

Time to Specialize

Government agencies reap new benefits from computers and specialized landscape managers.

by Bruce F. Shank, executive editor, and Maureen Hrehocik, managing editor

Government landscape managers range from volunteers to school superintendents, from janitors to generals, and from football coaches to engineers.

Despite the inconsistency, all landscape managers seem to be facing the same challenges; intensive use of baseball and soccer fields, the increasing need to justify expenditures, and dealing with the boss, the taxpayer.

We polled a variety of government landscape managers to get a feel for their problems and their solutions. This is more a slice-of-life report than a numerical listing of purchases or acreage.

Computer use up

We discovered the computer is rapidly gaining acceptance with government landscape managers. They are using computers to keep track of trees, equipment repair parts, scheduling, and to keep taxpayers posted on department activities.

Community size doesn't seem to matter. Eric Anspaugh, superintendent of Kettering, OH, parks, and George Eib, superintendent of forestry and landscaping for Kansas City, MO, both use computers.

Landscape managers may have to share computer time with the street

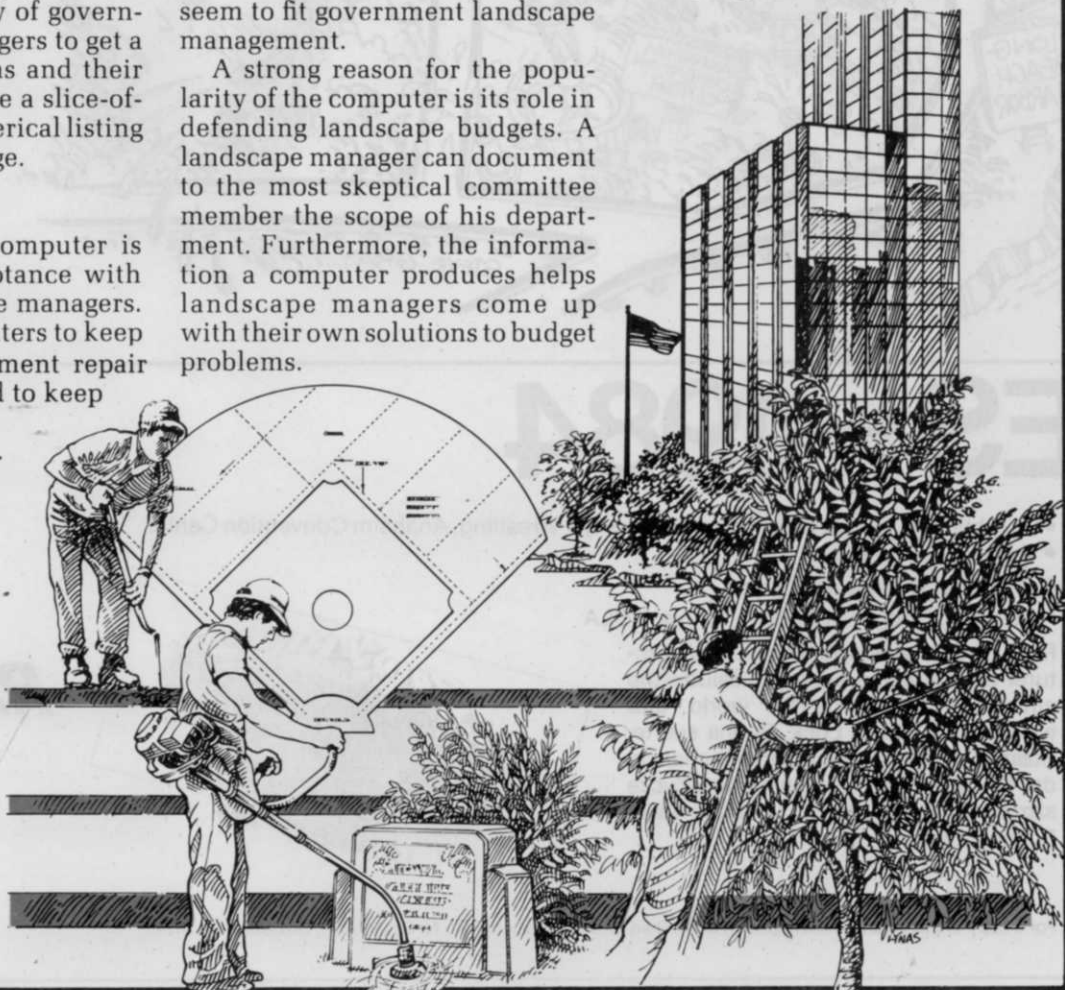
recreation departments, but they have access to a tool that helps them control labor, communicate with taxpayers, and justify needs.

Access to a computer does not seem to be a problem. Every person we talked to indicated their agency was willing and even anxious to help them. Setting up programs and record keeping systems are cited as early hurdles, but once these are cleared, computers seem to fit government landscape management.

A strong reason for the popularity of the computer is its role in defending landscape budgets. A landscape manager can document to the most skeptical committee member the scope of his department. Furthermore, the information a computer produces helps landscape managers come up with their own solutions to budget problems.

Kansas City is an example of creative computer use. Faced with smaller and smaller increases in his budget, George Eib realized he had to find a method to guarantee his department would have money to replace important equipment as it aged.

With the help of a computer, he devised an equipment amortization program. The replacement



value of key equipment (trucks, cars, mowers, etc.) is divided by its useful life. This amount is built into his budget each year and placed into an equipment replacement account. Eib does not have to make a capital expenditure request each time a piece of equipment needs to be replaced. It paid off this year when Kansas City froze Eib's budget.

Kettering's Anspaugh is lucky to have funds from a recent income tax increase in this city south of Dayton. Nevertheless, with the help of a computer he has documented the cost of maintaining each of 33 baseball fields under his care. Armed with this information, it's easier to win financial support from leagues using the fields. During summer

leagues his crew has to drag and reline nearly 30 fields each day. When leagues ask for fancier dugouts or bullpens, he has the data to negotiate.

Specialization

Many of the battles with boards can be eliminated when public agencies recognize the special knowledge and needs of landscape managers and provide them with a more direct link to decision makers.

Lenoir, NC, has specialized all city landscape needs into a single department whose manager reports directly to the city manager.

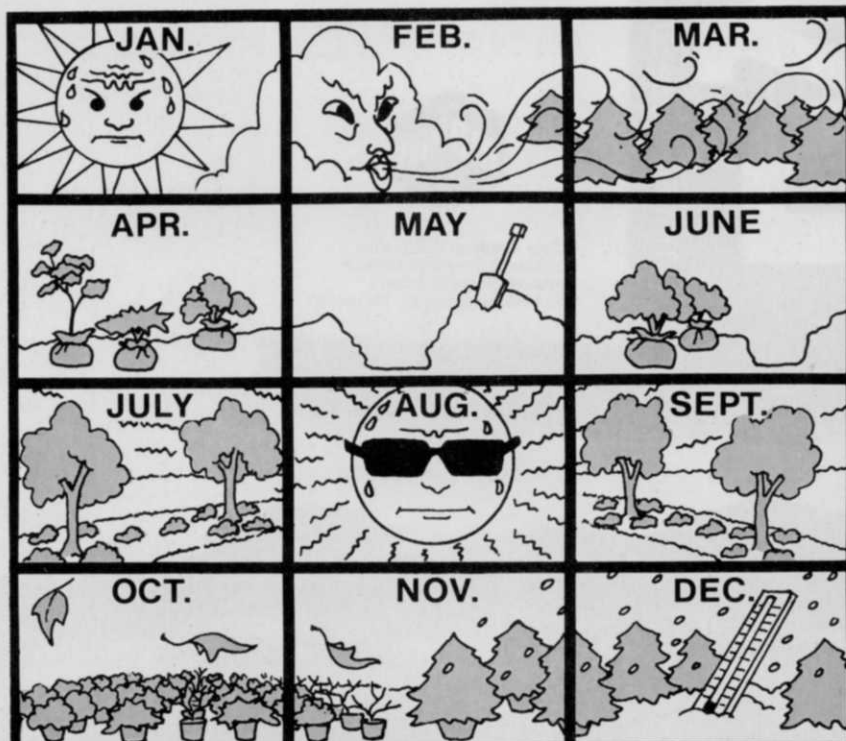
John Abernethy, the first person to be certified by the Professional Grounds Management Society in 1981, is the landscape superintendent in Lenoir, an important furniture manufacturing center. "My department does many of the things public works and recreational departments normally do," he explains. "We take care of street trees, cemeteries, athletic fields, and parks, and plant 4,000 tulips and 6,000 annuals each year around the city. The advantage is I go directly to the city manager when I need something, not a citizen committee."

"Recreation and public works departments simply don't understand what's needed to properly care for public landscapes. They tend to look at landscape maintenance as an area to cut when budgets get tight. It's much easier to explain the biological needs of plants to one person than a group," Abernethy stated.

Specialization plays an important role at the U.S. Military Academy at West Point, NY. All pest control, from mice to weeds, is the responsibility of Theodore Copertino. His crew of seven controls weeds, diseases, structural pests, and outdoor pests from nematodes to gypsy moth.

This specialization gives John Nosick, head of maintenance, time to focus on facility maintenance.

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The parks maintenance department in Oak Ridge, TN, encourages citizens and workers to grade its work.

Report Card for Parks

by Maureen Hrehocik, managing editor



One of the picturesque flower gardens in Jackson Square.

Not too many maintenance departments receive comments about their maintenance practices from the public, that is unless they make an all-out effort to solicit them.

The parks department of the City of Oak Ridge, TN, has done just that, and the results have shown a "dramatic" increase in productivity as well as quality of work.

Bill Sewell, director of recrea-

tion and parks and Larry Bailey, parks superintendent are behind the project that lets citizens grade the landscape upkeep of the city's buildings and facilities, athletic fields, community parks and flower gardens.

"What we found is that our personnel began to look at their work more than just a job and more as a personal responsibility because they knew the citizens of the town would be looking carefully at

what they did," said Bailey. "Their specific areas of responsibility improved dramatically."

Bailey has taken the concept one step further. The employees also grade their work.

"They're their own worst critics," he said.

Bailey, 36, has devised a comprehensive 81-page grading manual with guidelines and photographs of "acceptable" and "unacceptable" levels of mainte-

nance in certain areas. The areas are then given checks. At the end, the checks are tallied up and converted to a percentage, much like in school.

... specific areas of responsibility improved dramatically,

"We would like all of our areas to be at least a 3.0 (on a 4.0 scale)," said Bailey.

The improvement to the entire city's landscaping has improved tremendously since the outset of the new program.

and was considered a "boom town."

All of the flurry has long since passed, but a commitment to the town hasn't — especially when it comes to maintenance.

Bailey has been with the division of recreation for 13 years and supervisor for six of them. He oversees 1,100 acres of turf including 15 public buildings, 12 athletic fields, 12 flower gardens, eight city parks, two baseball fields with Tifway (T- 419) bermudagrass infields, five regular softball fields and four soccer fields. The majority of turf is K-31 tall fescue.

He works with a \$194,399 budget and has the help of 6.5 people year-round and two extra helpers

tions related to grounds maintenance, athletic field maintenance, beautification, safety, preventive maintenance on equipment and other related topics and use the department's VCR as a training tool," Bailey explained.

Bailey's degree is in Forestry from the University of Tennessee. He has also taken short courses on turf management and landscape

Bailey has made an on-the-job training program a long-term goal to have implemented by summer 1985.

maintenance, but the availability of taking his crewmen with him to such seminars, hasn't been there.

"I'm hoping this will give us an opportunity to offer our employees something very essential to the performance of their duties," he said.

Weeds & insects

Bailey says his biggest maintenance headaches are weeds and pest control.

Chickweed, dandelions, nutsedge, crowfoot, annual bluegrass, henbit, kudzu, wild garlic, plantain, purslane and ground ivy are the weeds that give Bailey and his crews the most trouble. His treatment for the weed problem depends on the weed itself and its location.

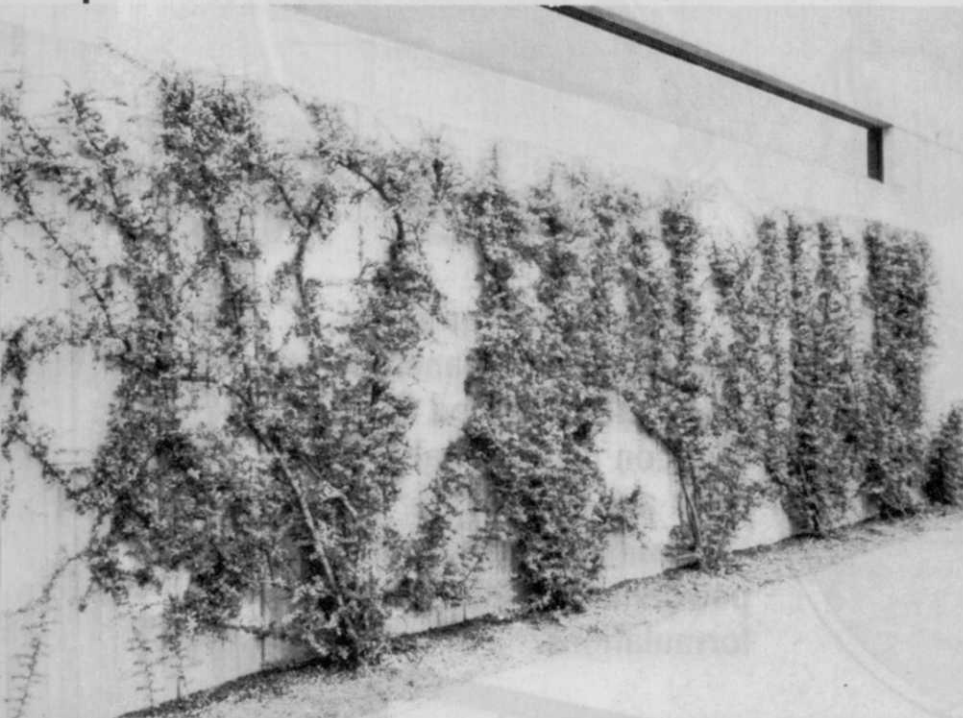
"We do a lot of spraying of non-selectives around tennis courts, bleachers and play equipment," he explained.

Soil testing is done to decide fertilization on areas that receive intensive landscape maintenance which would include athletic fields, flower gardens and the grounds around public buildings.

For the past few years he has had an increasing problem with Japanese beetles.

"At first we started setting traps out for them, but they didn't

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Spurred by public review, the Oak Ridge crews use attention-getting plant displays for extra attention, like these climbing shrubs.

"We're here to put in more than our eight hours," said Bailey. "We take a lot of pride in what we do."

Energy center

Oak Ridge with a population of about 29,000, is a major energy center.

During World War II, the atom bomb that destroyed Hiroshima was developed in Oak Ridge. It had a population then of 75,000

in the summer, mainly to work on the ballfields.

Training is goal

Bailey is very concerned about the training of his employees and has made developing an on-the-job training program a long-term goal to have implemented by summer, 1985.

"I'd like to acquire video tapes and other audio-video presenta-

Arlington Cemetery

Maintaining a national landmark takes a combination of horticultural expertise and a respect for the ritual and prestige of the nation's most renowned cemetery.

by Maureen Hrehocik, managing editor

The rain continued to fall at Arlington National Cemetery on a chilly February morning.

In the distance, the sharp crack of guns saluted a deceased Air Force officer. A bugle droned a dreary "Taps." The rain-drenched caisson that brought the casket to the gravesite stood idly on the side of the road.

Another Arlington funeral with "full honors."

Just one more of the 15 that will take place that day; just one of the 4,000 interments that will take place in Arlington this year. Another white marble headstone among the 190,000 already there.

Behind all the pomp and ritual of every Arlington burial is a 25-person landscape staff, headed by horticulturist Erik Dihle, that understands the needs and requirements of landscaping the 500 acres in the country's most well-known cemetery and landmark. It doesn't matter that many burials disturb roots of trees hundreds of years old among the cemetery's 9,000 causing severe damage to some. Or that compaction is a problem with all the vehicle traffic around the grounds. Or



Dihle used to use a high boom sprayer but found wind carried away fertilizer to non-selected areas and the vehicle sometimes hit the top of tombstones. He has since gone to a short boom sprayer with off-center nozzles which shoots the chemical into the next row of headstones.

that maintenance must be scheduled around frequent burials or visits ranging from heads of state to Boy Scout troops.

It doesn't stop at knowing just what tree to plant where or just what height the grass should be mowed or what herbicide will take care of certain weed problems. It's an understanding that ceremony at Arlington comes first, and everything else, including routine, necessary grounds care, must be squeezed in-between.

"We never really reach a level of turf we would like to main-



Horticulturist Erik Dihle stands in front of the Tomb of the Unknown Soldier overlooking the Mall, one of the high maintenance areas at Arlington National Cemetery.



A serene view of two of the nation's most prestigious landmarks — Arlington National Cemetery and the Washington Monument.

tain," said Dihle. "Arlington is a very active place with lots going on every day. Also, because Arlington is so prestigious, lots of tact must be used in dealing with the public."

Dihle said groups come in such as the survivors of Pearl Harbor or POW groups and want to do memorial tree plantings.

"We're always ready to assist where we can," Dihle said.

Add to that the fact that Arlington National Cemetery is also a tourist attraction with the grave of President John Kennedy

and the Tomb of the Unknown Soldier attracting thousands of

**Ceremony at
Arlington comes first
with everything else,
including grounds
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international visitors yearly.

Kennedy's grave, the Mall in

front of the Tomb of the Unknown Soldier and the Memorial Amphitheater are high maintenance areas because of their high visibility.

Arboretum setting

Weed control is a top priority, along with turf and tree care.

"We are in the second year of a three year weed control program and are very pleased with the results," said Dihle. "We've practically eradicated our broadleaf weeds. We try to renovate 15 to 20

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acres each year with Roundup.”

The overall landscape effect of Arlington is a natural, woodland-like setting. Its 3,000 shrubs and hedges are not manicured into sculptured balls or boxes. They are kept neat, but natural looking. The cemetery has more than 9,000 trees scattered among the rows and rows of headstones. Three

hundred to 400 are pruned each year. Six crewmen work six months a year just pruning small trees and shrubs.

In fact, Dihle points out, if Arlington wasn't a cemetery, it would be a beautiful arboretum. On its grounds is the largest Post oak in Washington, D.C., the Arlington oak. It's protected from

lightning with wire terminals attached to the end of its branches and grounded. Magnolias, weeping cherries, hickories, cedar, oak, maple, elm and crabapple dot the cemetery. Dihle would like to get rid of the oaks (which comprise 1/4 of the trees) because of the potential for gypsy moth problems.

“We lose about 25 to 30 trees annually and plant about 80 large (3.5 to 5 inch) caliper trees a year,” he said. “I'd like to start adding more variety to what we have.”

He is also concerned that the many trees that were part of the original estate where the cemetery now is, are preserved.

“Many of these trees cannot be replaced in our lifetime,” he said.

The overall landscape effect of Arlington is a natural, woodland-like setting.

Dihle has an older, high pressure tree sprayer that uses a needle for feeding with products such as Davey's Arbor Green. His primary sprayer is a Root-app, a drill-like gun sprayer that pounds into the soil like a jackhammer and injects a measured amount of fertilizer. One crew member works full-time nine months out of the year feeding trees.

“Tree feeding is an ongoing project for us except in the fall,” Dihle said.

300 truckfulls of leaves

Leaf collection during November and December is one of the largest maintenance jobs. This, along with mowing, are two areas contracted out in a \$900,000 contract.

During those peak leaf collection months, Dihle estimates the 30 to 35 full-time people working collect about 300, 20 cu. ft. truckloads full of leaves. The two percent leaf removal the regular Arlington grounds staff does is ground and mixed with sewage sludge from the city and used as a topdressing.

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A crewman feeds one of the 9,000 trees on the cemetery grounds.

Lancaster Landscapes of Virginia holds the cemetery's mowing contract on its mainly bluegrass/fescue turf. According to Dihle, the company uses largely Gravely, Heckendorn and Jacobsen rotary mowers, cutting an average height of 2.5 to 3 inches.

"I like to cut the grass a little higher because it helps in moisture retention," explained Dihle. "Only 100 acres of the cemetery are irrigated - around the Kennedy gravesite, Mall and Memorial Amphitheater."

There's also a need for a mower with good flotation because of the "corduroy effect" settling graves have on the surface of the turf.

"The graves settle and as the mowers go across they have a tendency to scalp. That's why we need equipment with good flotation."

The hillside behind the Kennedy grave going up to the Arlington House mansion is a par-

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ticularly difficult landscape maintenance problem. Because it is behind the Kennedy grave, it must be given careful attention.

"We have a hard time keeping it green," said Dihle. "If we irrigate it, the water collects and floods out at the bottom. Because it's so steep, most mowers have a hard time making the grade."

They've found a National 84-inch triplex mower does the best job because of its lower center of gravity.

Trimming around the 190,000, 24-inch high headstones is done once a week, by hand, with Bun-trim trimmers.

"We used to use a soil sterilant around the headstones, but it turned the grass brown which is unsightly, so we went back to trimming," said Dihle.

Turf spraying used to be done with a high boom sprayer to clear the 24-inch headstones. The spray, though, since the sprayer

was so high off the ground, was being windblown to other areas. Dihle now uses a short boom with off-center nozzles which can spray into the next row. The white marble headstones were also

Arlington National Cemetery, unlike other national cemeteries, is under the Dept. of the Army.

being discolored when limestone was applied.

"We switched to pelletized limestone which we can shoot into the next row as well," he said.

Dihle is trying to get away from the bar-type tires on most of the department's vehicles.

"I'd like to get more turf-type tires on our equipment to mini-

mize damage and compaction." A three-point hitch Cyclone spreader is used for fertilizing.

Gearing up for Memorial Day

About 37,000 square yards of sod are used a year, mostly around graves.

There are several pesticide projects going on each week such as spraying for American Holly leaf miners and spraying for aphids. Five acres are under contract for spraying including the Kennedy grave and the administration building.

This month Dihle and his crew will be involved in spraying elms, tree planting, shade tree pruning, in-house pruning of ornamentals, preparation of flower beds for planting around the Memorial Amphitheater. High maintenance turf care will begin at the Kennedy grave, Mall and administration building.

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The "Second" Mission

Keeping the grounds of the Johnson Space Center in top flight condition takes streamlined planning and patience with fickle Houston-area weather.

In the course of a year, Ray Meyer has had to deal with hurricanes, record-breaking cold temperatures, an inordinant amount of rain, drought and a deer problem.

As the management agronomist for the Lyndon B. Johnson Space Center in Houston, Meyer has the added responsibility, in the face of what Mother Nature dishes out, of keeping the 1,595 acres of the jewel of NASA's space program in "perfect" condition.

While the JSC's first mission may be training astronauts and undertaking space missions, public relations is its "second mission"; providing the two million

"The Johnson Space Center has really become somewhat of a national landmark."

visitors who flock to the site every year, a pleasing and attractive physical plant along with the latest display in extraterrestrial hardware.

"The Johnson Space Center has really become somewhat of a national landmark and must be maintained as one," said Meyer.

Uncooperative weather

That, sometimes, is easier said than done.

Last August, a hurricane hit Houston and totally uprooted 600 trees. Another 650 were blown over so badly they had to be

staked. Of the staked trees, Meyer said he only lost about 10 percent.

"The other 600 that were totally uprooted, we had to cut up."

Last December, nature struck again. This time it was below normal freezing temperatures.

"I still don't know the extent of that damage," Meyer told WEEDS TREES & TURF. "It will probably take the better part of the spring to tell what's going to green-up and what's not."

In February, Meyer was battling deer. He spotted as many as 68 eating and trampling plants on the complex.

"Most of the crew has been working 14 hour days trying to net them and carry them away from the Center."

And then there's the rain.

Average rainfall in Houston is from 50 to 60 inches. When it rains, it usually pours, causing flooding and severe runoff problems.

"On the other hand, we have to deal with drought during some seasons as well," he said.

As management agronomist for the past five years, Meyer is responsible for all 1,595 acres, including 600 acres with the highest visibility, 920 secondary acres at the Center and 75 NASA-occupied acres at Ellington Air Force Base North of the JSC.

"I'm employed by NASA to manage the grounds contract," explained Meyer. "Our maintenance work is contracted out to Chemical and Vegetation Control, Inc. in Baytown."



Ray Meyer, management agronomist for the JSC for the past five years.

The grounds care budget is around \$1 million.

"That really isn't as high as it may seem when you consider the standards we're expected to keep," says Meyer, who earned degrees in ornamental horticulture and forestry at the University of Missouri and completed his MBA degree from the University of Houston at Clear Lake in December.



Simple, efficient landscaping and use of native Texas plants and trees are hallmarks of the Johnson Space Center. Water lilies and fish in ponds add beauty as well as keep algae under control.

Controlling costs

Meyer said that those standards aren't maintained simply by spending money.

"Part of the job," he says, "is seeing that all of the funds made available to us are spent wisely and efficiently. We find ways to

The grounds care budget is around \$1 million.

stretch our financial resources and our manpower."

Some of those ways, Meyer said, is purchasing more efficient equipment, using slow release fertilizers and improved chemicals.

"We now have 10 Toro Groundsmaster 72s and a Howard-Price Hydro-80 (15-foot mower) that really suit our needs well. We've also increased our

mobility by using Cushman trucksters to get around."

Meyer explained when he first came to the JSC it took 12 people five weeks to mow the entire complex. Now, with the more efficient equipment, it takes seven people three days.

Turf at the JSC is divided into three classes. Class A turf is highly maintained and manicured. It surrounds most buildings and visitor areas and is mowed weekly. Class B turf receives moderate care and is found beside roads. Class C is the turf in fields most distant from main public areas. The latter two classes, Meyer says, "are mowed less frequently with most fields being mowed only once yearly. In some areas we let it go to six inches before taking off 50 percent of the foliage." The growth rate is roughly 1.5 inches a week.

"I've also changed to slow release fertilizers and now only have to fertilize twice a year

instead of four or five times. We have very alkaline soil which we're trying to make more acidic. By using sulfur-coated urea, we're accomplishing that and avoiding an extra pass over the fields for sulfur application. Doing it this way saves us both time and money in the long-run."

Soil tests performed yearly by Texas A&M University, determine his soil needs.

Meyer maintains that Roundup is his favorite herbicide. Where a long-residual non-selective is

Meyer saves expense and effort by using growth retardants.

needed, he uses Krovar and Spike.

"Much of the weed control work quite simply wouldn't be done, at least not at the level we're doing it, without the help of chemicals," he said.

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An aerial view of the expansive NASA Johnson Space Center in Houston, encompassing 1,596 acres of developed and undeveloped land.

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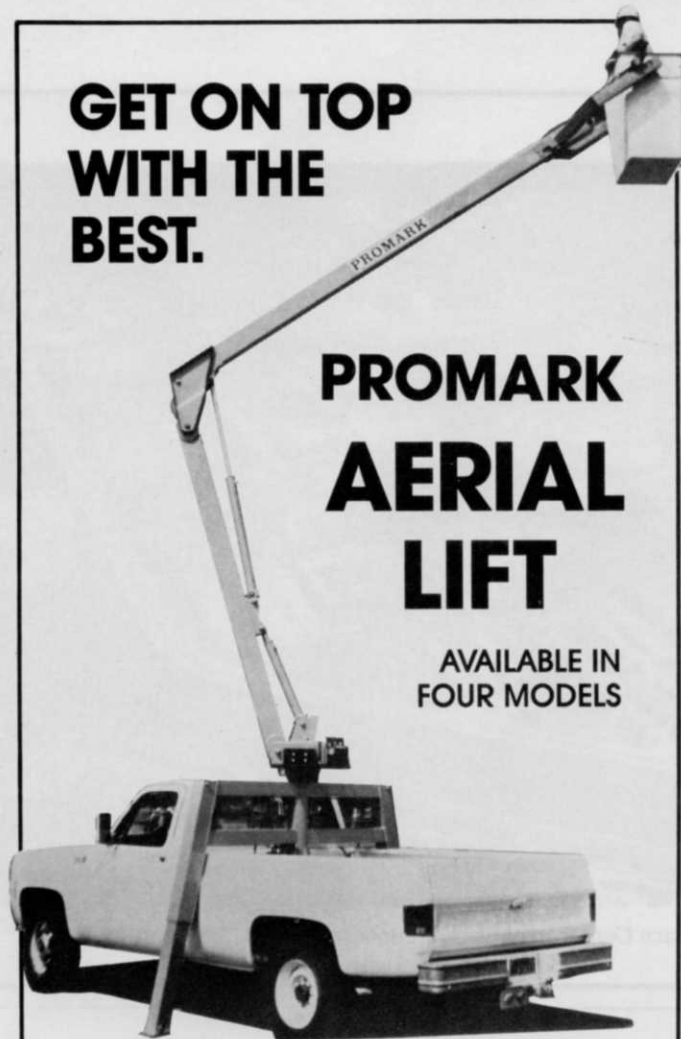
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Meyer usually has the contractor apply around 100 gallons of Roundup yearly to enable a "very intensive weed control job to be done for about half the cost of manual labor."

"One of our major weed problems is dallisgrass, but we also use Roundup to control encroaching St. Augustine and bermudagrass as well as for edging and renovating," he said.

Another herbicide Meyer uses is MSMA, which plays an important role in a practice Meyer believes should be more widespread.

"Where possible," he explains, "I try to turn a tough weed problem into an asset by incorporating that plant into my program. For example, in one area where we would normally want to have our 'premium' grass, St. Augustine, we've stopped fighting encroaching bermudagrass. Now we favor bermuda in that area."

Meyer also saves expense and effort by using growth retardants and limiting his mowing program to what's absolutely necessary.

"We apply Embark on turf along sidewalks and the site's street curbs. Atrinal is usually applied once in the spring to shrubs and hedges.

"I've found Mavrik Aquaflow to be one of the best insecticides on the market. It's very concentrated, doesn't smell and is very efficient. It costs more initially, but in the long-run, it is less expensive to apply and lasts longer," said Meyer.

Flowers and fish

Before Meyer became responsible for maintenance, the several ornamental ponds at the Center were cleaned once or twice yearly.

"That involved opening the drains and cleaning them by using fire hoses," he said. "Now the ponds are stocked with water lilies and various species of goldfish (carp).

"The water lilies make the ponds look attractive and the fish eat sufficient quantities of algae to keep it from getting out of hand.

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People don't mind seeing a little leaf cover on the bottom — and I'm sure don't mind saving the \$12,000 a year we were spending on algicides ... not to mention the money and time we're saving, by cutting out some useless work."

Meyer is in the first year of a 5-year renovation plan. Plans are to add wildflowers, native trees and shrubs, and stone mulch.

Irrigation, too, is only done on an as-needed basis. Much of Houston's rain comes in heavy downpours.

"Since I've been here, we've had two rains of 18 inches or more.

We've also had some very dry periods," said Meyer. "Despite those ups and downs, however, we've managed to maintain a reasonable irrigation program that meets better-than-the minimum needs of our plants without excessively damaging the budget."

Down the road

Meyer is in the first year of a 5-year plan that calls for the renovating the landscapes of all 48 buildings on the site.

He has also started a native Texas wildflower program.

"We've planted 12 acres of 1,200 acres available to us with bluebonnets, the state flower of Texas. They're low maintenance and add a lot to the beauty of the grounds."

The most common trees on site now are live oak, slash pine and sycamores. Fairly common are cyprus, red maples, water oak, willow oak and yaupon. Other species Meyer would like to see

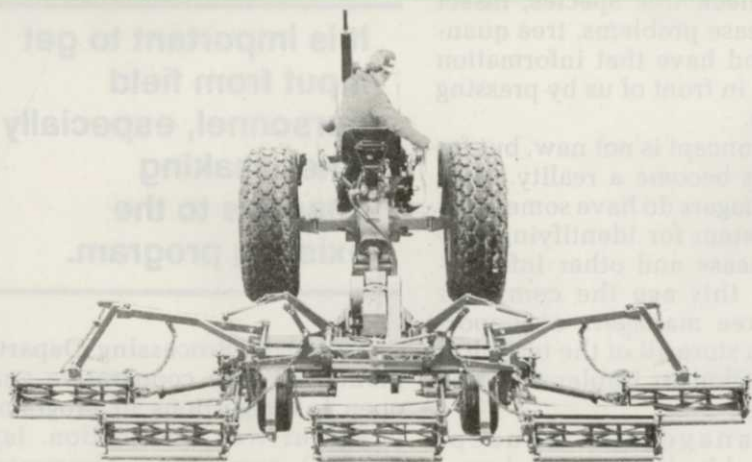
on the grounds are spruce pine, sand pine, Italian stone pine, mesquite, Texas mountain laurel, Chinese pistachio and sugar maple. The latter, he says, will grow "quite well here, but not many people try planting it."

Last year he bought primarily Parkinsonia, Chinese pistachio and mesquite and about 3,000 shrubs - mostly dwarf Nadina, dwarf Indian hawthorne, dwarf abelia, azaleas, several varieties of junipers, cotoneaster, Japanese boxwood and dwarf yaupon. Most of the shrubs' new homes are in already-established ornamental beds. Others, though, will be used to replace honeysuckle beds throughout the site which became badly infested with weeds. For attractive cover in this area, he uses stonebark, a volcanic rock.

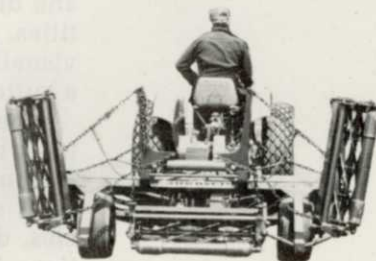
"I bought 60 tons of the rock and it was worth every penny because of what it will save on manpower in years to come," he commented.

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TOTAL INSTALLED COST	\$351	\$586

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SURVEY from page 46

nance, including mowing, roads, buildings, a golf course, and the West Point stadium. When you have 16,000 acres to take care of, 1,500 of this high maintenance, you simply don't have time to give plants the special attention they need.

In past surveys, we have found autonomous park districts receive stronger support for the horticultural and agronomic needs of landscapes. Joel Carter, chairman of the Ornamental Horticulture Department, California State Polytechnic University, Pomona, suggests the best park administrators are those who appreciate horticulture and park management. "Lean too much in either direction (horticulture or park administration) and your ability to make decisions is limited," Carter said.

Public schools

If managers of park landscapes have to constantly sell their programs just to meet basic needs, imagine what managers of public school landscapes have to face. At least in a park the purpose is recreation in a natural, outdoor setting. At schools, the purpose is education, and everything else is secondary.

For this report we interviewed maintenance managers and school superintendents. Clarence Lee, maintenance manager of Valley View Schools, Romeoville, IL, is responsible for 350 acres, 16 schools and a \$750,000 budget. His staff of five does it all, often transporting equipment from one school to another.

"My biggest job is keeping kids off the grass while we are trying to make repairs," Lee said. "In the summer I use CETA workers to help us catch up. During the growing season, we spend nearly all our time mowing. It takes us a week to do all the schools and then we start over again. The three high school football fields receive special attention, including aerification, extra fertilization and weed control. Our budget to do all this has grown about five percent per year."

The budget is slim and needs

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are basic for Ervin Himmerich, maintenance manager of New Richland School District, MN. He has to focus on priorities, such as changing the track to metric and the football field. However, he does apply postemergence herbicides in the spring and fertilizes athletic fields.

Edward Schultz is landscape manager for two school districts in Iowa, Elkhorn and Kimballton. He reports to two school boards and has a combined budget of \$85,000.

Schultz relies on Iowa State University agronomists for big problems, yet he leaves most chemical decisions to his staff of four. The two systems put the emphasis on their football and baseball fields, out of a total of 17 acres of turf. He makes certain herbicides and fertilizers are applied each year. His equipment includes one garden tractor, a gang mower, and a custom-built sprayer.

Richard Stegman is director of buildings and grounds for Goodland Unified School District, Goodland, KS. The district has 14 buildings and 40 acres. Again, summer CETA workers help Stegman out.

Stegman's main concerns are energy costs and the physical structure of the school system, such as plumbing, painting, and electrical.

For the landscape, he depends greatly on his extension agent and his equipment dealer. He uses one John Deere and one Ford farm tractor, two Ford riding mowers, a 72-inch Excel Hustler mower, and a 110-gallon boom sprayer. He uses liquid fertilizers and herbicides.

William Armstrong is superintendent of schools, Bellvue, KY, a city of 8,000. His mind is occupied mainly with the education and welfare of 1,100 students. For the fields, which he "is attempting to keep grass on", he relies on extension for expertise. There is no one person specifically in charge of grounds, nor is there a budget for grounds. But, he believes roughly \$500 to \$1,000 is spent each year for seeding, fertilizing and renovating. The district uses a commercial service for fertilization and weed control when needed.

Public relations

As the computer is included more in the management of public landscapes, the doors also open for better communication with taxpayers. Since many public agencies share computers, they have the ability to share data. If the school district or parks department has a mailing list, landscape managers may be able to share this list to present their case to the public.

Perhaps the separate landscape department in Lenoir, NC, is an exception. But, it may also represent a trend. Schools and recreation are often given separate status, why not landscape management?

The way to achieve this beneficial status is through public relations, educating the public to the importance and special needs of plants as opposed to buildings, roads and sewage systems. The computer gives landscape managers the chance to state their case directly to the taxpayer, with accurate data.

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Lewis Mitchell cares for a flower bed in Jackson Square.

“We’re here to put in more than our eight-hours. We take a lot of pride in what we do.” — Bailey.

work. In fact, they seemed to attract more of them. Then we started spraying with Sevin which has slowed them down, but they’re still a nuisance. People have begun making their own traps. Japanese beetles effect more than 300 different species of trees and shrubs. There aren’t many things they don’t like.”

Mowing in most parks and around three electrical substations is contracted out.

There is no irrigation on ballfields, but Bailey is in the process of developing an irrigation system for one of them.

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Left to right: Oak Ridge parks crew Lewis Mitchell, Ken Lemons, Larry Bailey, William Rhodey and Eugene Wells.

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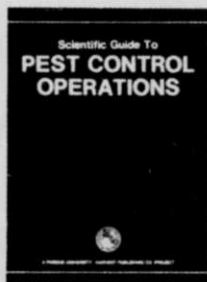
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ARLINGTON from page 59

tion building. He will also be gearing up for the cemetery's busiest day -- Memorial Day. Usually, the President makes an address from Arlington.

Dihle maintains a 1/2-acre nursery where various replacement shrubs are grown.

Asking Congress for landscape money

Arlington National Cemetery, unlike most other national cemeteries, is under the Dept. of the Army, not the Veterans Administration. Because of this, cemetery superintendent Raymond J. Costanzo goes directly to Congress for funding.

"We've been very fortunate to have increased funding which is allowing us to improve our total maintenance program," said Dihle.

This year his budget breakdown includes (without salaries):

- \$150,000 — grounds maintenance supplies

- 40,000 — equipment
- 60,000 — tree maintenance (spraying and pruning)
- 40,000 — tree planting
- \$10-15,000 — other contractual work

Dihle holds a Bachelor of Science in Botany degree from the University of California at Davis. He has worked as a nurseryman in Sacramento before working with the Department of Agriculture as an ag inspector in Galveston, TX and Spokane, WA. He later worked in the D.C. area.

"I really missed ornamental horticulture, though, and when the job at Arlington became available, I was very eager for the opportunity to get back into it."

Besides issuing and writing all contract work, Dihle is technical advisor to the superintendent and acts as a consultant for all future landscape work to be done at Arlington. Eventually, the cemetery will be expanded to its full 612-acre potential. Dihle issues a weekly work agenda and meets daily with foremen. He also takes care of the Soldiers' Home and Airmen's National Cemetery, a 15-acre cemetery in Washington, D.C.

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