TOOLS OF THE TRADE OF A CONSERVICE OF A CONSER

As a professional responsible for the successful operation of a golf facility, you know what a tough job it is to stay ahead of the game every step of the way. The National Golf Foundation would like to help by providing you with some essential tools of the trade.

When you become an NGF Golf Facility Sponsor Member, a wealth of useful management tools is yours for the asking. Based on 50 years of golf course business experience, they will help your facility profit. And assure the future growth of the game.

An annual contribution of only \$100 will enroll you in our special program designed to keep club presidents, general managers, club managers, golf professionals and superintendents updated with a continuous flow of information concerning the ever-changing golf industry.

The Membership Package includes:

The Wedge. All members receive THE WEDGE, NGF's monthly golf market report. Packed with business updates, proven operational methods and the latest in golf course development activity, THE WEDGE keeps you on the leading edge of the changing world of golf.

NGF Information Hotline. A vast network of information concerning your business or any aspect of the game is never farther than the nearest telephone. The Hotline provides instant answers when you need them most.

Business Research. Members can participate in the Golf Facility Research Information Network and receive advance research information about golf facility operations and player participation. It's invaluable for keeping your facility in step with the times. The Professional Golf Shop. An authoritative

The Professional Golf Shop. An authoritative manual on operating a profitable golf shop. From shop design to merchandising to insurance, this comprehensive publication is a must for the profit-conscious manager.

Junior Golf Programs. This popular book tells how to build a program geared specially to the up-and-coming junior players at your club.

Easy Way To Learn Golf Rules. 100 copies of the NGF's 85-page, illustrated book of golf rules. This pocket-sized manual is for both beginner and seasoned golfer.

Clubhouse Planner. Members may request this comprehensive loose-leaf handbook which is a valuable tool for anyone planning to remodel, redesign, or build a new clubhouse. (Supply is limited.)

Bonus Offer. Become a Sponsor Member and receive the NGF/GCSAA Golf Course Maintenance Survey, a \$75 value which cross-references maintenance and operational costs at over 2,300 golf courses around the country.

Other membership benefits include a Member's Certificate and decal to show that your facility is fully committed to the future of the game and special Sponsor Membership discounts.

A **Sponsor Membership** in the National Golf Foundation not only yields direct benefits to your golf facility, but also adds valuable support in furthering the growth of the game. Clip and mail the membership application with your \$100 contribution today.

MEMBERSHIP APPLICATION

TITI F

NAME OF GOLF COURSE/CLUB MAILING ADDRESS		
TELEPHONE		

YOURNAME

As an NGF Golf Facility Sponsor Member, our golf course/club would prefer to receive membership benefits as indicated below (please check appropriate box):

- □ Full Membership Package including FREE NGFGCSAA Golf Course Maintenance Survey.
- Full Membership Package plus optional Clubhouse
 Planning Guide.
- Please send only our Membership Certificate and our free issues of THE WEDGE.

ANNUAL MEMBERSHIP CONTRIBUTION: \$100

The National Golf Foundation, founded in 1936, is a non-profit organization dedicated to the growth and development of golf. Today, NGF has over 2,500 Sponsor Members.

Please forward your membership application and contribution to:



200 Castlewood Drive, North Palm Beach, Florida 33408 305-844-2500



ARSENAL". THE VEGETATION CONTROL BREAKTHROUGH EVEN A MOTHER CAN LOVE.

Controlling vegetation along railroads, highways, utility and industrial rights-of-way is not only necessary for safety. It's required by law. The problem has been that many herbicides were as tough on the environment as they were on vegetation. That's why Cyanamid developed ARSENAL* herbicide. Its advanced chemistry is environmentally sound as well as effective.

WHY ARSENAL IS EASY ON THE ENVIRONMENT.

Because of its unique mode of action, ARSENAL, when used as directed, has no harmful effects on mammals, bees, fish, birds or earthworms. Because ARSENAL is non-volatile and does not move laterally in the soil, off-target vegetation is unaffected. ARSENAL is nonflammable, so it poses little fire hazard. Unlike tank mixes, ARSENAL introduces only one biodegradable product into the environment. And it's applied only once during a season, resulting in a lower chemical burden.

CONTROLS MORE UNDESIRABLE VEGETATION.

ARSENAL has demonstrated control of a broad spectrum of weeds, vines and brush species. Tests in southern states showed that ARSENAL alone (at rates of two quarts per acre) out-performed several tank mixes for annual and perennial weed control. Even more impressive, ARSENAL was most effective on difficult species like Johnsongrass, trumpetcreeper, kudzu and red maple.

ONE APPLICATION GIVES SEASON-LONG CONTROL.

ARSENAL gives you full-season control for up to eight months in temperate climates. It fits your spray schedule, because it can be applied at any time Always read and follow label directions carefully.

> TOUGH ON WEEDS. EASY ON THE ENVIRONMENT.

Circle No. 101 on Reader Inquiry Card

during the growing season. ARSENAL controls not only existing vegetation, but also new weeds that germinate after application. So you get residual control for the rest of the season. On hard-to-kill vegetation, ARSENAL keeps working on the roots until complete control is achieved. In spray solution, ARSENAL is stable for several days. That means no waste due to decomposition, and no chance of underdosing target vegetation.

control, including th	nese tough species:
Johnsongrass Trumpetcreeper	Blackberry Bindweed
Poison ivy	Canada thistle
Greenbriar	Foxtails
Redvine	Red maple
Kochia	Kudzu
Multiflora rose	Sumac

DUAL ACTION CONTROLS IN A WHOLE NEW WAY.

Unlike most other herbicides, ARSENAL is absorbed through both roots and foliage to stop new cell growth. Vegetation absorbs ARSENAL in less than two hours, so rain won't wash off your investment. Within four hours, plant growth ceases. In perennials, ARSENAL translocates thoroughly in the roots to prevent regrowth. This unique chemistry makes the visible results of control more gradual. In some vegetation, loss of color and other outward signs may not be apparent for weeks after application. After a year or more, returning vegetation is mainly desirable annual grasses and legumes.

ARSENAL IS RIGHT FOR YOUR RIGHTS-OF-WAY.

On railroad, highway or industrial rights-of-way, around power substations, signal boxes, bridge abutments, lumber or freight yards — wherever you need annual total vegetation control, ARSENAL is the smart new choice for the job.





Royal treatment

Give your greens a regal look with Jacobsen

Want greens fit for tournament play? Jacobsen Greens Kings and Greens Mowers give them the royal treatment.

Greens King IV (foreground) follows the greens' contours. Fully articulated, individually controlled reels let you maneuver around the edges. Reels steer in the direction turned—so there's no drag, scuffing or streaking. Power backlapping, without disassembly, saves sharpening time and insures a quality cut. Convenient foot pedal delivers smooth, variable speed control.

The Jacobsen Greens Mower (background)—first on the green for over 60 years! It offers you a rugged frame for durability and precision. Yet the Greens Mower is lightweight, perfectly



Jacobsen Division of Textron Inc.

Engineered from the ground up.

Circle No. 117 on Reader Inquiry Card

balanced and easy to handle. It delivers the smooth tournament quality cut demanded by pro golfers.

So get the Jacobsen Greens King or Greens Mower. And give your greens the royal treatment. Lease and finance plans available.

Jacobsen Division of Textron Inc. 1721 Packard Avenue Racine, WI 53403 J94

Towing the Line

A preventive maintenance plan is the cornerstone of Wayne Poe's streamlined program at First Colony.



Steve Poe mows around a man-made lake with a Deere F910.

n the last five years Wayne Poe has hired more than 60 grounds maintenance workers and purchased dozens of mowers and a fleet of tractors. He's trying to keep up with the expanding grounds maintenance duties of a rapidly growing planned community called First Colony in Sugar Land, about 10 miles west of Houston, TX.

Poe moved to Sugar Land in 1967 to be a farm manager for a corporation that owned about 4,200 acres of farm and pastureland. In 1972 the corporation sold the land to Sugarland Properties Incorporated, a land development organization that intended to create a planned community where Poe had been running cattle.

He stayed on as grounds maintenance manager for the new company and sometimes smiles at the irony of his new position.

"I decided it would be easier to change from farming and ranching and try to make the grass grow where before I tried to kill it all the time," Poe says.

Sleeping giant

For the next 12 years Poe and a crew of four workers handled the grounds maintenance duties while Sugarland Properties acquired nearly 10,000 acres of land and completed a master plan for controlled development of residential, commercial and retail store areas in what would someday become a city of 100,000 people.

"We had one push mower and two 1958 John Deere 730 tractors in those days," Poe reminisces. "Then one day in 1980 our executive vice president said to me.'You better start buying some equipment because in 12 to 18 months you're going to have about a hundred people out here mowing grass.' At first I laughed. Then I asked, 'Is it really going to move that fast?' And sure enough, within 18 months we had around 80 employees on grounds maintenance. Now I have 65 people in my crew and the commercial division has another 28. We can have as many as 115 people working out here."

The Sugarland crew mows about 400 acres every week and keeps it clear of trash. The people work five 10-hour days a week, including 10 hours of overtime. They get an hour for lunch and two weeks of paid vacation.

Poe fills in with part-time help during the summer vacation months.

Poe had no trouble finding people. He said people still come in every day looking for work. But he did have some problems finding people who shared his concern for preventive maintenance.

"When I interview a person, I say straight out—if you're going to mistreat the equipment, I'm going to send you right out the door!" he says. "I try to get the best equipment I can for the crew to work with and I expect them to keep it like new."

Lots of grease

As his staff and equipment needs have grown in the last five years, his emphasis on preventive maintenance has continued. "We use a lot of grease", he explains. "We grease the equipment every morning and we grease it again after lunch. I insist on it because grease is cheaper than parts and a lot easier to put on. And I'm picky about changing oil. For push mowers we change the oil every 50 hours. The larger tractors we run 100 hours between oil changes. We have some machines that get new oil and oil filters every Saturday morning. Now some people may say I'm wasting lots of good oil, but I've got a 1977 Deere tractor out here that you can work just as hard as you want to and it won't use a drop of oil."

Cleanliness is another part of Poe's preventive maintenance program. His crew washes every pickup truck and mowing machine every working day. One reason for daily washing is public image and salesmanship.

Customers and executives are touring the property every day so the equipment has to look well-maintained to help reinforce the image of a well-planned, well-run community development.

But cleanliness also has its maintenance advantages. Poe says, "We scrape and wash every mower deck every night. I tell the crew to keep the machinery clean enough that you can sit on any piece of equipment in the shop and eat a sandwich. I have three-



Wayne Poe monitors hours of equipment use to be sure that crankcase oil is changed every 100 hours on a tractor, every 50 hours on a push mower. Carl Smith checks the oil.

year-old mower decks without a spot of rust."

Poe says he doesn't rely on checklists or paper work to keep track of preventive maintenance work because he monitors it all the time and his crew people know that they must take care of the equipment.

Poe goes a step further by instilling pride in his workers. He uses several techniques to help the crew take pride in their machines and their work. Sugarland Properties provides uniforms and caps for every grounds maintenance employee. Each employee pays \$8 a month for five uniforms and weekly laundering.

Each worker is assigned to an individual machine. And Poe spends an hour every night helping the crew wash, wax and polish the mowing machines. "We want to look first class because we're a first-class outfit," he says.

Poe has had some employee turnover problems, but 75 percent of his staff has been with him for two to three years. After six months of employment, employees receive family major medical insurance and dental plans for \$39 a month and a week of paid vacation.

Equipment

In the last five years Poe has purchased three dozen push mowers and 10 tractors ranging from 14.5 to 80 hp. "I look at the quality of the machine," Poe says. "I want something that will last. I consider the performance of the equipment and its safety features. Price is the last thing I look at. When an equipment dealer shows me a machine that meets my expectations, then I start chewing on the price. But I don't mind paying a little more for something that will hold up."

The Sugarland groundskeepers mow the Bermudagrass to 1 ¹/₄ inches from 50 to 56 times a year, fertilize it twice, and overseed with winter rye. The operation continues year round.

Poe tries to have enough equipment on hand to keep a full crew going even when a machine breaks down. Two mechanics handle repairs and draw parts from a well-stocked supply.

"We carry a good-size parts inventory for every piece of equipment. If I need one part, I'll buy two and keep one on a shelf. When I reach for that one, I call the dealer to order another one. That helps because you can catch a dealer short."

When buying new equipment, Poe looks for certain safety features. He likes safety devices that keep a machine under control if something happens to the operator.

Because the crew people work in residential areas where street traffic and pedestrians can pass near, it's critical that a tractor have something like a seat safety switch that automatically shuts off the engine should the operator dismount while the mower is engaged.

He also looks for safety devices that protect a passersby from objects thrown by a mower blade. Many of these safety features help protect the crew as well.

Poe provides safety glasses and a safety vest for operators to wear. Employees are forbidden to wear tennis shoes.

"I want to take care of my staff just like I'd want someone to take care of me. I spent time in the oil fields and I've seen where safety is a big factor in whether or not you walked away from a rig under your own power."

Sugarland's grounds maintenance staff is organized into two divisions one crew that maintains the 36-hole golf course and other sports facilities including tennis courts and swimming pools, and one division that maintains the boulevard strips within the planned community and the corporation property that surrounds the



20 residential areas, and the industrial and commercial parks.

Owners of single-family houses, apartment complexes and condominiums are responsible for their own grounds maintenance. Many of them would like Poe's crew to handle the work but he has to keep growth under control.

Several private mowing contractors help keep the community trim without adding to Poe's staff.

Poe manages the general property maintenance division.

His staff is organized into five groups with a crew leader and six groundskeepers. A 12 to 15 member crew mows the large, open areas. The whole 400 acres is mowed in three days. The rest of the week is used for cleaning up trash.

"I try to keep the respect of my crew people because if you don't have their respect, they're not going to do a good job," Poe said. "I like to stop someone every once in a while and say 'Hey, go get yourself a drink of water.' Then I'll grab his mower and work with it a spell. I won't ask anyone to do something that I wouldn't do or haven't done."

Poe believes that a manager must be firm with his employees, but at the same time respect them as individuals.

Incentive

One way he shows respect and concern for the crew is simply patting a person on the back when he does a good job. Another way is to trust the crew to do whatever it takes to keep First Colony in first-class trim.

Because the Sugarland crew works from 6 a.m. to 7 p.m., it's often difficult for the workers to get to the bank on payday or handle other errands during business hours. And some things can't be done on Saturdays.

Poe devised a plan that gives the crew a half day off on paydays if it completes the weekly tasks within four days. The workers appreciate the time off to handle their personal business and therefore don't ask for extra time off during other days of the month, unless there is a family emergency.

Poe's management style has allowed him to keep pace with the rapid growth of First Colony.

The planned community has a population of 20,000 now and will soon increase to more than 100,000. Maintaining top-quality grounds maintenance work for an operation that's expanding every day requires a firm hand. And as Poe is quick to point out—a fair person who treats people with respect. WT&T

NEMATODES AND HOW TO KNOCK THEM OFF.

The first thing you have to do before you can knock off nematodes is find a product that does it. We can help you with that one.

*NEMACUR 10% Turf and Ornamental nematicide does it knocks off more species of these tiny parasites than any other EPAregistered product.

And it's not only effective, it's easy to use. NEMACUR is a granular nematicide and needs *no special procedures* to put down.

It works, it's easy to apply with any granular spreader, and it *lasts*. Usually one application, no more than two, is all it takes to take out nematodes.

Nematodes, one serious problem with, really, only one serious solution. NEMACUR. Always read the label before use.



NEMACUR. WHEN YOU'RE SERIOUS ABOUT NEMATODES.



Mobay Chemical Corporation Specialty Products Group Box 4913, Kansas City, Mo. 64120

NEMACUR is a Reg. TM of the Parent Company of Farbenfabriken Bayer, GmbH, Leverkusen.

PROBLEM SOLVERS

by Balakrishna Rao, Ph.D.

Growth regulators OK

Problem: Can growth regulators or retardants be used on southern grasses such as on 'Floratam' St. Augustinegrass in Florida, etc.? (New York)

Solution: Yes, growth regulators or retardants can be used on southern turfgrass like St. Augustinegrass. In a 1983 issue of WT&T, I responded to a similar question regarding growth regulators available for use on St. Augustinegrass to reduce mowing frequency. For your convenience, I am reprinting that information below.

Mefluidide (Embark-25) has a label registration for use on St. Augustinegrass. Reports indicate that one application of Embark at a rate of one pint per acre in 15-150 gallons (depending on the application equipment) on St. Augustinegrass has provided growth suppression for eight weeks.

This material will inhibit cell division and cell elongation without affecting the root system. Ideally, the material should be applied when the grass is actively growing in spring and fall.

If the turf is irrigated, Embark can be used any time during the growing season. Depending on the stress condition, turf may show temporary discoloration in response to treatment.

For best results, apply the Embark when the turf grows a little taller than the normal mowing height or spray two to three days after mowing. After the application, wait for five to seven days and then mow if necessary. Follow normal turfgrass fertilization and conventional weed control programs along with irrigation.

It is important to apply the material uniformly; otherwise, the results will be variable.

Another product, maleic hydrazide (Retard) also has been used commercially for turfgrass maintenance; however, information on its use on St. Augustinegrass is lacking. Therefore, if you wish to use this product, first try it on a small test plot and study the growth response. For best results, read and follow the label specifications.

Splitting bark a mystery

Problem: In reading your article in the April 1984 issue, I would also like to comment about winter damage. In the middle of July I lost a 3"-3¹/₂" caliper Salix babylonica (Babylon Weeping Willow) and five of my Salix matsudana tortuosa, (Hankow Contorted Willow). The others have split their bark in several areas running from the base of the tree up to the first group of limbs, which varies from 6'-8' above ground.

I have contacted the county extension agent and he said since we had a bad winter, dry June and wet July that the trees just couldn't take the amount of moisture going into the tree. I have sprayed for insects and put pruning paint on the splits. I also did a soil sample. It is still a mystery to me about what's happened and would like more advice or any help on what to do. (Georgia)

Solution: Most plants are sensitive to exposure to extremes in temperature and/or moisture. The type of injury(ies) and loss of plants you have observed could possibly be related to these abiotic factors alone or in combination with other biotic factors, such as disease or insects. We have seen extensive winter injury symptoms on a number of plants in many areas during the past several years. Based on these experiences and your county extension agent's diagnosis of the problem, I believe that the problem is related to winter injury.

Therefore, in addition to the treatment you have already done, consider pruning the dead portion of the trees, fertilize, and water the plants as needed to help improve vitality.

Three to six week wait

Problem: How long should we wait to reseed a lawn after applying broadleaf herbicides? Secondly, how long should we delay broadleaf herbicide applications in a newly seeded area? (Michigan)

Solution: Generally, waiting for three to six weeks after broadleaf herbicide applications is sufficient to reseed the area. Reports indicate that with a splicer seeder, herbicides can be applied at or prior to seeding with no significant turfgrass reduction. Experience suggests that broadleaf herbicide applications should be delayed during establishment and at least until two to three mowing periods.

Weed control for centipede sod

Problem: When and what is the best time to treat centipede sod for weed control? Also, what is the best treatment for wild turnips in centipede sod? (Alabama)

Solution: In your area, the best time for treating centipede sod for weed control would be in the spring and fall.

Broadleaf herbicides like Trimec containing 2,4-D, MCPP and dicamba do not have preemergent activity. Therefore, for best results the weeds have to be present and, ideally, should be actively-growing when the application is made. On centipedegrass, use a bentgrass Trimec formula containing a low amount of 2,4-D.

To avoid potential injury to centipedegrass, do not use a regular Trimec formula which contains a higher rate of 2,4-D. For controlling wild turnip plants in centipede sod, use bentgrass Trimec in the spring, preferably before they bloom and again in the fall if the weeds are present. Read and follow label specifications for best results.