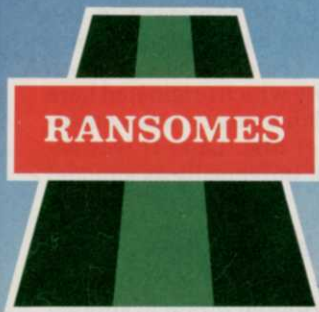


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A Living Legend

What history has wrought, modern turf practices and know-how keep alive and green on the tranquil grounds of Spring Grove.

by Maureen Hrehocik, managing editor

Nestled against Cincinnati's industrial Millcreek Valley is an enclave of art, architecture, genealogy, botanic-like gardens and history.

Sixteen Ohio state champion trees are scattered over the 733 acres of rolling hills where joggers, walkers and birdwatchers flock to indulge in their favorite pastime.

Thirteen lakes meander through the property so rich in history it's listed on the National Register of Historic Places. In the spring 25,000 tulips and 10,000 pansies paint splashes of color on the landscape; in the summer 30,000 bedding and fo-

The cemetery's gently sloping terrain has changed little in the past 140 years.

liage plants continue the breathtaking color; in fall they are replaced with 4,000 mums.

Spring Grove could easily be an arboretum. Instead it is a cemetery; the

final resting place of more than 183,000 people.

It is a Garden of Eden-like retreat.

Spring Grove Cemetery is the largest non-profit cemetery in the country and has been called the prototype rural cemetery. The "lawn plan" cemetery which originated here in the mid-19th century was considered radical at first. Later it was accepted almost universally as a model plan.

Visionary beginnings

Spring Grove was chartered in 1845. Its designer, Adolph Strauch, studied



An arboretum-like setting brings many visitors to Spring Grove.

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Tom Smith, front, Jack McAfee and Leonard Thomas.

under Frederick Law Olmsted of Central Park fame. It was Strauch's vision that saw the need for the preservation of the park-like piece of land. Roads did not disturb the natural contours, but instead were made to follow them.

The Prussian-born landscape gardener and superintendent of the cemetery encouraged lot owners to authorize removal of fences and hedges from around graves. Concerned with protecting the wooded areas of native trees, he also planted hundreds of varieties of plant materials from all over the world.

Imported and native birds were provided sanctuary beside the lakes and in the protected woodland area. The cemetery's gently sloping terrain has changed little in the past 140 years.

Privately commissioned memorials, works of art in their own right and many done by local artists, dot the cemetery grounds. Private mausoleums, dominated by the more than 100-year-old gothic Dexter mausoleum with balustrade and flying buttresses create imposing reminders of the cemetery's history. The Burnet Mausoleum, built in 1865 of Italian marble in the Corinthian style, contains the remains of Judge Jacob Burnet, author of the first state constitution, and his family.

Spring Grove is an obvious source of pride in the community. As many as 6,000 people will flood the cemetery on Memorial Day. More than



A 375-year-old white oak is the oldest tree in the cemetery.

"The people who work here are committed to excellence in everything they do."—Smith

50,000 people tour it in an average year.

Educational resource

The cemetery is as much a learning resource as it is an aesthetic experience.

Groups from the University of Illinois, University of Cincinnati, Purdue, Kentucky University, Miami of Ohio and Ohio State come to study plant material, design and maintenance.

What history has wrought at Spring Grove, modern technology and landscape management practices keep, literally, alive and green. Vice president Tom Smith's 85-person grounds crew is well aware of the legacy they are entrusted with.

"The people who work here are committed to excellence in everything they do," says Smith. "We've set high goals. We're also committed to the community and in sharing what we have as far as a greenbelt resource

for the community."

The cemetery sponsored a pruning clinic attended by more than 200 Cincinnatians. A deciduous forest is used frequently as a picnic spot for the Boy Scouts. A few acres are also set aside for community vegetable gardens.

"We're more than willing to share our bounty," continues Smith.

Spring Grove is full of bounty.

Of its 733 acres, 330 acres are woodlands and only 40 miles of roads snake their way through the preserve. The gravesite encroachment rate is only 20 acres every 10 years. Ninety percent of the cemetery's volume is contained in the front 150 acres. Revenue from trees harvested in the undeveloped woodland area is used to buy more nursery stock.

There are anywhere from 1,200 to 1,500 interments a year (including cremations). That averages to about five new graves a day.

"Land is our most important and vital resource," confirms Smith.

Give-and-take

People are also at the top of the list.

Spring Grove has an employee association. It has no national union sanctions but provides the same type forum for employees to voice concerns. Job openings that become available are put up for bid. Minimum pay for all contract positions is \$7.38 an hour.

Smith is pleased with the whole structure of management's rela-

tionship with the employees' association.

"Right now we're trying to hold the line on hiring," says Smith. "We have a tight nucleus of highly motivated, highly trained people."

Because of this, there is a certain prestige about working at Spring Grove. There is also a very low turnover rate.

"We've had great success with seasonal labor, but the employee association dictates how many temporaries we can use."

Spring Grove is home to one of the largest collections of American holly in the country.

For those in supervisory positions, a consulting group was brought in to present a program on "eliminating communication barriers."

Safety is also a top priority at Spring Grove. Those assigned to spraying pesticides are given a blood test every month to make sure sprays and pesticides are being handled properly. All supervisory personnel know CPR. Of its 85 peak-season employees, 50 are seasonal, 25 are employed year-round and the rest are students.

Smith, who holds a bachelors degree in botany and a master's from Yale in forestry, is the vice president of operations and in charge of landscape maintenance and administering an operating budget that approaches \$3 million. The maintenance budget is bolstered by trust funds that have been specifically earmarked for maintenance.

"The rest comes (of our income) from sales, service and investments," explains Smith. "Our long range goal is to have the maintenance covered exclusively by investments."

Leonard Thomas supervises horticulture and Jack McAfee is general foreman of maintenance of the grounds. Under Thomas and McAfee are 10 foremen who handle 10 crews.

"Our maintenance schedule and procedures are very integrated," explains Thomas. "Immediately following mowing is trimming and following trimming is clean-up. It's all very orchestrated and planned."

The turf at Spring Grove is a blend of newer fine-leaved fescues (includ-



Workers plant hundreds of ivy plants in one of the many cemetery gardens.

ing FineLawn, Rebel and Falcon). Overseeding in bluegrass areas is done with Pennfine, Regal and Manhattan perennial ryes.

It takes McAfee's 10-person "Yazoo crew" seven days to make one entire round mowing the cemetery grounds. His six-person trimming crew then does the trim work followed by a six-person crew with weed eaters.

Thomas says growth regulators and chemicals for the most part are used sparingly. "We use growth regulators on slopes because of inaccessibility," he says. "Embark, and especially Cutless, because it can be used on ornamentals as well as turf, have worked well for us. Limit also looks like a real good prospect for us. It's non-discoloring and enhances root formation."

Tree-topping, stump grinding and road sweeping are the only jobs contracted out. Chips from felled trees and from stumps are used for mulch around trees.

"It creates a good buffer between trees and machines," says McAfee.

Thomas and McAfee are confronted with few disease problems. Sometimes grave-digging disturbs roots and allows diseases to enter. Insects such as tent caterpillars are seasonally bothersome. Methoxychlor takes care of elm bark beetles.

It takes a crew of 10 two months to clean the 18,000 ivy and euonymus graves in the cemetery. Thirty percent of the maintenance budget goes into maintaining and propagating groundcover graves.

"We're currently involved in a grave marker lowering program to reduce maintenance," says McAfee. "I'd say 95 percent of the lot owners are happy we're doing it." The large monuments, however, will always be

a part of Spring Grove.

Unique species

Thomas is in charge of the landscape horticulture department which includes a four-person tree crew, 10 on the landscaping and greenhouse crew, six who care for groundcover and eight for turf. He also has a full-time florist who has been at Spring Grove for 30 years.

The horticulture department has a 2 1/2-acre nursery with a 2,500-plant inventory, four greenhouses where all flowers are propagated except bulbs. His department is also responsible for the interior plants in the administration and surrounding buildings.

Spring Grove has the largest *Eucommia ulmoides*, Hardy Rubber, and the largest species of *Zelkova serrata*, Japanese Zelkova, in the country. It's also home to one of the largest collections of American holly in the country. A 375-year-old white oak is the oldest tree on the property.

"We work closely with the National Arboretum and other arboreta across the country," says Thomas.

Spring Grove is situated on the edge of an aquifer. Smith says water is pulled from 85 to 180-foot deep wells and pumped into a cistern. From there it goes into a holding tank. The water is literally dropped to get pressure for the irrigation system.

The future

Future plans call for an on-premise flower shop and a visitor center. But Spring Grove's main goal continues to be the one set down by its founders over a century ago, says Smith.

"We are committed to perpetuating the reputation that has gone on before us. We are progressive traditionalists. We're not afraid of doing things differently. We like the challenge of change." **WT&T**

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BROWN PATCH CONTROL University of Maryland, 1983

Treatment	Rate/ 1,000 Sq. Ft.	Disease Rating % Plot Area Disease 7/8
TERSAN® 1991		
Vorlan ¹	2 oz.	0.0
Duosan ¹	2 oz.	5.5
Bayleton ²	3 oz.	5.0
Rubigan ³	2 oz.	4.2
Daconil 2787 4F ⁴	.5 oz.	11.0
Untreated	6 fl. oz.	4.6
	—	26.5

Bentgrass - Penncross
Application 6/7, 6/17, 7/8
P. H. Dermody, J. D. Fry
Dept. of Agronomy, University of Maryland



TERSAN® 1991 controls brown patch and anthracnose better than the fungicide you are now using.

If you're not using TERSAN® 1991 fungicide you're not getting the best brown patch and anthracnose control. Test results, like these from Michigan State University on anthracnose and the University of Maryland on brown patch, prove nothing works better than Du Pont TERSAN 1991 fungicide against these two turf diseases.

Many new fungicides provide poor control of brown patch and anthracnose, especially under heavy disease pressure. Their extended spray intervals recommended for other turf diseases, such as dollar spot, are too long to provide adequate protection against brown patch and anthracnose.

TERSAN 1991 is well suited to handle the heaviest disease pressure. Its unique systemic activity withstands heavy rainfall and frequent watering for longer-lasting disease control. And TERSAN 1991 may be applied for anthracnose control either preventively or after the disease is already present.

Schedule TERSAN 1991 in your summer spray program. Apply it in tank mixtures or as supplemental applications from June through August, when brown patch and anthracnose threaten.

You'll get tee-to-green control that hits brown patch and anthracnose hard. Control that university tests

prove works even under heavy disease pressure...TERSAN 1991. Only from Du Pont.

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²Bayleton—Mobay Chemical Co.
³Rubigan—Elanco Products Co.
⁴Daconil—SDS Biotech Corp.
⁵Clearys 3336—W.A. Cleary Chemical Corp.
⁶Actidione TGF and Actidione RZ—TUCO Div. of Upjohn Co.

With any chemical, follow label instructions and warnings carefully.



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ANTHRACNOSE CONTROL Michigan State University 1982 Glen Gary Golf Club, Sylvania, Ohio

Treatment	Rate/ 1,000 Sq. Ft.	Application Interval	Disease Rating % Plot Infected 8/5	8/7
TERSAN® 1991				
Bayleton	1 oz.		8.3	0.
Duosan	2 oz.	21 days	11.7	1.7
Clearys 3336 ⁵	4 oz.	30 days	21.7	8.3
Fungo 50 ¹	1 oz.	21 days	30.0	18.3
Daconil 2787 4F	1 oz.	21 days	28.3	19.0
Actidione TGF + Actidione RZ ⁶	6 fl. oz.	14 days	38.3	28.3
Vorlan	.34 + .55 oz.	14 days	48.3	65.0
Untreated	1 oz.	21 days	55.0	60.0
Annual Bluegrass Applications began on July 7 Dr. Joseph Vargas, Michigan State University	—	—	58.3	66.7

Saline Irrigation

As the availability of fresh water for irrigation dwindles, water containing dissolved soluble salts can help quench irrigation needs.

Dr. Bruce J. Augustin



Alden Pines Country Club near Ft. Meyers, FL, is an example of how turfgrass managers are coping with saline environments. The course is located on the Gulf of Mexico. Its irrigation water has an EC reading of 10 dS/m. The entire facility is planted with *Adalayd Seashore paspalumgrass*.

Irrigation is becoming a major cultural practice throughout the United States for turf and ornamental plants.

Providing adequate supplemental water insures a consistent, healthy, vigorously growing landscape when rainfall is inadequate or infrequent.

Obtaining ample quantities of good quality water is becoming difficult as

irrigation demands increase and fresh water supplies dwindle. Often lower quality water with high amounts of dissolved soluble salts is used in order to obtain adequate amounts of irrigation.

The principle soluble salts found in water are the chloride and sulfate salts of sodium, calcium, and magnesium.

The original source of these materials was from weathering of primary minerals. The oceans have become the eventual reservoir of soluble salts as water has moved through the hydrological cycle. Along coastal regions of the country, seawater is intruding into fresh water supplies and contaminating them by increasing the

continued on page 62

Two watering schedules in one easy-to-program controller That's a switch

Now, at the flip of a switch, you can have two separate watering programs. In the simple-to-operate new Mark Series of micro-computer irrigation controllers from Weather-matic.

Mark controllers have a special function selector switch that eliminates many programming steps required with a keyboard pad. An LED display shows the current time or program value. And LED lights indicate each watering day selected.

The new controllers also offer 0-99 minute timing at one-minute increments, and four daily start times on each program.

Special features include a battery back-up system that retains program and clock time in the event of power failure. Plus a back-up program that provides 10 minutes of daily watering on each



station when the controller has been without power for an extended period. In addition, the controller will detect any partially shorted valve and automatically skip that station.

This advanced new controller is available for 6 or 8 watering stations, in rainproof aluminum housing or economical plastic for indoor use. Or a 16-station version in an industrial grade housing with an optional pedestal. Teamed up with Weather-matic valves, sprinklers and Rain-Stat®, the Mark Series works and works and works.

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