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LANDSCAPE PROFILE

THE BIG BOYS

Cypress Gardens, one of the most beautiful parks in the country, boasts more than 8,000 thriving plant species. That makes landscape horticulturist Norm Freel stingy with his time.

By Jerry Roche, editor

Norm Freel is a busy man. Ask him for an hour or two of his time and he gives you 45 minutes—maybe.

And with good reason: he is horticultural vice-president of the 223-acre Cypress Gardens, arguably the most beautiful park in the country.

These are the big boys of the landscape maintenance industry.

"We're not perfect, but we know we're damned good," says Freel.



More than 7,500 chrysanthemums were grown by nursery manager Gary Smith for Cypress Gardens' Mum Festival

"We try to offer the public a 365-day-a-year flower show. We've got to look good, whether we're in a freeze or extreme drought conditions.

"A guest could visit the Gardens 52 weeks of the year and each time see different plants in bloom. And you'd have to travel to 70 countries at different times of the year to see what you could see in a single day here."

You want big?

- The Gardens boast more than

8,000 thriving plant species and more than 12 million annual blooms.

- Freel oversees the 223-acre complex with a year-round crew of 47 employees.

- Fifty acres were overseeded with ryegrass four months ago. For the job, Freel ordered 12 tons of turfseed.

- Typically, his crews will apply 45 to 50 tons of fertilizer a year.

- For last winter's Mum Festival, one acre of nursery space was

temperature gets under 40 degrees—well, that's the most nerve-wracking time of all."

Over the years, Cypress Gardens has purchased more than 1,500 kerosene, natural gas and propane heaters. It takes the crew about four hours to put the heaters out. But the worst part is that Freel can never be absolutely sure when to have them stoked up. "There are a lot of variables in the weather," he admits.



Horticultural vice-president Norm Freel watches over his gardens.

needed to supply 7,500 chrysanthemums in seven colors.

- More than 1,000 trees are planted each year, most of them home-grown at Cypress Gardens' own 25-acre nursery.

"In our landscape, we've tried to create 'vistas,'" Freel says during a walk through the sprawling park. "I'm a believer in big material. I like things to look like they've been in five to ten years. We try plants, products—everything from seaweed to chicken feathers."

Weather woes

Despite Freel's immense responsibility, his No. 1 problem is no different than that of most smaller landscapers: the weather (believe it or not), despite the fact that Cypress Gardens rests on former swampland in sunny central Florida.

"Eighty percent of our material is either tropical or sub-tropical," Freel says, pointing to some beautiful giant cascading bougainvillea. "But in the last seven years, this has been a very temperate area. When the

Turf technique

The evident quality of the park is testament to the dedication of its Division of Horticulture.

Maintenance of the turf takes fully 50 percent of the department's time. Thirty mowers from 18-inch Snapper two-cycle trimmers to 70-inch Excel Hustlers are used on St. Augustine, Floratam, Bitter Blue Seville, Survive and other hybrid turfgrasses. Freel also hopes to seed some areas with newly-released Floralawn; and in non-irrigated areas, Argentine bahiagrass is used.

Freel talks about the park—every little gardenia, every blade of grass—with the pride of a father. He is totally dedicated to his job.

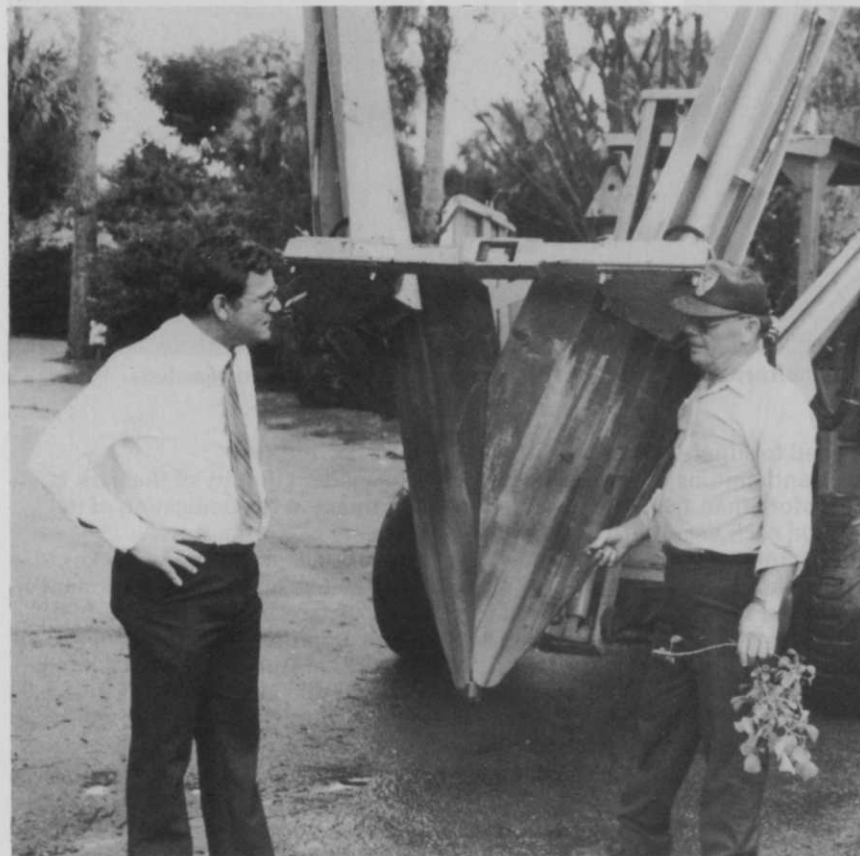
"I'm 35 years old, and I've been with Cypress Gardens since I was 18 when I started digging holes," he says. "I've done it all."

His day begins at 6:30 a.m. six or seven days a week. Both Freel and landscape maintenance superintendent Mike Wallace spend anywhere from 50 to 70 hours a week on the job. When Freel says, "I don't expect my employees to do

last winter.



A view of a portion of Cypress Gardens from the 153-foot Kodak Island in the Sky.



Freel (left) discusses current problems with Ellis Lindsey, a 40-year veteran at Cypress Gardens.

anything I haven't done," you almost have to feel sorry for the employees.

Smart cookies

Freel, who has a pair of two-year college degrees plus 40 hours completed toward his bachelor's in ornamental horticulture at the University of South Florida, is not solely responsible for the park's beauty. He retains an advisory board

consisting of Dr. Thomas Scheen, Jack Siebenthaler and Everett Miller.

Dr. Scheen is a member of the University of Florida faculty. Siebenthaler is a private consultant and landscape architect. Miller is former director of Longwood Gardens, and a park designer.

When it comes to picking and choosing materials, Freel gets the input of the advisory board,

management and his own "color foreman."

"We're usually planning one year ahead," he observes. "We can do anything if we have the lead time and budget."

Constant testing

To determine how to best keep the park blanketed in year-round color, Freel notes that there is not a single seed in the standard catalog he hasn't ordered and tested at the gardens.

"If something new comes on the market, we get it at once," he says. "If it flourishes, great. If it doesn't, we try the next thing that is introduced. It's a continuous process with perhaps 40 or 50 cultivars under test at all times."

To do this, Freel has more than 40,000 square feet of greenhouse plus the nursery, which is run by 10-year veteran Gary Smith. Freel says a single year's plant growth displayed at one time would blanket 100 acres and fill several football stadiums clear to the upper press box.

Deep roots

Freel is continuing the tradition set by his predecessor Bob Kuntz, who was originally hired by Cypress Gardens founder Dick Pope Sr.

It was Pope who, on Jan. 2, 1936, opened the gates of Cypress Gardens. It was Pope and his wife Julie who literally dug the drainage canals and planted the first flowers by hand, converting a desolate snake-infested swamp into a beautiful park in four years.

Ignoring cutting ridicule and titles like "Swami of the Swamp," "Maestro of the Muck" and "The Barnum of Botany," the Popes changed the alligator-ridden wasteland into a series of beautiful canals and paths winding through seas of brilliant bougainvillea, hibiscus and azalea.

A monument to the Popes' efforts still stands today: a 45-year-old banyan tree originally planted by Dick Pope Sr.

In the time it took for the sapling to grow into a magnificent beauty, the park expanded to include all known native plants and exotic flora from every continent.

So the importance of his job does not escape Norm Freel:

"Cypress Gardens and Sea World, we're the big boys of the garden business. We've got to be good." **WT&T**

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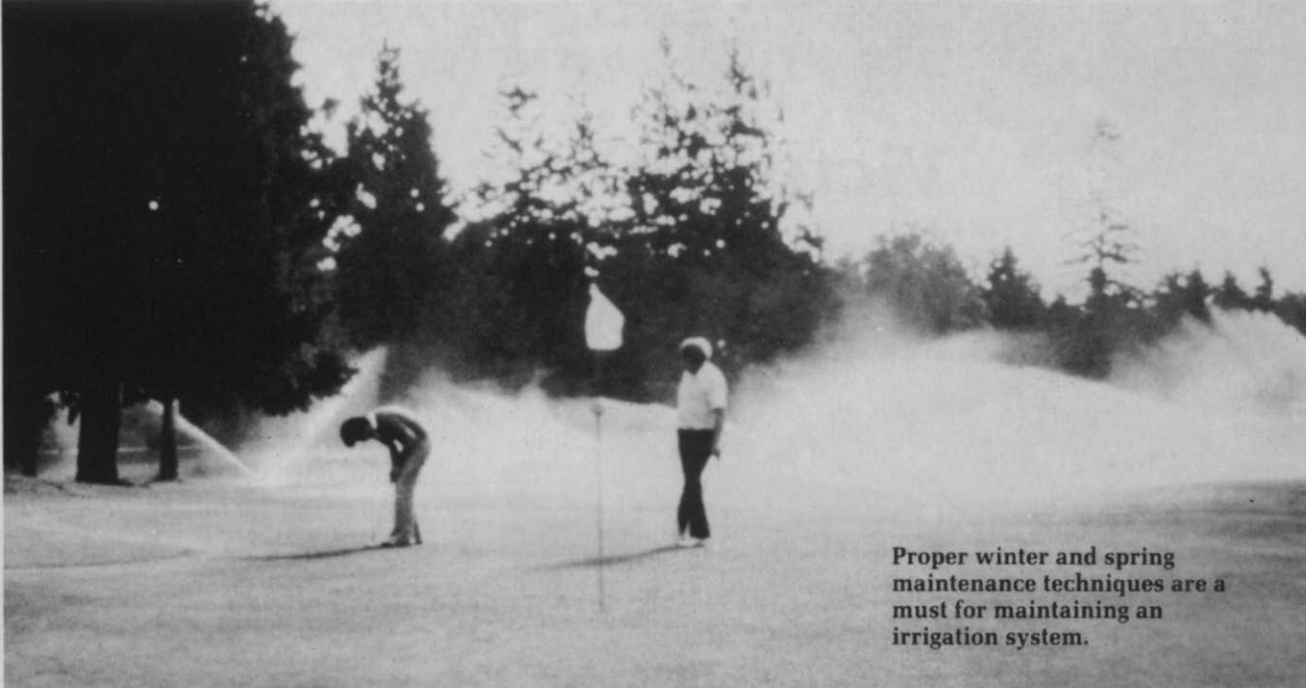


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Proper winter and spring maintenance techniques are a must for maintaining an irrigation system.

SPRING TROUBLESHOOTING

As winter's ice and snow thaw, so do irrigation systems. Here are some suggestions on how to avoid spring irrigation problems, and what to do if you've got them.

by Heide Aungst, associate editor

Many golf courses, parks and institutions would be virtually paralyzed without their irrigation systems. So, for most, constant maintenance is simply a way of life.

For those with systems in the North or Midwest, the hardest work comes in late fall when the system must be "winterized." But if you tried to save time then by rushing through the process, chances are you'll lose time this spring repairing winter damage caused by negligence last fall.

"Most people do a good job winterizing, because they know what headaches there are in the spring," says Michael Bravo of Thompson Irrigation, Chino, Calif. "It can be a lot of trouble and money."

Winterizing refers to using an air compressor to blow out or evacuate all water from the system. The primary source of spring start-up problems is water left in the system piping over the winter. In any area where temperatures drop below freezing, water can freeze and expand, causing pipes or valves to burst.

Tony Altum, of Grounds Management Consultants, Indianapolis, Ind.,

says too many golf course superintendents treat winterizing systems like changing oil in a car. "Lack of concern is the biggest problem," he notes. The part of the system which needs to be replaced might not be costly in and of itself, but Altum stresses that it may take days to wait for the part to come in and labor costs can go through the roof.

Big bucks?

Although costs vary widely across the country, Don Cooper, manager of customer service for Weather-Matic in Garland, Texas, estimates it could cost about \$1000 to replace a 12-inch break in the main line of a large system.

By spring, there's little hope for systems which have not been properly winterized. Even carefully evacuated systems can suffer from freeze damage warns James Burkhardt, president of James Burkhardt Associates in Columbus, Ohio. Occasionally, melting snow will get into a sprinkler head and refreeze. But, Cooper says, if the system is turned back on carefully, further damage can be minimized.

"The key is to fill the system slowly," Cooper recommends. "Dumping water into an empty line creates a water hammer which causes more breakage." Cooper says that Ts and elbows will snap easily if a pressure surge is created.

Cooper says a residential irrigation system should be recharged starting at the valve farthest from the water supply. Open the valve to let the air and water out, then bring the water pressure up slowly. Continue this process at each valve through the system.

For large commercial and institutional systems, start by opening as many valves as possible. Manually restrict the water flow to the heads. Close the valve closest to the water source. Continue this process, keeping the air moving in front of you at all times. It is important to go through the system manually to make sure any problem is with a part and not the controller.

Crucial steps

Cooper says this process is even more crucial at golf courses because of the large footage and large diameter of the

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**Michael Bravo, Thompson
Irrigation, Chino, Calif.**

pipes. If the system has a multi-stage pump plan, use only the jockey pump to fill the system. Continue checking each zone through the course. "You must pay particular attention to the peaks and valleys in the system," Cooper warns. "It's the low points where most problems will occur."

As you manually check each zone, first check the master or gate valve to make sure it is working smoothly and freely. Next, check valves, lines and sprinkler heads. Valves and sprinkler heads could have cracked through freeze damage. Or, they could simply need to be cleaned. "There could be dirt on the nozzles," says Bravo. "You might have to take them apart and clean inside the sprinkler head. It's rare, but not uncommon. Out of a hundred you might have to do three or four."

Gary Panuzzi, customer service manager of Richdel Inc. in Carson City, Nev., says sometimes bugs can collect in sprinkler lines and clog them. He says to unscrew the sprinkler heads and let the water clear the lines out.

Heads can also be broken by snow plows hitting them over the winter, says Burkhart. Cooper stresses also to be careful of maintenance work, such as installing phone or power lines, which can damage valves or sprinkler heads.

Broken pipes

Broken pipes, however, present the biggest problems. Loss of pressure in a zone, indicated by heads not popping up properly, or water coming quickly to the surface, indicate pipe trouble.

Be certain to operate the system for a short time to make sure the problem is not a symptom of just being turned on. Also, water pressure changes at different times of the day, says Desi Williamson, district manager for Rain Bird. The best pressure is in the middle of the day when most people are at

work and not using water.

It is important to check areas near concrete, particularly in residential systems, because concrete transfers cold and can contribute to freeze damage.

Besides the cost and labor involved in replacing a pipe, the destruction of landscaping in the area of the broken pipe can be an even worse problem. Cooper says some breaks can literally shatter the ground when they come to the surface.

"You can get a lot of erosion and water waste before you get the system shut down and the problem corrected," Cooper says. "Not only that, but digging down to fix the pipe ruins the landscaping."

Doug Miller with Champion Brass in Los Angeles, Calif., says with new products on the market, most irrigation system owners can easily replace valves or sprinkler heads, and many times can even fix a section of a broken pipe.

Williamson says to not forget to check the backflow preventer, which is always located 12 inches above the highest point in the system. The device is designed to keep contaminated water out of the system.

The final step in the process is to check the controller. Again, run through the system zone by zone, checking the electrical signal to each area.

The controller can freeze over the winter. To avoid this, Altum recommends using a controller which can be kept inside over the winter. If this isn't possible, he says, be sure to heat the controller with a lightbulb or heat tape.

In the South...

Irrigation systems in the South which are kept hot in the winter, but not used as frequently, need only a walk-through operational check before going into full swing.

First, check to make sure the valves and sprinkler heads aren't clogged, and that the spray and rotary heads are working right. Finally, check the controller to make sure it is sending the message to the valves to open and close.

Problems in Sun Belt systems should be routine. For irrigation systems which are shut down over the winter, the spring start-up should also be a routine process, provided the system was properly winterized.

If you find yourself repairing a great deal of freeze damage this spring, remember your headaches in the fall when you winterize. Preventative maintenance is the key to a smooth-running system. **WT&T**