krie-

ger was one of the first experts on turf and plant colorants in Hollywood in the late '50s. As owner of a small paint company in Los Angeles he frequently received calls from the studios during the winter when the California weather was clear and bright but the turf was dormant. While color motion picture film was developed in the late '30s, producers and directors were just beginning to make the most use out of color 20 years later. They needed a paint that would make the studio lawns as bright green as it would normally be in spring without causing permanent damage.

Krieger developed a combination of three to five different dyes in a water-soluble acrylic latex base to spray the dormant bermudagrass on the sets. Unlike previous attempts to color turf, his paint did not track or rub off the turf once dry. Krieger began experimenting with diluting the concentrated paint with water to lightly coat the blades of the turf with enough pigment to impart the right shade of green without clogging spray equipment or destroying the natural texture of the turf.

About the same time, President Dwight Eisenhower was attracting tremendous attention to golf. When the President visited Palm Springs in the winter to play the common bermudagrass fairways and Seaside bentgrass greens they were frequently a patchwork of tan and dull light green. Winter overseeding was in its infancy as were turf irrigation systems, so many of the courses were at the mercy of nature even though they had some of the best superintendents in the country.

To bring the courses up to presidential quality, some superintendents borrowed a few tricks from Hollywood and painted the greens. They discovered the paint had lit-



tle effect on the playability of the greens while it made a great impression on golfers attracted to the sport and the area by the president.

As the popularity of the sport spread and new resort courses were built in the Desert Southwest, superintendents passed on the techniques of painting turf to one another. Later, improved bentgrasses and ryegrasses combined with improved irrigation systems, challenged painting as a method of providing winter color to the courses. Nevertheless, painting dormant bermudagrass fairways or greens is still practiced at various courses in the Southwest.

With recent concern over water conservation and winter maintenance costs, some courses are returning to paints. "Courses with limited winter play or tight budgets can save the cost of overseeding, minimize their water use and cut back on maintenance and labor costs in the winter without closing," explains Jim Wellborn, marketing manager of Wellborn Paint Manufacturing Co. in Albuquerque, NM.

Superintendent Harold Vaubel at the Tournament Players Club at Starpass in Tucson, AZ, has become one of the leading experts in golf course painting in the Southwest. He paints the fairways of the elite. private course after his major tournament every October. "Only club professionals and members play the course in the winter," states Vaubel's assistant Bob Saltzman. "Water is just too precious here to overseed the fairways. We do overseed the tees with perennial ryegrass and the greens are Penncross bentgrass. Even though the fairways are painted, we mow them once a week and repair divots with sand painted with the same paint (Instant Spring from Wellborn)."

Green paint also had its stadium debut



Montana State University painted a blue, yellow and white logo on the center of its stadium field for its fighting bobcats.

in the Southwest. The Los Angeles Coliseum was selected in 1967 as the location of the first Super Bowl. The National Football Conference had just merged with the American Football Conference. The National Football League wanted to present a championship between the winners of both conferences and create a media event. The common bermudagrass in the Coliseum was dormant. NFL Commissioner Pete Rozelle wanted an impressive green field for the contest to be televised nationally. If the studios could paint the turf on their sets during the winter, the NFL saw no reason why it could not do the same for its important premiere at the Coliseum.

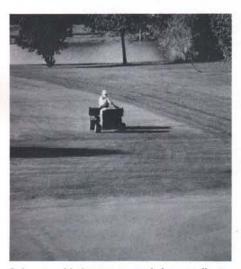
Rozelle borrowed George Toma, grounds manager for the Kansas City Chiefs who had gained a reputation for his work during the National Conference playoff at the Cotton Bowl, to prepare the field. Ironically, the field was not painted for Super Bowl I. Instead, Toma "woke up" the bermudagrass with calcium nitrate and used a mowing pattern to help highlight the field. When the next Super Bowl was held in the Coliseum, Toma did paint the field after seeing how golf course superintendents in the area used the paints successfully.

But green and white wasn't enough for the promotion-minded directors of the Rose

continued on page 16



The Rose Bowl field is touched up just prior to the Super Bowl by Rich Toma and his crew.



Colorant added to spray tank lets applicator cut down on overlaps and skips on fairway.

Paints and Colorants continued from page 15

Bowl in Pasadena. To make Pac-10 champion Oregon State University feel at home in the Rose Bowl in the '60s, they wanted to paint the goal line orange. After getting approval from the National Collegiate Athletic Association, a city crew mixed yellow and red paints together and added a third color to the field. Later, the sidelines were widened to 12 feet and painted with team colors each year.

In 1973, the local Jaycees took over the painting of the field for the Rose Bowl. Don Murphy, a Pasadena architect and member of the organization, took special interest in the project and started to design multi-

colored insignias for the end zones. He recruited local nurseryman Phil Ishizu to help with the painting.

"Colleges just didn't paint their fields in those days," recalls Ishizu, "especially not with designs like Don's. For the Rose Bowl between Stanford and Michigan we handpainted an Indian head and war bonnet in the Stanford end zone and a Wolverine in Michigan's. Each feather on the bonnet had to look as real as possible. The only experience I'd had before then was painting a large mural in high school. It was a real challenge to paint on turf."

For 15 years, Murphy and Ishizu have worked together decorating the Rose Bowl like football fields have never been painted before. "For the 50th aniversary of the Tournament of Roses, we decided to put something on the field other than lines and numbers. Don designed a vellow birthday cake with candles for the center of the field.' The next year four yellow roses were painted in the center. Finally, the now-famous single red rose bordered with white was designed. This rose has graced the center of the field ever since with one exception. During the Bicentennial, a shield containing stars and stripes replaced the rose. "We also painted eagles in each end zone,' recalls Ishizu. "Each eagle had 30 feathers!"

To help the Rose Bowl formulate all these colors, Decatrends, a Pasadena-based paint company, has worked closely with Murphy and Ishizu the past 15 years. Each year 400-500 gallons of paint are used. "First we outline the design with short lines, and then fill it in with up to three coats of paint," explains Ishizu. The process takes three or

more days. After the game, grounds manager Rich Gonzales verticuts the paint out of the Santa Ana bermudagrass turf overseeded with perennial ryegrass.

Toma and his son Chip, who are responsible for painting the Super Bowl and Pro Bowl for the NFL, work closely with Mautz Paint Co. in Madison, WI. "Some paints can damage grass," explains Toma. "The NFL expects us to leave each field we paint in as good or better condition than it was when we arrived. The paint company also has to be willing to make small batches of certain colors. For example, Mautz recently made the agua blue and orange paints for the Dolphins at Joe Robbe Stadium. They also supply the paint for the exhibition game held in Wembley, England. Once you build a relationship with a paint company, you stick with them.'

While each gallon of paint is diluted with two to five gallons of water for field decorations, it is diluted with roughly 15 gallons of water for coloring turf green. "You can't dilute it any more than that," says Krieger, "or the acrylic binder won't cause the paint to stick to the turf properly. Using less water than that really is a waste of money and you risk clogging the nozzles. You just don't need more than that." Krieger's Green Stuff has been used in the Rose Bowl.

The other thing Krieger stresses is application. "You can use an airless or even hose-end sprayer for small areas, but a boom sprayer works best for large areas. The sprayer must have a pressure gauge on the boom and an automatic shutoff to do a good job. The spray should be agitated constantly and pass through a 50-mess screen before going to the nozzles. It's also important to have a tractor with a tachometer so you can maintain a constant speed while spraying."

To prevent wind from disrupting application, Krieger lowers the boom to four inches from the surface, maintains a boom pressure of 40 psi, and travels at between three and five mph. He uses T-jet nozzles spaced ten inches apart. "The object is to know how many gallons per minute per nozzle you are applying. Each gallon of concentrate should cover between 4,000 and 5,000 square feet."

Coloring the turf is just one benefit of green paints explains Dr. Ed Kajihiro of the Opti-Gro division of Mantek. The company's Green-Em-Up (formerly Wintergreen) has been used primarily by stadiums, including the Rose Bowl, Candlestick Park, the Cotton Bowl, Gator Bowl and Liberty Bowl. "The leaf of the turf actually absorbs the paint," says Kajahiro, "that is why we recommend it be applied when the turf is dry. The thin, porous film reduces water loss from the leaves and protects them from cold. dry winds. It strengthens the cuticle (waxy, outside layer) of the leaf blade making it more flexible and resilient to wear. As turf goes dormant it loses the cuticle and be-

continued on page 18

Larry Workman, our head Field Applications Engineer, runs our Complaint Department. But we never get any complaints about Larry. He believes that if we've made a bad connection, we should be the first to know. And that if there's something else wrong with your sys-

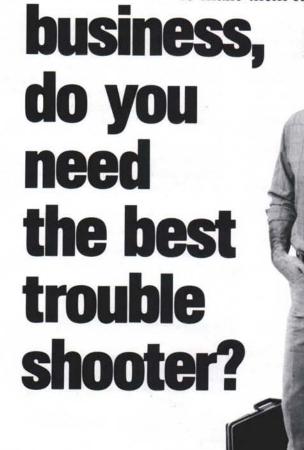
tem, you should be the first to know. No one is quicker than Larry at getting to the bottom of things and seeing how to make them right. Problems with system stress or design? With installation?

a pumping station? With installation? With the connection? Whatever.

Larry and his people not only find the answers to problems, they help us design better systems. For example, our unique Full-Circle Swing Joint eliminates the old problems of loose, leaky joints or over-torqued, split fittings.

Larry also solves many problems before they happen by giving free seminars and lectures all around the country.

So when you specify Lasco fittings, you get more than just the best PVC fittings. You get Larry's phone number. Ask your distributor.





Seven warehouses nationwide. Sales offices in major cities.

Anaheim, CA 92806

Circle 111 on Postage Free Card

Paints and Colorants

continued from page 16

comes increasingly exposed to weather and wear."

The paint, however, does not block out sunlight, its dark color absorbs it. The turf continues photosynthesis and respiration assisted by higher temperatures for a longer part of the day. "A bubbler is mixed with the acrylic base," explains Krieger. As the paint cures, the bubbler creates tiny pores in the film coating that allow small amounts of air and moisture to pass through." Kajihiro says that the smaller pores of the paint prevent disease spores (tiny, reproductive organisms) from attaching themselves to the surface of the turf. The coating is also flexible allowing the leaf to expand and contract with changing temperature.

Sal Genito, superintendent of grounds maintenance at Clovis, CA, School District, has used Mantek's paint to warm up the surface of the high school stadium field. "Barney Barron from Candlestick Park gave me the idea," says Genito. The paint protects the bermudagrass as it goes dormant while it speeds up germination of overseeded ryegrass. "It acts like a germination cover and costs less than \$150 for the whole season. The fact that it makes the stadium field green is almost a side benefit."

Genito also thinks the paint may speed

up spring transition of the bermudagrass. "My main goal is to protect the bermudagrass." Genito points out. He goes so far as to kill the ryegrass at the end of the football season so it won't compete with the bermudagrass in the spring.

A football field is roughly an acre and a half, but an eighteen-hole golf course may be 140 acres. Nevertheless, the cost of the paint needs to be compared to the cost of water, chemicals and labor needed to maintain overseeded turf. Obviously, athletic fields and golf courses with considerable play in the winter need an actively growing turf that can recover from divots and wear. But if it receives only limited play, paints may be a cost-effective substitute.

"Nothing stands out like a target better than dark green turf in the middle a dormant, tan driving range," says Wellborn. "Why overseed and maintain dormant target greens on driving ranges when you can paint them?"

Still some superintendents and sports turf managers prefer to do what they've been trained to do, grow grass. But, that doesn't mean they don't use colorants of some type. Spray indicators, colorants which usually last less than 48 hours are being used by more and more sports turf managers as part of their chemical program.

When a sports turf manager is applying

herbicides and fungicides designed to work in amounts of ounces per 1,000 square feet, the spray pattern becomes critical. Poorly calibrated sprayers or clogged nozzles can destroy the effectiveness of these expensive materials. Furthermore, when spray equipment operators can't clearly see where they have sprayed, they are likely to skip areas or overlap unnecessarily. The result is poor control or wasted chemicals.

Furthermore, operator exposure to pesticides or double and triple rates on turf caused by excessive overlapping need to be identified quickly. Colorants, when mixed with pesticides, show where the pesticide has reached and remains. They alert the sports turf manager that he has been exposed personally to these chemicals, something he might not be aware of without the colorant. They also provide an accurate indication of how well spray equipment and tanks have been rinsed following application. This extra precaution against unnecessary personal and environmental exposure to chemicals should alone justify the addition of colorants to spray mixes.

Unlike a paint, a colorant does not contain a binding agent that makes it adhere to and coat the turf. In fact, colorants should degrade rapidly when exposed to sunlight. They should also wash off the turf with dew or light irrigation cycle.

Meet the nation's leading groundskeepers and specialists at the Opti-Gro™ Athletic Field Maintenance Seminar

And get first-hand information on the latest techniques to improve the quality and appearance of your turf and arounds.

This comprehensive, 2-day seminar is designed to increase the effectiveness of your grounds care program and to optimize the return on your maintenance dollars.

For more information about the seminar and how to register, call TOLL-FREE 1-800-241-3302; in Georgia, call 404-952-0228; or write: Athletic Field Maintenance Seminar, Opti-Gro Division MANTEK®, 1775 The Exchange, Suite 300, Atlanta, Georgia 30339.

HAVE

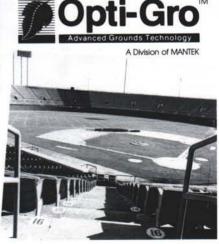
FIELD

Atlanta, GA January 11 & 12 Austin, TX January 18 & 19 Houston, TX January 21 & 22 Nashville, TN January 25 & 26

Raleigh-Durham, NC February 1 & 2 Lubbock, TX February 8 & 9 Indianapolis, IN February 15 & 16 Tulsa, OK February 22 & 23 April 11 & 12

Milwaukee, WI February 29 & March 1 Chicago, IL March 7 & 8 Cincinnati, OH March 21 & 22 The Meadowlands, NJ





Colorants need to be distinguished from dyes, explains Miller McClintock, a representative of Milliken Chemicals, manufacturers of Blazon colorant. "Dyes are designed to react with surfaces to which they are applied," he states. "For example, dye molecules react with fabric molecules in order to bond the color to the fabric. Colorants. on the other hand, should not react with turf. equipment, clothing, skin or surfaces they may contact during use." Colorants should also be highly soluble in water and chemically compatible with most turf management chemicals. McClintock suggests sports turf managers check the pH (acidity or alkalinity) of colorants before mixing them with chemicals that may be less effective when pH gets outside of a certain range.

Color concentration and the operator's perception of color are two important factors in selecting a colorant, says Roger Underwood of Becker Underwood, makers of Turf Mark colorant. "While one quart of colorant in 100 gallons of tank mix might be barely enough to color tall, thin turf," he explains, "it might be too much for a dense, short-cut green. Different applicators also prefer different amounts of colorant when they spray. Generally 16 to 24 ounces of colorant per 100 gallons of solution should meet most applicators' needs."

Blue colorants are the easiest to see and



Spray indicators enable applicators to see where they have sprayed herbicides and if they have achieved good coverage.

break down the fastest according to Greg Richards of Lesco, Inc., maker of Tracker. "Blue shows up well in both sunny and cloudy conditions. It is also very photosensitive and breaks down rapidly in sunlight." Richards says Tracker is recommended for application at eight to 16 ounces per acre. "We are introducing a one gallon size for turf managers who typically spray four or less acres at a time," says Richards.

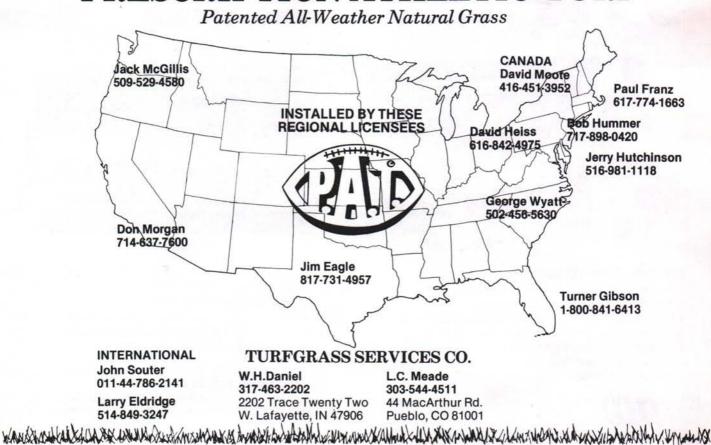
A quart size is the most convenient for athletic field managers, says Mike Thurow, general manager of Precision Laboratories. The company's Signal is available in quart containers that can be mixed without measuring in 100 gallon spray tanks. "We've also found a large number of schools, parks and golf courses use back pack sprayers when applying herbicides around fences, buildings and trees. The smaller container simplifies mixing to these smaller users."

Colorants are also used by sports turf managers and golf course superintendents to add beauty to lakes and water features. "Water in some areas of the country ranges from brown to green in color," says Mike Palmer, marketing manager of Rochester Midland in Rochester, NY. "This can sometimes reduce the visual impact of fountains or other water features. By adding a blue colorant to the water, the attractiveness of the lake, fountain or reflecting pool is increased."

In addition to the aesthetic value of lake colorants, a product called Aquashade has the ability to shade out subsurface aquatic plants before they reach the lake surface. The blue colorant, however, will not harm fish or desirable surface plants such as water lilies.

Despite his education and skills in helping nature take its course, today's sports turf manager must occasionally take matters into his own hands and add a little color of his own.

PRESCRIPTION ATHLETIC TURF



FINANCING IS SOUGHT FOR GEORGIA DOME

Despite a brand new PAT field at Atlanta-Fulton County Stadium, the Atlanta Falcons could leave the stadium after three more seasons and move to a proposed \$158 million domed stadium next to the Georgia World Congress Center in Atlanta. If the Georgia Stadium Corporation (GSC), a group of community leaders and investors, can raise \$110 million (70 percent) of the cost of the stadium through skybox and club seating leases, the remainder will come from public sources. The group began marketing the leases in October. According to GSC President Lowell Evjen, contracts for nearly half the leases have already been signed.

The announcement of the Georgia Dome was not a surprise. A plan to build separate football and baseball facilities was revealed a year ago. The Falcons lease expires in 1990. Charles Taylor, a spokesman for the team, said the current lease arrangement at Atlanta-Fulton County Stadium favors the Braves and the team would not renew under the same terms. There is also some speculation that the Braves could leave the stadium when its lease expires in 1993.

The Georgia Dome would be the world's largest cable-supported dome. The facility would seat 72,000 for football and 62,000 for concerts. This includes 5,800 club seats and 80 Executive Suites. Evien wants to meet GSC's preleasing goal by the end of this month so a complete financing package can be nailed down by next summer.

Construction is expected to take three years. To be ready for the Falcons 1991 season home opener construction would have to begin next fall. No mention of turf surface has been made pending final drawings from the architects. However, the dome is permanent. If natural turf were used, it would be the first attempt at natural turf indoors since the Astrodome.

The dome will be owned by GSC but managed by the Georgia World Congress Center. After 50 years ownership of the dome will revert to the state.

VOTERS TURN DOWN STADIUMS IN TWO CITIES

In November, voters in New Jersey and San Francisco rejected proposals for new baseball stadiums. Both the \$185 million bond issue for a baseball stadium at the New Jersey Meadowlands and an \$80 million public financing plan for a new stadium for the San Francisco Giants went down in defeat.

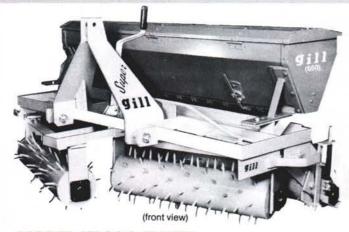
New Jersey voters refused to support a financial package previously passed by the state legislature for a 45,000 seat open air stadium to be located on a site adjacent to the Meadowlands Raceway, Brendan Byrne Arena and Giants Stadium. The New Jersey Sports & Exposition Authority hoped to use the new stadium to attract a Major League Baseball franchise as part of a plan originating in 1984. The Sports and Exposition Authority is also working on a financing plan that won't require voter approval.

Despite a successful year for his San Francisco Giants at Candlestick Park, Robert Lurie was thwarted by voters in his attempt to gain support for a new home stadium for the Giants after the team's lease expires at Candlestick in 1994. Local mayoral politics and disagreement over a site for the stadium clouded the stadium proposal. Nearby San Jose is wooing the Giants with a privately financed plan for a stadium if Lurie can't reach an agreement with San Francisco.

SPORTS INDUSTRY PEGGED AT \$47 BILLION

Sports is the 25th largest industry in the United States according to a recently completed study by Wharton Econometrics Forecasting Associates and Sports Inc. magazine. The \$47.2 billion dollar sports industry is bigger than the airlines industry, the hotel industry, agricultural service industry and the motion picture industry according to the survey. It trails the auto industry by just over \$2 billion.

MODEL SU-900/8 SPIKER WITH MODEL SU-660 SEE WITH MODEL SU-660 SEEDER



MODEL SU-900 SPIKER

- Aerates Soil. Punches holes in turf to provide entrance of water and air to grass root system.
- Angle Front Rollers. Front rollers are adjustable fore and aft to allow for desired crabbing for turf disturbance.
- Creates a Seed Bed With Loose Soil.
- Insures Good Seed Germination.
- Overseeding or Reseeding Without Damage To Turf.



(rear view)

 Any Seed or Seed/Fertilizer, Box Combination Can Be Mounted. Brush On Spiker Is Optional.

MODEL SU-660 SEEDER

Single Section Large Capacity Seed Box. Seed controlled by precision metered gears. Easy mounting and dismounting agitator to insure constant flow of seed.

FOR FURTHER INFORMATION OR THE NAME OF YOUR LOCAL DEALER, PLEASE CONTACT US AT:

ClèrVü INDUSTRIES, INC.

9621 BROOKFORD STREET, P.O. BOX 7324 CHARLOTTE, NC 28217-7324 704/588-1511