

When you buy a piece of turf equipment from your Jacobsen distributor, he knows that the sale doesn't end with delivery.

In fact, it's just beginning. The rest of it depends upon his ability to give you fast service whenever it's needed. He knows that when your equipment is out for service, it's like having no equipment at all.

That's why your Jacobsen distributor goes out of his way to offer you the best service in the business. From normal maintenance to emergency repairs.

And he's been going out of his way for a long time. Our distributors have been with us for an average of 25 years. And their service managers have been with them for an average of 11 years. That's one heck of a lot of experience.

But Jacobsen distributors don't rest on laurels. Every year they send their service managers and key people to our Racine Product Training Center for comprehensive training sessions.

To stay up-to-date on new products and modifications.

To attend workshops on subjects such as the latest advances in hydraulics and transmissions. And to attend seminars on parts, service and management training.

Not only that, Jacobsen distributors hold field seminars and offer training to those customers who handle their own routine maintenance.

Fast service. Done by professionals who are thoroughly trained.

That's what you said you expect.

And that's why we feel that the sale is really completed in the service department.

Next time you get a chance, ask your Jacobsen distributor to tell you about his service philosophy.

The more you listen to what he has to say, the more you'll know he's been listening to you.

We hear you.

JACOBSEN
TEXTRON

Jacobsen Division of Textron Inc.

Circle 151 on free information card

GOVERNMENT UPDATE

Topsin M beats Tersan through RPAR

The Environmental Protection Agency has determined that Topsin M (thiophanate-methyl) needs no additional restrictions currently, although EPA is still pushing for some new restrictions for Tersan 1991's active ingredient benomyl. Both chemicals were in the process known as rebuttable presumption against registration.

EPA is leaning toward an extra warning on the benomyl label and use only in water soluble packets. It also wants more testing of benomyl. Du Pont argues that many users of benomyl can't use water soluble packages for time and equipment reasons.

Topsin M's active ingredient, thiophanate-methyl, has made it through the RPAR process without additional requirements or restrictions. EPA, however, is still checking risks of a metabolite of thiophanate-methyl.

The two products are in the same chemical family and have many of the same uses. Tersan 1991 is labelled for Fusarium, dollar spot, stripe smut, and brown patch. Topsin M, a Pennwalt product, is labelled for dollar spot, Fusarium, stripe smut, and brown patch.

AAN continues fight for chlordane

The American Association of Nurserymen is trying to obtain an extension to a 1978 agreement with EPA to provide chlordane for specific nursery uses through 1979. The uses are those necessary to meet state and federal quarantines for Japanese beetle, fire ant, and black vine weevil on nursery plants. AAN is currently working with USDA for the extension.

and sizes of plant material on his 814 acre nursery. His plant catalogs were often used as reference manuals by horticulture students and landscape contractors in the area around Cleveland. Kohankie received many honors in his life, including life membership in International Society of Arboriculture.

Charles McFee, Jr., was executive-secretary of the Virginia Nurserymen's Association. McFee provided Virginia Nurserymen with valuable direction and management training. VNA president Ralph Hanna, Jr., said McFee has been a sincere friend to all nurserymen in and outside of Virginia.

TREES

Tailgate safety program introduced by NAA

The National Arborist Association has developed and now offers a 33-lesson tailgate safety training program, based upon standards established by the American National Standards Institute in cooperation with NAA.

The program is designed to provide weekly training programs for employees in the field. Each lesson takes 15 to 20 minutes and includes an employee sign up sheet to show that each employee received the training. Safe use of every piece of tree equipment and job site precautions and marking are included in the lessons.

The programs are now available from NAA, 3537 Stratford Rd., Wampanoag, New York 11793, 516-221-3082.

Larry Holkenborg, president of NAA gave the first lesson of the series to his crew in Sandusky in October.



National Arborist Association executive secretary Bob Felix (left) presents first copy of the Tailgate Safety Training Program to NAA President Larry Holkenborg at Holkenborg's business in Sandusky, OH. Holkenborg gives the first lesson to his crew (bottom right). One key of the program is the crew member signs a sheet saying he completed each session (bottom left).



Nobody else builds large aerators like Ryan.

There's a big difference between aerating flat turf and aerating uneven terrain. That's why Ryan makes two large-area aerators: the Tracaire® and Renovaire®. Both have years of on-the-job use behind them, and remain two of the toughest large aerators in the business. Here's why.

(1) The Renovaire's independently-mounted tine wheels closely follow the contours of irregular grounds. So rolling areas like golf course fairways and parks get thorough, complete aeration; (2) The Tra-

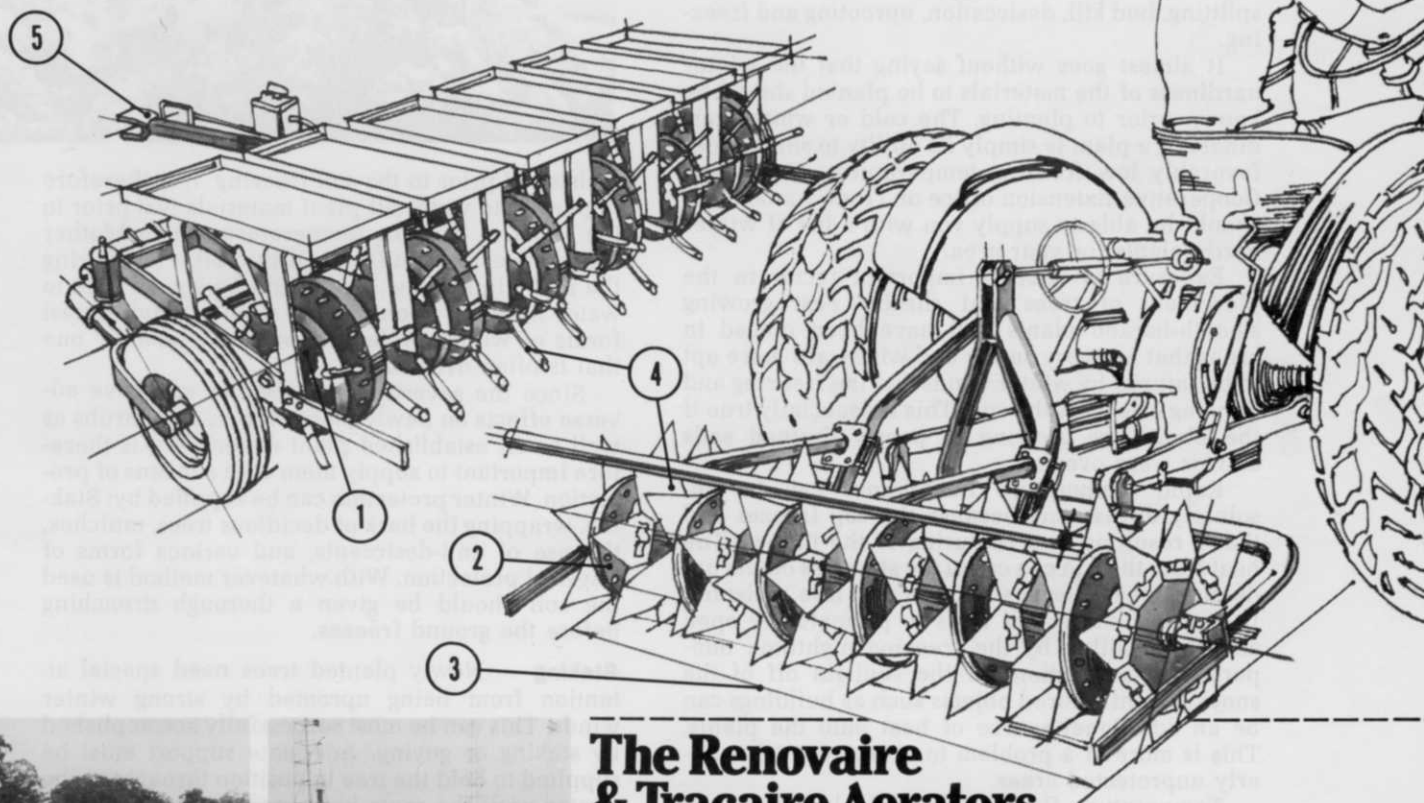
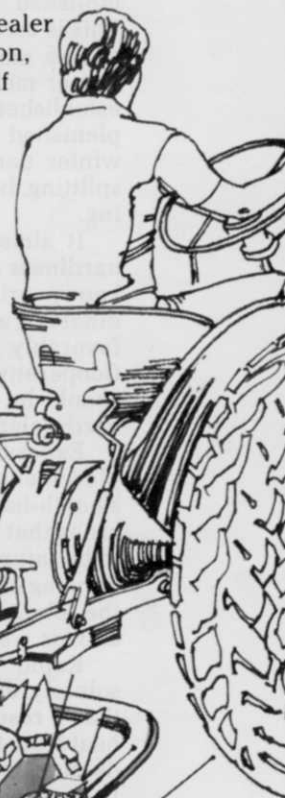
caire's 12 tine wheels are kept in horizontal alignment. So athletic fields and other wide, flat turf areas are aerated properly; (3) Both aerators give you a six-foot swath, and can work at speeds up to 10 mph to get the job done fast; (4) Interchangeable tines—coring, slicing or open spoon—let you aerate according to soil conditions; (5) Both models mount on any tractor hitch.

What's more, the Renovaire's tine wheels can be raised by your tractor's hydraulic system for quick

transportation. And the Tracaire is surrounded by a tubular steel frame that can stand up to a lot of punishment.

With operating costs getting higher all the time, you need to get the most out of every hour's wage you pay. That takes a dependable crew, using dependable equipment. Like the Ryan Renovaire and Tracaire.

Ask your Ryan dealer for more information, and see for yourself how we build large aerators.



The Renovaire & Tracaire Aerators

RYAN
TURF-CARE
EQUIPMENT
*Day-In, Day-Out
Performance.*

Show me what your large aerators can do on my turf, Ryan.

- ☐ I'd like more information on the Ryan Renovaire.
- ☐ I'd like more information on the Ryan Tracaire.
- ☐ Send me your new catalog for 1980.

Name _____

Title _____

Address _____

City _____ State _____ Zip _____

3025 Cushman
P.O. Box 82409
Lincoln, NE 68501

PROTECTING FALL PLANTINGS FROM THE RAVAGES OF WINTER

By Maria T. Cinque, Extension Specialist, Nassau County, NY

With the increasing popularity of fall planting of evergreens and deciduous materials, in some areas of the country, winter protection of those plants is more important than on spring planted materials. This is not to say that winter protection shouldn't be used on springtime plantings or established trees and shrubs, for these can certainly be damaged by severely cold, windy and snowy weather conditions.

Newly planted materials are in more danger of winter damage since the plants are not fully established and acclimated to their new location. This is certainly true of evergreens which continue to lose moisture from their leaves throughout the winter months. Since their roots are not fully re-established, the moisture often cannot be replenished and sun scorch results. Other types of winter damage to newly planted stock are: Bark splitting, bud kill, desiccation, uprooting and freezing.

It almost goes without saying that the winter hardiness of the materials to be planted should be known prior to planting. The cold or winter hardiness of a plant is simply its ability to survive unfavorably low freezing temperatures. Your local Cooperative Extension office or Trade Association should be able to supply you with a list of winter hardy plants for your area.

Exposure is another important factor in the placement of trees and shrubs. Fast growing smooth-barked plants that have been placed in areas that are very sunny and windy are more apt to be injured by winter winds and the freezing and thawing effects of the sun. This is especially true if the plants are growing in poorly drained soils and/or were overfertilized.

Rapid temperature fluctuations can be absolutely devastating because the sap freezes and thaws resulting in a rupturing of the tissues. The heat from the sun can cause the stomates on the undersides of the leaves to open and lose moisture. It can also cause leaf buds to prematurely open and to be killed by the freezing nighttime temperatures. Reflections of the sunlight off of the snow or light colored objects such as buildings can be an additional source of heat onto the plants. This is more of a problem to evergreens in southerly unprotected areas.

Temperature fluctuations will also effect the root system, when the soil moisture is frozen it is unavailable to the plant and desiccation may result. The injury from alternate freezing and thawing is due to the heaving of the soil and by the actual ripping of the root system in the process. Early warm temperatures can bring about the early blooming of trees which then have a high probability of being injured by frost.

Plants going into the winter without sufficient soil moisture are more apt to be effected by freezing soil temperatures than those whose soil was



moistened prior to the soil freezing. It is therefore important to water all plant materials just prior to the onset of freezing temperatures when Mother Nature doesn't do it for us. If the soil is dry during the mid-winter thaw, this would be a good time to water again. It is one of the simplest and easiest forms of winter protection but unfortunately one that is often overlooked.

Since the severity of the winter can have adverse effects on newly planted trees and shrubs as well as on established plant materials it is therefore important to supply them with a means of protection. Winter protection can be supplied by: Staking, wrapping the bark of deciduous trees, mulches, the use of anti-desiccants, and various forms of physical protection. With whatever method is used the soil should be given a thorough drenching before the ground freezes.

Staking — Newly planted trees need special attention from being uprooted by strong winter winds. This can be most successfully accomplished by staking or guying. Adequate support must be supplied to hold the tree in position throughout the winter until the roots have grown enough to support the tree. Guy wires or supports are usually left on for one to two growing seasons, however they should be checked after the first year to see that they are not girdling the tree. If they are found to be cutting into the bark the wires should be loosened.

Care should be taken in placement of guy wires on trees in public areas for they may be a source of danger to someone walking by and tripping over them.

Continues on page 16



Healthy Turf Next Spring Starts With IBDU® This Fall

Sure, there's more to maintaining quality, disease-free turfgrass than a couple of fertilizer applications. But turfgrass scientists across the country are reporting that a fall application of IBDU (31-0-0) can produce turfgrass with better root development and less disease problems.

Dormant turfgrass plants continue to produce rhizomes and roots, even though vertical growth has stopped. During this time nitrogen should be made available to the turfgrass plant as carbohydrates are naturally accumulating. Thus, scientists say, the optimum timing for nitrogen applications is during the fall and early winter months.

IBDU (31-0-0) is ideally suited for dormant nitrogen fertilization. Because of its slow release characteris-

tics based on hydrolysis, IBDU releases nitrogen later in the fall and earlier in the spring promoting better rhizome and root growth. A fall fertilizer program using IBDU should produce healthier more vigorous turfgrass plants and reduce the severity of several turfgrass diseases.

Remember. Healthy turf next spring starts with IBDU this fall.

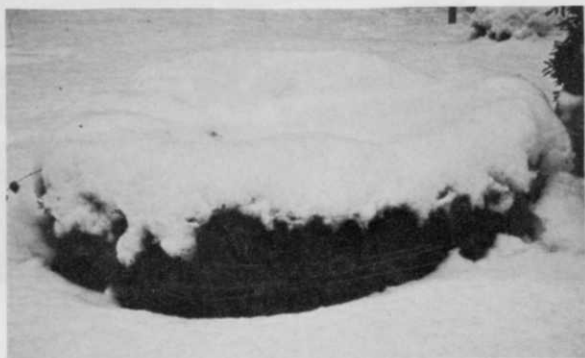
par ex®
PROFESSIONAL PRODUCTS

Estech General Chemicals Corporation
Professional Products Division
P.O. Box 1996
Winter Haven, Florida 33880

PAR EX® and IBDU® are registered trademarks of Estech General Chemicals Corporation.

Wrapping — Wrapping the bark of newly planted tender trees protects the trunk from the direct rays of the sun which could, if left unprotected, result in the bark splitting. This is especially a problem on the southerly exposed portion of the tree. During the daytime, southerly exposed bark warms up considerably (30 to 35 degrees higher than the north side) only to be subjected to freezing temperatures again at night, resulting in the splitting of the bark. The splits in the bark then serve as a portal of entry for insects and diseases. Therefore a commercially available tree wrap or burlap should be used to protect the tree from the drying effects of the sun and winter wind. The trees should be shielded for at least the first winter and perhaps the second.

Mulches — A winter mulch is used to minimize root injury from the freezing and thawing effects of the winter which can cause an uprooting or heaving of newly planted and established trees and shrubs from the soil. A mulch applied just after the ground freezes can prevent this from happening by maintaining the soil at a more even temperature. The mulch can be applied after the soil freezes in order to keep the soil cold rather than preventing it from becoming cold. A mulch will also help to retain soil moisture. Pine bark, wood chips, hay, clean straw, oak leaves, or evergreen branches can be used as winter mulches. Whichever mulch is used a few inches of it should be spread evenly over the root zone.



If this plant were not tied, the weight of the snow would have broken some of its branches.



Burlap is placed on top and around wooden frame for protection.

Anti-Desiccants — Anti-desiccants are another means of providing winter protection to evergreen trees and shrubs. They form a protective film over the plant which slows down the rate of transpiration and reduces water loss when the ground is frozen and water cannot be taken up by the plants. This is especially helpful on warm winter days when the plants transpire at a fairly high rate while the roots are unable to replenish the water loss due to the soil being frozen. The result is that the foliage becomes scorched. Anti-desiccants, if applied properly can help prevent the leaves from becoming scorched.

There seems to be a great deal of controversy among people in the industry over the use and the number of applications of anti-desiccants needed to give positive results. However it is felt by most experts that one application is usually not sufficient when applied to evergreens in the colder climates. Anti-desiccants seem to be most effective when applied two to three times: Late fall or early winter, again in mid-winter and if possible a third application in late winter. The mid-winter application is sometimes difficult since the temperature must be above forty degrees Fahrenheit and stay above freezing until the material has completely dried on the plants to form a wax-like coating. If it is too cold the anti-desiccant may freeze on the plant and be completely ineffective.

Continues on page 38



Newly planted tree is staked and wrapped in preparation for the winter.

Heavy odds, in fact. Accentuated by the many Briggs & Stratton advantages that prompt most of the world's tiller manufacturers to specify Briggs & Stratton engines. And consumers to **buy** them.

For example:

PERFORMANCE. More and longer lasting power, cooler operation, through heavy duty aluminum alloy construction. Also less weight for better tiller balance and maneuverability.

FAST, SURE ALL-WEATHER STARTS through Easy-Spin® automatic compression release plus unique high tension magneto ignition system.

SPECIAL FEATURES.

- Integrated carburetor and fuel tank eliminates fuel line breaking and clogging.
- Efficient air cleaner located farther away from heavy dirt and dust areas. Dual element industrial type air cleaner is an optional feature.

QUALITY ASSURANCE. Uncompromising quality control of all materials, manufacturing, and final assembly.

Briggs & Stratton makes **all** major engine components.

Next time you see a tiller, odds are the engine wears this:



The quality-assurance trademark people look for

SERVICE EVERYWHERE. 25,000 factory-trained and equipped Authorized Service Centers stocking original factory parts. Standard one year warranty.



The quality-assurance trademark people look for

Briggs & Stratton Corporation
Milwaukee, Wisconsin 53201

MUNICIPAL MANAGERS LEARN TO COMPETE FOR BUDGET FUNDS

By John Kerr, Assistant Editor

In every municipality in the U.S., one person or a team of superintendents commands the grooming of public buildings and grounds. These people — public works directors, landscape supervisors, urban foresters, park and recreation directors, and an array of other titles which represent similar responsibilities — must maintain trees, turf, parks, street medians, and right-of-ways. Like park directors, these managers must contend with reduced budgets and naive legislators. Yet unlike park directors, they have little if any way to produce revenue and are often considered extravagant spenders.

Municipal managers should provide concrete evidence of their worth and its effectiveness, like a city engineer who shows blueprints for a bridge at budget time.

Municipal grounds managers are learning from their competition — every other tax-paid department — how to accrue precious budget funds. They are organizing their work force, innovating new programs, and inventoring vegetation down to a seedling. This provides concrete evidence of their work and its effectiveness, like a city engineer who shows blueprints for a bridge or building, and gives leverage at budget time.

"We have convinced the policy makers it pays to maintain at a quality level," says Robert Skira, city forester in Milwaukee, WI. "There's a fine edge between quality and everything else. Once you slip past quality and into routine maintenance you're almost spending the same money, but you can never get on top of it. That puts you into an irreversible state in which you're always behind. If you had a little more money you could stay ahead."

At budget time, Skira brings an accurate inventory of his plants, evergreens, and ornamental trees; graphic descriptions of what his bureau could do and how much better it would look with additional funds; and goals and objectives for each particular project. "Legislators simply say yes or no," says Skira. "But at least they have the big picture and we try to make them acutely aware of the impact if they don't accept a particular level of service that we feel is economically feasible and at the same time adds to the environment."

An example Skira gives is his goal for the city's 305,408 street trees: "to continue to reforest and maintain the quality of the urban forest with all its environmental benefits at a level that will increase both the value of the trees and the real estate value of Milwaukee." He wants to set a value for every tree and then project what that value will be over a 10-year period if the trees are maintained properly. He will show through the International Society of Arboriculture's table what the increase in value will be.

With this plan mapped out, Skira shows exactly how important it is for a reasonable level of maintenance. "For some reason or other, foresters have not been able to sell their products on the basis they too have a life span. We say what the thing is, how much it will cost, what it's worth, and how you should be spending "x" dollars to preserve those values," he says.

He keeps his inventory constantly updated to consistently build a sound argument for the policy makers. Newly-developed areas are added to the forestry bureau's charts. Skira lobbies for his cause and realizes the importance of record keeping and thorough maintenance studies. "These kinds of things are necessary in today's world to manage vegetation," he says.

Skira also gets involved in decisions on new construction projects which he will eventually be maintaining. He may discuss the advantages of fashioning a boulevard out of a new or renovated road. This makes a roadway safer, the main consideration, but also increases the property value since the new design will sport flowers, ornamental trees, and shade trees. By being there at the planning stage, he can also save the city money on something like a sprinkler hookup, which is much cheaper to do before all construction begins.

Skira lobbies and realizes the importance of record keeping and thorough maintenance studies.

Converting from manual valves to pop-up head sprinklers and hydraulically-operated valves, saves labor and water for the city. Flower beds in boulevards have been trimmed down so large mowers speedily cut the grass between the beds and the road.

Continues on page 20

ONE PRODUCT **FORE**[®] TURF & ORNAMENTALS

Controlling diseases of turf and ornamentals requires a regular, preventive spray schedule rather than a curative one. A program of FORE fungicide gives you effective protection against 10 unsightly turf diseases plus algae and control of 22 damaging ornamental diseases. FORE is a broad-spectrum fungicide that helps maintain healthy turf and ornamental plantings. It is highly concentrated, making it an economical product, mixes readily with water, and stays in suspension with a minimum of agitation. Also, FORE is compatible with most other pesticides.

Call your local chemical supplier for additional information on FORE fungicide.

DISEASES OF TURF

Algae, Copper Spot,
Dollar Spot (Sclerotinia),
Fusarium Blight,
Fusarium Snow Mold,
Helminthosporium Melting Out,
Pythium, Red Thread, Rhizoctonia
Brown Patch, Rust, Slime Mold.

DISEASES OF ORNAMENTALS

Carnation	Leaf Spot
Crabapple, ornamental	Scab, Cedar-apple Rust
Dahlia, Lily, Tulip	Blight (<i>Botrytis</i> spp.)
Holly	Purple Spot
Hollyhock	Leaf Spot, Anthracnose, Rust
Honeysuckle	Blight (<i>Herpobasidium</i> spp.)
Iris	Leaf Spot
Pansy	Anthracnose
Rose	Black Spot
Snapdragon	Rust
Zinnia	Leaf Blight
Azalea, Camellia,	Petal Blight
Rhododendron	Petal Spot (<i>Botrytis</i> spp.)
Chrysanthemum	Anthracnose
Flowering dogwood	Leaf and Flower Spot
Gladiolus	(<i>Curvularia</i> and <i>Botrytis</i> spp.)
Pachysandra	Blight (<i>Volutella</i> spp.)
Peony	Blight (<i>Phytophthora</i> and <i>Botrytis</i> spp.)

**ROHM
AND
HAAS** 
PHILADELPHIA, PA. 19105

Read the label carefully and use only as directed.



New landscaping in Milwaukee includes more woody perennial material and less annuals. Skira's crew uses lots of wood chips around trees to preserve water and reduce trimming. The crew has discontinued heavy fertilizer treatments and combined fertilizing with herbicides in one fall spray. With small gasoline-engine trucks that have a hydraulic pump, hydraulic stick saws have been added, which triple the previous amount of low-level pruning.

Skira is planning to computerize his inventory because he thinks that will make his records unquestionable. Thomas McDermott, landscaping and cemetery superintendent of Charlotte, NC, has already begun a computerized inventory for his tree maintenance program. Computers tell him where the trees are, what they are, how large, and what problems they have. This helps him manage problems before citizens complain and gives him a systematic pruning schedule.

Careful track of costs will help tell us whether to contract out some maintenance.

McDermott is trying to keep a study of each project he has going every year. "If the cost is out of line for what it should be, then we can do something about it," he says. "If we don't know what our costs are, we don't know we have a problem." Careful track of costs will help determine whether it's beneficial to contract out some maintenance. "Then we could concentrate more on the aesthetic high visibility, high maintenance projects we might have without additional personnel."

Although McDermott has not had his budget cut, he's not getting any new people for his crew. He has tried to compensate through an extensive spraying program and efficient use of equipment.

"We can weed a bed chemically in probably one-fifth the time it would take our hands to do it," he says. Roundup has been very useful, particularly in beautification projects in which he doesn't fear for neighboring plant material. Soil sterilants, because of their volatile nature, work well on Charlotte's right-of-ways — Pramitol for street right-of-ways, Treflan as a preemergent weed control, and Casoron for winter weed control.

McDermott has changed mowing techniques, going to larger, more dependable equipment. His crew uses the front-mounted type of lawnmower that Toro makes to speed his grass maintenance. Mott side-mounted flail mowers cut the right-of-ways. And so he doesn't ever have to cut some areas, McDermott plants groundcover.

San Morita, superintendent of parkway maintenance, a division of public works in Anaheim, CA, has reduced his maintenance duties through new

types of irrigation systems and different plant materials. "We are going more to automation in grounds maintenance," says Morita. He is experimenting with drip systems and hi-pop sprinkler heads to irrigate with less water.

In the median islands around Anaheim, the trend is away from turf. Morita is planting materials like raphiolepis and Indian Hawthorne, and groundcover which are not individual plants like gazanias but others such as star jasmine and lantanas. The object is plants with color but not just annual flowering.

Since he has limited funds to work with, and feels that he is using his technical expertise and equipment to the fullest, Morita is now concentrating on employee incentive. "The main aspect of it is to keep as many employees on the job as possible and then motivate them through some type of program," he says.

He is working hard on employee safety. "First of all, if a man is hurt, he's suffering and also can't perform the job he was hired for." Last year Morita reduced the injury frequency rate over 50 percent through clear safety standards and regularly scheduled meetings to review them. What was before very general is now carefully written so everyone can understand. "If there's a violation, we'll get on it and take action," he says.

"Second, we want to give an employee an opportunity to attend seminars to improve his talents and skills. We want to give responsibility to the individual, make him a person, not a number," Morita says. Outstanding employees have the opportunity to attend equipment shows and seminars on topics such as safety or pruning. The International Society of Arboriculture sponsors Street Tree Seminar Inc., monthly meetings which Morita's crew attends.

In Detroit, a city that is rebuilding much of its downtown, many landscaped grounds are being added. Two people who head up the maintenance work — Karl Ackerman, senior associate forester, and John Tatti, senior assistant forester — are trying to influence the new designs for low maintenance.

Outstanding employees have the opportunity to attend shows and seminars on topics such as safety or pruning.

"Landscape architects keep putting in spacious areas and lots of trees," Tatti says. "They have to develop different techniques for us to maintain with less people. All of maintenance is going to come down to low cost." Ackerman says he reviews plans of even the private landscape firms to try to