COMMUNITY TREE PROGRAMS
Here's why Disc Chipper users are going back to Drum Chippers.

**More** Dumping Fees.
**More** Repair Costs.
**More** Downtime.
**More** Fuel Consumption.
**More** Overheating.

Do you need to chip everything?

If you're like most disc owners, you've been chipping more of what was once sold as firewood (or left for people to take), and have watched your dumping fees go up and your productivity go down. Your crews spend more time running to the dump, clearing jammed chutes, washing down radiator screens and waiting for overheated engines to cool.

The Asplundh Whisper Chipper not only offers lower operating costs, but extremely low life cycle costs. And, how many used disc chippers have you seen for sale after ten years of service?

**Are you spending more on fuel?**

At 70- to 120-feet per minute, it takes a disc chipper almost three times longer than a Whisper Chipper to chip six-inch material. How much more fuel do you think it uses? And, with the engine running longer, you're looking at shorter engine life and, again, higher operating costs.

The Asplundh Whisper Chipper saves time, fuel, and, most important, money.

**Are you paying hydraulic mechanics more?**

The chart below compares replacement parts for a Whisper Chipper with those of a popular disc chipper.

<table>
<thead>
<tr>
<th>Replacement Parts</th>
<th>Whisper Chipper</th>
<th>Disc Chipper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blades</td>
<td>None</td>
<td>Blades</td>
</tr>
<tr>
<td>Belts</td>
<td>None</td>
<td>Belts</td>
</tr>
<tr>
<td>Cutter Bar</td>
<td>None</td>
<td>Anvil</td>
</tr>
<tr>
<td>Hydraulic System</td>
<td>None</td>
<td>Hydraulic tubes, fittings, hoses, motors, filters, tanks, flow dividers, O-rings, seals, (over 30 hydraulic components alone)</td>
</tr>
<tr>
<td>Feed System</td>
<td>None</td>
<td>Feed wheels, feed teeth, bearings, bushings, feed wheel springs, feed wheel yokes, etc., etc.</td>
</tr>
</tbody>
</table>

Whisper Chippers have far less downtime. That translates into more time making money and less spending it.

**Are you ready to think about a drum chipper?**

The Whisper – designed, built, used and backed by Asplundh – carries a one-year warranty honored by the most extensive service in the industry. Plus, with full-sized Whispers starting at $8950, you'll keep your investment at its lowest and your yield at its highest.

Come back to the Asplundh Whisper Chipper... the chipper that keeps paying dividends for up to 20 years.

Asplundh Ability. See it in action.

1-800-331-1038

MANUFACTURING
100 Asplundh Avenue
Creedmoor, NC 27522

Please circle 6 on the Reader Service Card
CONTENTS

Features
4  TREE CITY, USA
   Cincinnati serves as a model for other communities
12  PROS AND CONS OF MUNICIPAL CONTRACTING
22  COMMUNITY TREES
   They're the focus of task force in New Hampshire
26  WORKING IN THE CITY
   Cambridge, Massachusetts, hires its first city arborist

Departments
2  OUTLOOK
14  INDUSTRY INPUT
17  MANAGEMENT EXCHANGE
20  WASHINGTON IN REVIEW
24  LABOR AND LAW UPDATE
30  INDUSTRY ALMANAC
31  CUTTING EDGE
32  CLASSIFIED
36  FROM THE FIELD

COVER PHOTO:
Tall elms line a street in Hanover, New Hampshire, a Tree City USA community since 1979. (Photo by Mary K. Reynolds)

In photo above, "Mr. Tree" promotes tree care in Cincinnati, Ohio, while in photo below, Jack Kelly, city arborist in Cambridge, Massachusetts, talks with a contractor. Read how these cities set an example for successful municipal tree care, and how one state is promoting tree care in small communities. (Top photo courtesy of Steve Sandfort; bottom photo taken by Martha Adams.)
For the past six weeks I have been visiting and talking with tree service company owners all over the country. I am finding tremendous optimism and confidence out there. The phones are ringing. Sales are moving right along. Some places even boast an abundance of personnel for the field force.

Still, there are a few cynics who are convinced that the world is coming to an end. In the best of times these folks find something to complain about, even if it's a shortage of parking places at the bank.

In my opinion, the tree care industry is on the leading edge of some outstanding opportunities. Given the decline in travel and the slump in the real estate market, more people are interested in enhancing their property. We know that an attractive well maintained landscape can add as much as 20% to the value of a property. There couldn't be a better time to convince your marketplace to spend some money on caring for their trees.

The president's America the Beautiful program presents another opportunity. The program requires that every state set up an urban forestry council to make recommendations on how available federal funding should be spent on trees. Every one of those councils should include a commercial arborist. I guarantee you that there will be several council members promoting tree planting, which is fine. If you or a member of your state arborist group were on that state council, you could help divert some of that funding to the care of existing trees. Unless these state councils are made aware of the needs and the benefits of protecting and preserving existing trees, all of the funding will go to the installation and maintenance of new plantings.

If we can have the input, we can reap the rewards. Don't wait for someone else to do it or it isn't going to happen.

Do you know what luck is? Luck is meeting opportunity with preparedness. The opportunities are there. Are you prepared?

Speaking of opportunities, don't miss the opportunity to attend TCI Expo 91 in Columbus, Ohio. See the article on page 30 for more information on this premiere trade show and educational meeting.
Two proven ways to control tree insects without harming the environment

Inject-A-Cide®
Inject-A-Cide® B

Stop pests that bore, chew or suck on plant tissues. Inject Maugut Inject-A-Cide® or Inject-A-Cide® B into a tree's vascular system and control more than 35 major insects that injure shade trees and ornamentals.

Protects The Environment
The Maugut micro injection process utilizes a closed system to keep pesticides from being introduced into the environment. No spraying is needed. Scientifically measured doses of EPA registered materials are placed directly into the tree's conductive vessels. This ensures environmental protection while controlling only injurious insect pests feeding on the tree.

Material Moves Via The Sapstream
The active ingredient in Inject-A-Cide® or Inject-A-Cide® B moves quickly into the sapstream. It is transported in the xylem from the point of injection to the upper crown and leaves. Entry points are smaller, shallower and fewer in number than any other injection method used today.

Do your part to protect the environment with the positive addition of Maugut micro injection to your IPM program. Stop boring, chewing and sucking insects from invading a tree's environment. Inject Maugut Inject-A-Cide or Inject-A-Cide B and target only those insect pests that harm trees.

J.J. Maugut Company
2810 N. Figueroa Street
Los Angeles, CA 90065
FAX: 213-225-3810
213-227-1482 (CA only)
1-800-TREES RX

Inject-A-Cide and Inject-A-Cide B are restricted use pesticides and may be applied only by a licensed and trained applicator.
* Contains Metasystox®, a Reg. TM of the Parent Company of Farbenfabriken Bayer GmbH, Leverkusen.
** Contains technical Bidrin, registered in U.S. & Canada Pat. Offs. by U.S. Pat 2,802,855; Canada Pat. 536,657.

Please circle 20 on the Reader Service Card
Prior to 1982, Cincinnati, Ohio, was taking care of its street trees in much the same way that many cities still do today: crisis management removals and few, if any, plantings. A recent survey by the American Forestry Association showed that the cities surveyed were removing four trees for every one planted.

Since then, the picture in Cincinnati has improved. The street tree forest is under professional management following a 20-year cycle. A new budget was developed and has been doubled. More than four trees have been planted for each one removed (during 1990 the ratio was close to 8:1). All street trees more than six inches in diameter are under a 10-year preventive maintenance cycle. All street trees smaller than six inches are under a 5-year pruning and fertilizing cycle. A 24-hour-per-day emergency response resolves tree-down complaints immediately and written service requests within four weeks, with almost no backlog at year’s end. Cincinnati has been recognized for 10 consecutive years by the National Arbor Day Foundation as a Tree City, USA.

Cincinnati, located in the southwest corner of Ohio, celebrated its Bicentennial in 1988. The city’s 364,000 people live along 1000 miles of streets within the 88 square miles comprising our scenic seven hills. Cincinnati is bordered by the Ohio River and Kentucky on the south and numerous townships, villages and cities on all other sides. In fact, completely surrounded by Cincinnati are three independent cities, Norwood, St. Bernard and Elmwood Place, each with its own elected officials, police forces, etc. The construction of new subdivisions and industrial parks is rare.

Street tree inventories conducted in 1980 showed a total of 50,000 street trees, about 6000 of which were too dangerous to keep by the roads. This average of 50 street trees per mile indicated that another 100 trees per mile should be planted to make Cincinnati as attractive as nearby villages such as Wyoming with its 100 trees per mile, Mariemont with 150 and Terrace Park with 280.

In 1976 concerned citizens, especially members of the Greater Cincinnati Tree Council, complained to the mayor that many street trees were being indiscriminately removed, almost no new trees were being planted and there was no professionally guided forestry program to reverse these trends. They pointed out that Cincinnati was the only major city in Ohio without a forestry program.

Mayor Bobbie Sterne appointed a 20-member Mayor’s Committee for Urban Greenery and charged it with securing enough federal funding to conduct a demonstration program, creating the management plan and ordinances necessary for a permanent program and establishing a method, other than the general fund and federal dollars, to pay for the program in the future.

The efforts were successful. The program was adopted unanimously by the City Council in 1980 and began its assessment-funded work in the fall of 1982. The permanent, professionally guided program was based on several fundamental principles:

1. There would be maximum citizen involvement;  
2. Management would be by neighborhoods (what rural foresters call
management units) rather than by individual trees and street addresses;
3. Funding would be based on a special front foot assessment;
4. The program would be most cost-effective by having a small professional staff planning and administering contracts with private landscape and tree service companies which would accomplish almost 100% of the street tree work.

Citizen volunteers

Citizen volunteers are involved in every phase of the forestry program and accomplish much work that would otherwise be costly in time and money. Volunteers serve four-year terms on a nine-member, city-manager-appointed Urban Forestry Board that helps guide and promote the program and makes recommendations to the Board of Park Commissioners, who are also volunteers. Closer to home, teams of five neighborhood volunteers, called tree boards, serve as official committees of about 50 community councils. Tree board members prune and water newly planted trees, remove or repair vandalized trees, and even investigate incidents of vandalism. They assist the five-member professional staff with taking inventory of street trees in preparation for preventive maintenance, marking dangerous trees for removal and posting each abutting property with an informative notice. To prepare for planting, tree board members conduct a preliminary survey with the staff and establish a priority list of streets to be planted over the next five years. Then, each year, they help the staff mark some 3000 planting sites and pass out informative literature. Currently, Forestry is committed to planting street trees in 12 communities before planting elsewhere.

In the fall each tree board plants 50, 1-1/2-inch caliper street trees supplied by Forestry. These 600 plantings are immediately followed by Forestry's contractual planting of the remaining 2400 trees.

Volunteers play a crucial role during the bad times, also. When the staff is overwhelmed inspecting trees and limbs down in those neighborhoods most heavily hit by a storm, volunteers often inspect locations in other areas and report to Forestry where tree crews are needed most. Major arterials, dead end streets or roads serving hospitals, fire stations and other emergency services take priority.

Management units

While citizen involvement has proven vital to a good forestry program, so has adopting traditional forest management principles. Our inventories and work accomplishments, other than emergency response, are not carried out on an individual tree-by-street-address basis. As is the case with the U.S. Forest Service, state forest agencies and industrial forest land companies, we find it more logical and cost-effective to manage our trees by large groups. Commonly called timber stands or management units in the rural areas, our groups are called communities.

Cincinnati is divided into 50 communities ranging in size from three miles of street to 70 miles. The street trees in each have their own unique character and needs, as do the people living there. Each community's tree board works closely with city leaders to develop annual budgets and work plans, and assists Forestry in developing a management plan. These individual plans are blended into a long-term plan for the city and serve as guidelines for periodic work in each management unit.

The 50 neighborhoods were ranked according to the number of dangerous trees per street mile as shown by inventories developed in 1980. Street tree preventive maintenance began in the most dangerous neighborhoods in 1982 and is now operating on a 10-year cycle toward the least dangerous communities. Another round of inventories to establish a second 10-year preventive maintenance cycle is planned for 1992.

In early summer of the year a community is scheduled for preventive maintenance, its tree board helps the Forestry staff inspect each street tree and mark those that must be removed. All others are recorded for a Class I NAA pruning. Stumps are counted. Contracts are awarded in
mid-summer and the tree work usually begins in the fall.

Completing a lot of work during the off-season in a compact management unit has proven to be profitable for the contractor and cost-effective for the city. In addition, requests for emergency services and claims for tree-caused damages have decreased dramatically in the neighborhoods served. The Law Department feels that our management unit system is defensible in liability challenges and the street trees are more attractive, safer and have had their lives extended.

At the conclusion of the preventive maintenance work, stumps are removed by a separate contractor. Usually, twice as many stumps are removed as there were trees removed since stumps are created by emergency, private and utility company requests for removals. Grass seed is sown as part of this work, so the stump removal contract is scheduled during the proper time to seed lawns.

The Urban Forestry Board periodically asks communities if they want to cooperate on a comprehensive planting program. In 1982, eight of 50 communities (16%) responded positively to the board’s letter. In 1988, when every plantable street in those eight had been planted, 12 of 42 (28.6%) leaped at the chance.

Tree board volunteers in each cooperating community help the staff survey the planting needs along each street that has a tree lawn width greater than three feet. An appropriate species and the approximate number of each street is listed and recorded on maps. The goal is to allow no species to comprise more than 5% of the total street tree population. However, one species is chosen for a street or small groups of streets that have other similar characteristics. This simplifies planting and future maintenance.

Once the survey is completed, each tree board develops a priority list of streets to be planted each year for the next five years. In January, Forestry notifies the communities of the planting budget for the following fall. The tree boards refer to their plan then submit a list of streets they want to include in the year’s planting contract. When all community requests are received, Forestry checks with every utility and city agency to learn of major street construction projects scheduled for the fall so planting in those locations can be postponed. Contracts are awarded in June and the successful contractor, Forestry and tree board members visit local nurseries during the summer to select trees. Several weeks before planting begins, underground utilities are marked by respective agencies, Forestry marks the 3000 planting sites with white paint on the curb, and tree board members post abutting properties with information about the new trees.

Forestry orders 50 trees for each of the 12 communities, and the lowest bidding nursery delivers them. The trees are planted by volunteers organized by the tree boards. Once this volunteer planting, designed to keep local interest in trees high, is completed successfully, the contractors are authorized to carry out their planting. The work begins early in November and concludes at Christmas, except for species that must be planted in spring. Completely planting a street has proven to be cost-effective and helps to plan future maintenance.

During the first five years after planting, trees that must be pruned or watered are serviced by tree board members trained by Forestry. Five years after a street has been planted, all trees less than six inches in diameter are scheduled for pruning, fertilizing and/or mulching by a contract landscape company. This is repeated in five years and then the trees are put on a 10-year cycle.

**Funding**

The city must keep track of 110,000 parcels to fund Forestry. Revenue is derived from a special assessment on property to care for street trees, as authorized by Section 727.01 of the Ohio Revised Code.

In 1980 the City Council established the entire corporate limits as a special street tree maintenance district. The city then paid the Hamilton County Auditor’s Office and Computer Division to measure the front footage of each parcel and create a computer file which could be used to calculate the amount to be billed each year. This was a massive undertaking since the front footage had never been measured. Each year the files must be updated as property is sold, subdivided or consolidated, or streets are added. These costs are paid for by the assessment, including the start-up costs.

Each year the City Council must pass by a three-fourths majority an ordinance of necessity and then a levying ordinance establishing the as-
The VO-50 saves on costly set-up time!

Time is money in the tree care business, and the time you save with Versalift puts money in the bank.

Fewer set-ups, more worktime are just two reasons the VERSALIFT VO-50 is the choice of tree care professionals from coast to coast. It's been field proven to be an effective, hardworking, and dependable tool.

The VO-50 gives you reach and movement others can’t match, and it’s done without troublesome cables or chains, meaning safer, low-maintenance operation.

To see a VO-50 on your work site, call or write today for more information and the name of your nearest VERSALIFT distributor.

It's TIME to check out VERSALIFT!
Tree Trimming Poles

- Versatile
- Durable
- Safe

SECTIONAL AND FIXED LENGTHS

The Jameson Safe-stik® series of fiberglass pruning poles and adapters offer all the durability, safety, and versatility professionals require. Our pole adapters are designed to permit the interchange of most standard industry pruner heads and pole saws.

Call or write today for details about our poles, pole sets and adapters.

FIBERGLASS

FIBERGLASS TREE TRIMMING POLES

The Jameson Safe-stik® series of fiberglass pruning poles and adapters offer all the durability, safety, and versatility professionals require. Our pole adapters are designed to permit the interchange of most standard industry pruner heads and pole saws.

Call or write today for details about our poles, pole sets and adapters.

JAMESON CORPORATION • SINCE 1956

Please circle 17 on the Reader Service Card

assessment rate and work plan for the following year. Once this is done, the city certifies to the county what to charge each of the 111,000 properties with front footage on the December tax bill. Front footage is defined as the linear distance of each property that abuts an accepted public right-of-way. Usually this is the width of the lot on the street in front; corner lots are assessed on both sides. Tax-exempt properties such as those owned by churches and governments also must help fund tree work.

About a dozen cities in Ohio are funding street tree work with this assessment, which was implemented by the state Legislature about 60 years ago. Currently, Cincinnati’s assessment rate is 10 cents per foot for trees (it is at least 50 cents per foot for decorative boulevard lights) which generates about $1.05 million annually along our 1000 miles of street. The average property owner pays $10 per year for street trees.

Contracting

a. The rationale

Prior to 1982, the city’s Highway Maintenance Department employed two, three-person, fully equipped tree crews that responded to street tree emergencies and complaints. As it does now, the Park Department had its own in-house tree crews. When Forestry was formed to care for street trees, the Highway Maintenance equipment was getting old and workers were needed for other duties. Thus, Forestry was free to try in-house or contracted crews. The Mayor’s Committee for Urban Greenery considered the matter and decided to follow the lead of the logging and utility industries and try contracting.

By contracting, the city could hire crews only when needed. Also, contractors have to comply with federal and insurance safety standards and would supervise work crews.

Other advantages were that the city would not have to pay for work not done to standards and property damages would probably be less since the contractors would be financially responsible.

Another key benefit was that if contracting did not work, it would be easy to hire and equip in-house crews, but not vice-versa.

After 10 years, contracting has been successful. Each good contractor is like a breath of fresh air. The staff learns new work methods and management techniques, sees different equipment, makes new friends and is professionally enhanced. Most important, our work is cost-effective since contractors are motivated by profit. In fact, a study on the city’s infrastructure done in 1987 by a group of local business people concluded that Cincinnati was getting more street tree work done for the dollar than any of the other cities they studied and that this was mostly due to contracting.

Over the years, Forestry has worked with all types of contractors, ranging from large well-known companies to three brothers who left their equipment near the job, rode their Harley-Davidsons to the city each day, did a marvelous job, then rode home at night to play in their country-western band. Large companies have ground stumps, as has a local one-man operation. That same man has dug tree planting holes with his stump machine for the city and as a sub-contractor to local nurseries. The landscape contractors have usually been smaller, local companies, some with their own nurseries. Apparently, all have been satisfied with their contracts since they have continued to bid on new work and have had numerous contracts.

Write to us at the address shown at the end of this article for copies of contract specifications.

Most of Forestry’s contracts have several things in common:

1. Forestry writes the detailed specifications and the Purchasing Department bids and awards the contract to the lowest, acceptable and qualified bidder.

2. Bidders can be disqualified for not having favorable references or a good track record with other city agencies, by submitting prices that are unrealistically low or not being able to supply a 100% performance surety, liability insurance and/or state workers compensation.

3. All of Forestry’s work—tree planting, pruning, removal and stump grinding—has been legally de-
fined as maintenance, not construction. Therefore, union prevailing wages, which apply to most construction projects, do not apply and our contractors may pay what they normally do on private jobs.

4. All tree work conforms to NAA technical standards and ANSI Z133.1 Safety Standards, while tree planting conforms to ANSI Z60.1 (AAN Nursery Stock Standards.)

5. All contractors must call Forestry the morning of each work day to report on what street or work order they will be servicing that day.

6. While working for Forestry, each contractor must put a sign on both sides of each piece of equipment and leave an information sheet at each house explaining the job. The signs, which state “Under Contract to Urban Forestry” and give our phone number, and the information sheets are provided by Forestry.

7. Liquidated damages are deducted for violations. For example, these might be $100 per day for each day the job is late in completion; $5 per day for each tree planting hole left open; and $10 per day if the contractor does not notify Forestry of the work location.

8. Contractors may bill the city only after all work on a street is completed, has been inspected by a staff member with the contractor and all corrections are satisfactorily made.

9. Almost all work is paid on the unit price, not an hourly rate. This makes the contractor responsible for production and keeps the staff concentrating on the quality of the work rather than hours spent. The staff can also better answer complaints that the city is paying a contractor to work on private property since the city pays for only public trees planted or worked on and the contractor is free to do a private job if he feels time permits.

10. The city holds 10% of each invoice as a retainer until the end of the contract in case damages occur that the contractor is reluctant to repair, several trees die and are not replaced, liquidated damages must be deducted, etc. When everything is proper and the contract is about to be closed, the final invoice is for the retainer held from all other invoices.

b. Emergencies

On big tree work, contracts are awarded for a renewable second year at the same prices unless one party withdraws at the end of the first year. Forestry receives written requests to work on street trees, inspects the trees, writes a work order and gives it to the contractor. The contractor must certify in writing that his company is qualified as a Z133.1 line clearing tree trimmer and may work around energized wires. The contractor also schedules his work citywide based on available labor and equipment and other work in the area.

Trees are either safety pruned or removed and a unit price per size class (10-inch diameter classes) is paid upon completion. All wood is stacked between the curb and walk for anyone to take. Cabling, bracing, fertilizing and other arboricultural work is paid by the hour, with a markup for supplies. About 350 such written requests are received each year involving about 375 removals.

---

**E-Z BEEVER BRUSH CHIPPERS...**

**QUIET...SAFE...LOW MAINTENANCE**

Introducing a revolutionary new style of brush chipper. The E-Z Beever have only one moving part...there are no hydraulics and no feed wheels, yet they feed material and throw chips as well as any chipper. Changing knives and changing chip size has never been this simple...both can be accomplished in minutes. The simple design means you’ll find your operating costs lower than ever, and you’ll be able to spend more time chipping and less time performing routine maintenance. If you’re in the market for a chipper, you’ll want to see the E-Z Beever in action. **Call today for a free video and the name of your nearest dealer!**
and 150 prunings. Maximum price per removal is $360. Most requests are resolved in a month, but some less serious ones are postponed until winter. Emergency stump grinding costs $44 per stump, regardless of size.

If Forestry must call the contractor away from unit work or out at night or on weekends to deal with a tree down in the street, then an hourly rate applies. The rate is about $70 per hour based on a two-person fully equipped aerial lift with chipper. About 300 such calls are necessary annually. The contractor must be at the work site within two hours of being called or there is a $50 liquidated damage for each half hour he is late. We have never had to charge this.

These services cost Forestry about $100,000 per year. The contract also allows work on any city-owned property if the controlling agency is willing to pay. This comes to about $50,000 worth of additional work for the contractor.

c. Planting

Forestry receives compensation, as calculated by the Council of Tree and Landscape Appraisers Guide for Establishing Values of Trees and Other Plants, for trees damaged or destroyed, and revenues from the sale of firewood and chips and reimbursements from other departments wanting trees planted on their properties. These funds, totalling about $40,000 per year, are spent planting trees citywide. Our landscape contractor has a yearly contract to supply about 10 species of trees in sizes from 1-1/2-inch caliper to 3-1/2-inch caliper, with bid prices for each. These trees are supplied from approved nurseries, planted with water holding polymer, and guaranteed for one year. Unit price per tree ranges from $70 to $295. There are also prices just for planting services when Forestry buys the tree and a price for removing a stump if one is encountered where the replacement tree is needed. The contractor is provided work orders in mid-summer for fall planting and in January for spring planting. A stump grinder or trencher is used to grind holes where Forestry has marked after underground utilities are checked.

One tree species is planted along both sides of the street on about 35-foot centers. More than 20 species are used in the entire planting. One contractor may get all 12 communities scheduled for planting, or only one. The lowest total price per community gets the job. Price per tree is about $100, and payments are made only when all work is completed along a street. If fewer trees can be planted on a street than called for, Forestry designates another street to be planted.

d. Preventive maintenance

In the scheduled neighborhoods, all big street trees to be removed are marked in June or July and all other trees are scheduled for a Class I NAA pruning, including elevating for street and road clearance, and clearance to signs, lights and structures. All wood larger than four inches is cut into 18-inch lengths and taken to an all-weather, secure, nearby woodyard and dumped by the contractor. All other debris is chipped, and the chips are also taken...
to the yard. Trees more than six inches in diameter are serviced with unit prices of about $40 per pruning and $100 per removal, regardless of size. There is a small amount of hourly work done to trim wooded rights-of-way for road clearance and private trees that endanger the street. Rates for a two-person manual crew has been about $55 per hour. The contractor plans his own work through the community, must certify himself to be an ANSI Z133.1 line clearing tree trimmer, and is paid for work done along each street only when it is done properly. He leaves informative literature at each house. About four communities are worked on each year, with from one to four contractors getting the work. About 500 removals and 2200 prunings are accomplished during this work that begins November 1 and ends by March 1. Forestry sells firewood and chips to the public to save landfill charges and generate tree planting funds that are used by community tree boards where the work was done.

About 800 stumps between the curb and sidewalk and ranging in size from six inches to more than 50 inches are removed annually from those communities where large tree preventive maintenance was performed. One contractor usually gets this contract for a bid of about $33 per stump, regardless of size. Stumps are ground to 12 inches below the surface, including all surface roots. Grinding debris is packed into the hole to an 8-inch mound, excess debris is hauled to the woodyard, and grass seed, fertilizer and straw are spread to complete the job. Literature is posted at each house asking that the mound not be leveled and that it be watered until the grass grows. The contractor grinds about 50 stumps per day, working from March to September.

Five years after a street is planted with 1-1/2-inch caliper trees, Forestry inspects all trees under six inches in diameter and issues work orders to a landscape contractor. Some trees need a corrective pruning while others need to be fertilized with slow release by the liquid injection method. Some need both. Power tools are not permitted and NAA Standards must be followed. Work is done from October 1 to March 31. Prices are $5 per tree pruned, $4.50 for fertilizing, and $9 for both. Staking costs $10, and the stake is removed after one year. This is a yearly contract which also includes a summer watering, if necessary. Cost is $3 per tree per watering, with 40 gallons applied by soil injection. About 2500 trees are worked on, with about 1000 being watered three times during the summer.

**e. Tree purchases**

Forestry purchases 600 1-1/2-inch caliper, balled and burlapped trees for volunteer planting in 12 communities to prepare the way for contractual planting. Cost per tree delivered to Cincinnati is about $40. Forestry also purchases 1000 trees for the city’s Spring Re-Leaf project, where families wanting one tree to plant by the street or in their front yard near the street, fill out a coupon published in local papers. These trees cost

### The Image Builder

**Arbortech Quality**

When quality work is your trademark, you need a quality image. Arbortech builds chip trucks that give your company a professional look and are equipped with all the performance features you need. Galvanneal steel body resists rust for years of service and good looks: big tool boxes organize your tools and carry them to the job site where you need them — adding to your efficiency; and convenient roof top ladder rack with heavy duty rubber coated rollers simplifies ladder storage and retrieval.

**Super Performance**

Put a streamlined Arbortech body on Ford’s 14,500 GVW Superduty and you have a big 12 yard load space at a small truck price. Superduty features the powerful 460 V-8 or economical 7.3 liter diesel engine. Standard equipment includes dual tanks, power steering, power brakes with rear antilock; and heavy duty front axle; with 5 speed O.D. manual or automatic O.D. transmission available.

**Call Today**

1-800-255-5715

Order your new 14,500 GVW units today from the industry’s largest chassis pool — or spec an Arbortech body to your own Ford Superduty. With 24 hour turnaround installation and leasing options available, we make it easier than ever to own a quality Arbortech chip body. Whether you are looking for your first new truck or an economical addition to your fleet, Arbortech chip body fits your image — quality, efficiency, performance.

Please circle 5 on the Reader Service Card

TREE CARE INDUSTRY - MAY 1991
about $35 each, are about 1-inch caliber, and available for individuals to pick up on a Saturday early in April. Left over trees are given to tree boards for volunteer planting in street triangles.

f. Technical services
For three years, Forestry has contracted with ACRT Environmental Services, Inc., to supply two technicians, with at least a 2-year degree in forestry, and a pickup truck with power tailgate, gas and repairs, a chain saw and hand tools. Technicians help inspect and clean up storm damage not severe enough to call out the more expensive tree service contractor, do much of the routine field work, and research property and right-of-way records. If one technician is off, there are separate rates for one person and a truck and overtime rates for evening calls.

Summary
What does the staff do if all the work is done by professional contractors? Planning, developing work and detailed specifications, administering contracts to assure that the quality and quantity of work is proper, monitoring the work of overhead and underground utility agencies, conducting public education, inspecting 400 tree work permits per year, and rendering professional services to other city agencies, all definitely make for a fun, busy time.

Recently, Forestry was transferred from Public Works to the Park Department and is undergoing a reorganization to fit in better with the new greenspace management responsibilities of that department, while also taking over the supervision of the park tree crews.

Steve Sandfort is supervisor of Urban Forestry, Room 425 City Hall, Cincinnati, Ohio 45202. Wayne Brinkman is a tax consultant, Gold Medal winner in swimming in the World Handicapped Olympics and Chairman of the Urban Forestry Board.

Pros And Cons Of Municipal Contracting

By Peter Gerstenberger

Municipal contracts, though not as profitable as some lines of work, can offer advantages to the company that does its homework. Here are some pointers to think about before you bid.

Know your costs
A federal law known as the Davis-Bacon Act requires that prevailing wages be paid on all federally funded construction work. Every state has what is known as a "mini Davis-Bacon law." Prospective contractors should understand how these laws apply to contracted tree work because they can drastically change labor and associated costs.

Consider your capital investment at the onset of the contract period. As a rule of thumb, don’t purchase any piece of equipment unless you expect to operate it more than 1000 hours annually. Consider short-term leases for extra bucket trucks or chippers or sub-contracting tasks like stump grinding to someone who is established in that area.

Know your rights
Ideally, specifications for the contract work and minimum requirements for the contractor should be spelled out in the bid proposal. Often, they are not. Based on his experiences, the president of one company suggests asking plenty of questions at pre-bid meetings. You should get a feel for whom you will be working with.

If you lose a contract to a low-ball bid, you may be able to seek an audit of the contractor’s payroll after the fact. If successful, the most you can hope to accomplish is to prevent that contractor from bidding low a second time.

Don’t forsake clients
In most cases, municipal contracts should be looked upon as a means of augmenting your existing work and/or growing your company.

One firm, after years of steady growth in residential work, went from doing 100% residential work in 1989 to doing 100% municipal and utility contracting in 1990. “We took a beating,” the owner says. The firm increased its gross sales by 15% in its first year of contract work, but it also doubled its payroll and associated costs. To make matters worse, the owner deliberately low bid the work, seeking to get established with the clients. The move hurt not only profits, but cash flow.

Abiding by the specs
Many contractors, unfamiliar with municipal work, dislike the strict contract specifications that seemingly de-emphasize the importance of the tree. Sadly in some cases, municipal tree programs are administered by people who don’t understand trees. Improving the overall care of the trees in these cases is a matter of educating town officials and getting increased tree care budgets, a process in which the contractor can have a role.

Consider your schedule
Municipal contracts can augment a company’s other work and provide steady year-round work for valued employees, if the contract allows work to be done during slow times. The experience with municipal winter work can give your crews the desire to work in the winter.

Contract work such as removals may provide the opportunity to hone skills, improve efficiency and allow you to purchase equipment, all of which may prove valuable to your residential work.

Seek advice from your peers
Talk to people, especially former or current contractors who aren’t bidding, to get advice. Know who will be responsible for implementing the contract—a reasonable supervisor can smooth the wrinkles and rough edges of a poorly written contract, but a poor supervisor can turn a creampuff contract into a nightmare.
CHIP & Grind Away The Recession

Morbark Disc Chippers

- MODEL 290

Asplundh Drum Chippers

- MORBARK MODEL 2010 DRUM CHIPPER
- CHIPMUNK
- WHISPER CHIPPER

Asplundh Buckets New & Used

- 6 FORD, CHEV., INTERNATIONAL W/LR45 & LR50's WITH CHIPBOXES $15,000 & UP.
- 30 OTHER BUCKET TRUCKS IN STOCK FROM $6,500

Rayco Stump Cutters

- 1620
- 1635
- 1665

- HYDRA STUMPER

160 SPECIALIZED TRUCKS IN STOCK

Please circle 24 on the Reader Service Card
Clarification

In your February issue of Tree Care Industry you show a picture and caption of our Brontosaurus brush cutting machine. The caption describes our machine as a large brush cutter used for non-selective clearing. This statement is simply not true, and I am writing this letter to describe for you and your readers a little about the versatility of the Brontosaurus brush cutting machine.

The cutting head (drum) is mounted on an excavator and takes the place of the bucket. Precise control of the head allows the operator to be very selective. Also, the excavator can reach approximately 20 feet in virtually any direction enabling the operator to cut from the top down on large trees, thereby preventing damage to low growing desirable species. Our company has been in the utility business since 1960 and has been involved with all types of brush control applications. I feel that this machine offers a more than viable alternative in terms of cost and quality to any other method being used today. I hope that this will clarify some of the misconceptions conveyed by your recent article.

Michael W. Brown
John C. Brown & Sons Inc.
Weare, N.H.

Super publication

Congratulations on a super publication. I enjoy your articles and practical information. It certainly continues to add to the professionalism in arboriculture. We are looking forward to a continued strong working relationship with the (National Arborist) Association.

Thomas Smith, president
Professional Grounds Management Society
Cockeysville, Md.

Letters should be addressed to:
Tree Care Industry, Editor
P.O. Box 1094
The Meeting Place Mall
Route 101
Amherst, N.H. 03031
A Complete Arborist Package Insurance Program*

Reduce your insurance costs up to 40%
Call us today
1-800-ARBORS-1

- High limits
- Low Rates
- Flexible Payment Plans
- Broad Coverages

Albiez Insurance Agency
2444 Morris Avenue, Union, New Jersey, 07083

*Not available in some states

Please circle 2 on the Reader Service Card
GET THE MOST OUT OF TREE CARE

Becoming a member of the National Arborist Association just may be the best way to get the most out of your money.

The NAA provides everything you need to succeed in business today. Whether you're big or small the NAA can make a difference.

The NAA offers Management Services, Safety Programs, Arborist Training Programs, and represents its members in Washington while also simplifying Government Regulations. The NAA can increase the Productivity, Efficiency and Profitability of your firm.

Mail in the coupon below with your payment right away! For more information call 1-800-REF-2-NAA.

Special Offer

Join now for just $175*. You will also receive a free copy of NAA's Personal Safety training video.

*Your annual dues in 1992 will be based on your firm's gross sales for 1991.

[Box for selecting the option]

☐ YES, I want to belong and take advantage of this "SPECIAL OFFER"! Enclosed is my check for $175 for dues through 1991.

Name: ___________________________ Company: ___________________________
Street: __________________________ State: __________ Zip: __________
City: ____________________________ State: __________ Zip: __________
Phone (_______) ______________________

Check enclosed payable to NAA  VISA  MasterCard

Account # ___________________________ Expiration Date: __________

Signature: ___________________________

The National Arborist Association
The Meeting Place Mall
P.O. Box 1094, Amherst, NH 03031-1094
Membership available to commercial Tree Service Firms only.
The Cycles Of Life

By Donald F. Blair

Planning for the disposition of your estate might be the most grim, unpleasant thing you will ever have to do. Still, it is something that we as businessmen—regardless of the size of our companies—will have to deal with.

These days, writing a will calls for more than an "I, being of sound mind," declaration. I suggest contacting your insurance agent and attorney and either work with them or have them recommend an estate planner. Take stock of your business and equipment. Planning your estate is just another step in successful business and personal management.

I think most of us believe that we've got plenty of time to get our affairs in order, but do we? Have you prepared a will? Do you have burial wishes set down? Do you have enough life insurance to provide for your survivors or at the very least, leave your survivors debt-free?

Some people think they don't have enough property to constitute an "estate." But if you've got a favorite fishing rod you want your nephew to have, or if you want the guys to crack a bottle of Rebel Yell in your memory at a meeting, or if you want a few bucks to go to the National Arborist Foundation or the ISA Research Trust, you've got an estate. And if your wishes aren't in writing, they aren't going to happen.

Life is short. How short was painless demonstrated to me on March 13. I attended the funeral of Michael Mastrangelo, the chief ranger of the C&O Canal Park District. He probably had the distinction of administering the narrowest and longest park in the national system. One hundred eighty-four miles from Georgetown to Cumberland, Maryland, it is only as wide as its easement for the towpath and canal right-of-way. For a ranger, this was a dream job. Michael was a champion pistol shot, an avid collector of baseball memorabilia and a loving husband and father of three young children. Park Ranger Mastrangelo was 42 years old.

Attending his funeral made me think of several things that I feel are important enough to share. The service and burial were a fitting honor to a man such as Michael. At least 100 uniformed rangers and 50 uniformed members of local, state and federal law enforcement agencies attended, their badges shrouded in black mourning ribbon. Seventy-four official vehicles with lights flashing were in the cortege. Elder members of the American Legion stood at attention near the grave. The rangers and police officers stood in formation. A military honor guard bore the casket and performed the solemn and elegant ritual of folding the flag that draped the casket. The sergeant of the guard presented the flag to the widow. Three volleys pierced the cold air and "Taps" signalled to the heavens that another soldier was on his way. Standing in the cold wind and blowing snow, I was impressed with the professionalism of the rangers, policemen and soldiers. I was honored for the widow by the dignity and ceremony that these professionals brought to the services. I noticed a large bouquet of flowers from the Fraternal Order of Police.

Some personal thoughts

As I left the cemetery I thought about a hypothetical funeral for an arborist. His family and friends would be there. If he had served in the military, there would be an honor guard. But there is no FOA (Fraternal Order of Arborists) to send flowers to the bereaved. We don't have a universal arborist uniform (unless it's faded jeans and a dirty T-shirt), so a formation of active tree workers would probably detract more than it would add to a dignified ceremony. As impressive as the ranger 4-wheel drives and pursuit vehicles were, I'm not sure I'd want a line of "Euc Man" trucks following me to the grave. Our image is a worn record but still something to consider. If anybody would be interested in helping to organize the FOA, drop me a line.

The other thing I thought about was that we don't know how much time we have. Michael Mastrangelo was only a few years older than I and about the same age as many arborists reading this article. If you were to die tomorrow without warning of a massive heart attack as Michael did, or get too close to 12,000 volts as many in our profession do, are your affairs in order?

I've got more fun and pressing things to do with my time than to pick out a plot, plan my funeral arrangements and figure out what to do with all my stuff in a will, but I feel it's a responsibility that I owe my wife and son.

I don't believe Michael had considered his fate anymore than I had before March 13. I hope somebody out there is moved to make some plans that will save his family a great deal of sorrow and hardship.

Donald F. Blair, president of Sierra Moreno Mercantile Company, Big Pool, Maryland, is an arborist, entrepreneur and teacher.
It only takes one insecticide to protect your customers from top to bottom. By using TEMPO® 2 Ornamental Insecticide, you can treat home lawns, flowers, plants, shrubs, even trees with unmatched effectiveness.

Reduce exposure. TEMPO uses 80% less active ingredient than the leading insecticide, so there's 80% less chemical to impact the environment. And that reduces the potential for exposure to your customers and their pets.

Since TEMPO is a broad-spectrum, advanced generation pyrethroid, it gives excellent control at low dosage rates. This allows you to control tough surface-feeding pests like sod webworms, cutworms, armyworms, even ticks without yellowing the grass or interfering with fertilizers or fungicides.

A Little Tempo Will

On top of all that, TEMPO is practically odorless.

No phytotoxicity on ornamentals. Using TEMPO on all your customers' flowers, plants and shrubs is an excellent way to control leaf-feeding insects without burning the leaves or blooms.

Plus, the fast knockdown and long residual of TEMPO make it effective on tough pests like pine shoot moths, webworms and sawflies.

And again, 80% less chemical means less handling, mixing and disposal hassles, as well as less impact on the environment.

Less chemical needed to spray trees. Nothing is better on trees than TEMPO. Because not only are you spraying less

TEMPO effectively controls surface and leaf-feeding pests like tent caterpillars, Japanese beetles and bagworms.

Please circle 21 on the Reader Service Card
Cover The Whole Lot.

chemical into the air, TEMPO also costs less than other leading insecticides.

In addition, TEMPO is compatible with all types of spray equipment and won't cause downtime due to clogging.

And it's effective on such leaf-chewing and leaf-skeletonizing insects as gypsy moth larvae, oakworm caterpillars, leafrollers, bagworms and cankerworms.

With 80% less active ingredient, it only takes a little TEMPO to cover a lot of ground. And that has big advantages for you and your customers.

For more information, contact the Mobay Corporation, Specialty Products Group, Box 4913, Kansas City, MO 64120 (800) 842-8020.
Minimum Wage Raised

On April 1, the minimum wage increased to $4.25 per hour. Initially, small businesses—defined in this case as a business with less than $500,000 gross annual income—were intended to be exempt from the bill. But due to a simple technical error, this group is also subject to the higher rate.

Sen. Dale Bumpers (D-Arkansas) introduced Senate Bill 349, and House Resolution 1237 was also introduced to exempt small business. Those bills were not passed at the time of this printing, so the increase in wages is expected to affect all segments of the business community.

Dave Voight, staff member for the U.S. Chamber of Commerce, feels that an exemption for small businesses may occur in the future. Possible financial implications on the tree care industry may be subtle as wages currently paid by commercial tree firms are already above the new minimum. According to the 1990 National Arborist Association wage survey, the median national wage is $7.50 for a groundperson, $10 for climbers and $11.25 for crew leaders. Of the more than 1000 commercial tree firms that belong to the NAA, 16% responded to the survey.

‘Strike Bill’ Gaining

Under current law, employees who participate in economic strikes or non-union work stoppages may be permanently replaced, but the proposed “Strike Bill” (H.R.5/S.55) would change that. The proposed legislation would allow two or more employees working in concert to demand unconditional reinstatement after any work stoppage. A concerted activity is defined as two or more employees joining to request or demand changes in wages, benefits or working conditions.

The legislation would also prevent employers from offering permanent jobs to workers called in as replacements during an economic strike or non-union work stoppage. Strikers now are guaranteed immediate reinstatement at the end of an unfair labor practices strike.

Even though employees engaged in economic strikes may be permanently replaced, not all rights to reinstatement are forfeited. Such employees retain preferential rehiring status when their former positions or any other position for which they are qualified become available.

The implications of this bill could be far reaching for both union and non-union employees in the labor negotiating scheme. The bill has 202 cosponsors in the House and 30 cosponsors in the Senate. The Senate Labor and Human Resources’ Labor Subcommittee concluded hearings on March 12.
Introducing the Model 2000 self-propelled stump grinder. Featuring a 20 HP Magnum Kohler engine and our commitment to quality, this machine is built to last. The heavy-duty features of the 2000 include a 1 inch thick cutter wheel, 21 inches in diameter with teeth and a 3-foot tongue cylinder. A 39 inch arch enables grinding of stumps 12 inches below and 34 inches above ground. Timken tapered roller bearings for quality in the pivot head means longer life out of the wear points. Weighing 1200 lbs. and measuring 35 inches wide, the Model 2000 is one rugged machine.

To celebrate the introduction of the Model 2000, we are offering a special package deal to our customers. Purchase the Model 2000 for $7895 and you will also receive a new 5 x 10 foot trailer designed to carry the 2000. (Smaller trailer sizes available also.) If you would rather place it in the back of your truck, pay just $7195. Either way, you are getting a quality Carlton stump grinder at a special price.

DIESEL MODELS POWERED BY DEUTZ

Model 6800 Turbo Deutz Diesel

With a 68 HP turbo-charged Deutz diesel, the 6800 can handle the big jobs. The 1 inch thick cutter head is 31 inches in diameter with teeth. Featuring a 92 inch swing, this workhorse cuts 24 inches below ground and 44 inches above. This unit also features the Carlton trademark: the 25-foot remote control for safe operation.

Model 4100 Deutz Diesel

Tree stumps know the end is near when the 4100 arrives. With a 41 HP, 3-cylinder Deutz diesel, it can tackle the tough jobs while saving you money on fuel costs. This unit features an 80 inch swing and cuts 15 inches below ground and 40 inches above. The unit is mounted on 14 inch tires and comes standard with remote control operation.
Community Trees
They’re The Focus Of Task Force In New Hampshire

By Mary K. Reynolds

“I think it was Mark Twain who said that people define the land and the land defines its people,” said New Hampshire’s Gov. Judd Gregg in announcing the formation of the Governor’s Task Force on Community Trees in New Hampshire. “In New Hampshire, that’s always been very true; the land defines the people, defines their culture, defines their way of life. And the quality of the land is, of course, in a large part set by the quality of our trees, especially in our communities.”

That was in 1989, when Gregg established the Task Force in cooperation with State Forester Jack Sargent, of the Division of Forests and Lands, Department of Resources and Economic Development; the Cooperative Extension Service; and the Society for the Protection of New Hampshire Forests. Sixteen individuals representing a variety of interdisciplinary expertise were asked to serve on the Task Force. The three cooperating agencies assigned employees to provide technical staff support. Task Force members represented the New Hampshire Association of General Contractors, the New Hampshire Municipal Association, the New Hampshire Association of Public Works Directors, the New Hampshire Plant Growers Association, the state Department of Transportation, a Tree City USA community, a mayor, the New Hampshire Arborists Association, the New Hampshire Landscape Association, the Granite State Landscape Architects Association, a legislator, a tree pathologist, an experienced volunteer coordinator, a community tree warden, and a member of the Garden Club of America.

Community trees are trees in residents’ front yards, along streets, on the edge of town, on village greens and commons and wide tree-lined avenues. Community trees are borrowed trees in parks, cities, towns, along streets and in open public spaces. Trees enhance beauty, reduce air pollution, deflect or absorb noise, modify extremes of temperature, protect soil and watersheds, create wildlife habitat, add economic value to towns and cities, provide scenic outdoor spaces for people and provide useful products. The tradition of tree wardens early in the 20th century throughout New England grew out of the need to provide for and care for community trees. In fact, New Hampshire’s tree warden legislation was adopted in 1901 and remains as one of the oldest laws in New England. New Hampshire today is the second most heavily forested state in the country—about 87%. But having lots of trees and having lots of safe, healthy and attractive trees in communities are two different matters.

The purpose in establishing the Task Force was to encourage the planting and maintenance of trees in communities, better inform citizens about the value of trees, and foster a heightened appreciation of trees. Task Force members set a goal of making communities, businesses, and residents aware of what they can do with safe, healthy and attractive trees to reduce energy requirements; help fight global warming; contribute to New Hampshire’s rural, picturesque setting; benefit wildlife; and conserve soil and water. Working committees were formed to evaluate existing community tree situations and make recommendations relative to several areas: laws, regulations and ordinances; Arbor Day; planting and maintenance; public education and communication; volunteers; and funding.

Task Force activities throughout the yearlong study were many and varied. For example, in 1990 Arbor Day celebrations were more widespread because of the interest and
concern of Gregg and his wife, Kathy, and the Task Force. The tradition of planting trees in the last week of April was revived, continuing the ritual that has long held significance for Americans interested in the quality and beauty of their environment. More than 100 community Arbor Day programs were held, with the governor and his wife participating together or singly in more than one-third of those events. Nurseries statewide donated large handsome trees which were planted as part of those Arbor Day celebrations. As the year drew to a close, the Task Force working committees submitted reports upon which 14 recommendations were established and presented to the governor in December 1990.

Today there is still much that needs to be done to increase the quality of trees in New Hampshire's communities. Tree maintenance is the major need of community trees, especially pruning of both mature and young trees. A Task Force working committee confirmed that approximately 50% of the trees planted each year in New Hampshire are planted incorrectly. Many trees are poorly chosen, planted in the wrong location, planted too deeply or pruned improperly. Further, there is a tendency to develop enthusiasm for tree planting with subsequent wane and neglect for tree maintenance. Trees need to be cared for after planting, including watering especially the first year. Arboricultural techniques have been studied and refined over the years; modern arboriculture needs to become mainstream practice.

In New Hampshire, some 30 to 65% of the shade tree resource of 25 to 30 years ago has been lost in the last 20 years to Dutch Elm Disease and maple decline. Disfigured trees stand—a travesty to the beauty, dignity, ecology and tradition of trees in the New England landscape. Nationally, there is a continuing need for more research to document the economic, health, ecological, recreational, social, aesthetic, and energy savings benefits of trees as well as on better trees—how they grow, how to control their growth, where and how to plant them, how to care for them, how roots grow, and how to reduce construction injury and damage. More study is needed on the benefits of community trees and their role in urban landscape ecosystems to guide future planning, policy and management at the state and community level.

Unlike states with communities with large urban populations, 65% of New Hampshire's communities have populations of less than 2500 and only 9% of the state's 234 communities have populations exceeding 10,000. As a result, promoting the need for and awareness of community tree programs presents a special challenge. Small communities have limited resources for community programs, including community trees. With community trees among the governor's priorities, this may provide the impetus to develop programs that will ensure a long-term commitment by towns and cities for the establishment, maintenance and protection of community trees. We have a long way to go to achieve community tree programs in all New Hampshire communities. The goal is to reach community leaders and citizens at the local level.

The governor's Task Force on Community Trees has challenged New Hampshire residents and state, community, and business leaders to have trees in their parks, towns, cities, along streets, and open spaces to enrich and sustain their lives.

"We have had the vision of having tree-lined streets in our communities," said Gregg. "So in order to build on that tradition as we see the pressure of urbanization setting upon us, I think it is important to focus on this together, try to address it, and come up with ideas and thoughts on how we can best promote the planting and improvement and protection of those characteristics, those things which are so identifiable to New Hampshire......simply, our trees in our communities."

Mary K. Reynolds is an urban forester, Division of Forests and Lands, New Hampshire Department of Resources and Economic Development. She directs the state's America the Beautiful program, is a member of the New Hampshire Arborists Association and serves as chairperson of the Certification Committee.

New Hampshire's Task Force on Community Trees is an example of the type of state organization required to administer state grant money from the president's America the Beautiful program.
OSHA Coverage

By Steven Semler

Section 4 of the federal Occupational Safety and Health Administration statute exempts states and municipalities from coverage by federal OSHA. This, however, does not necessarily mean that municipalities' performance of tree care work automatically is exempt from OSHA regulation. The federal OSHA statute permits states to establish their own OSHA "state plans" which displace or supplement federal jurisdiction within that state.

The hook is that many of these "little OSHA" state plans can and do cover public employees. And most of these states simply adopt the federal OSHA regulations as their own. Thus, through this "back door" approach, many municipal employees performing tree work are subject to OSHA regulation even though they are exempt from the federal OSHA statute.

Several states have state plan OSHA that cover public employees, while others have similar plans but do not impose fines or criminal penalties for violations. Still others have proposed creation of state plans, which are pending but appear dormant. These proposed plans presumably would cover state employees if implemented.

As a result for many municipal employers in the tree care industry, OSHA regulation is a reality.

States with state plan OSHA:

State plan OSHA, but no fines or criminal penalties:
Indiana, Maryland, North Carolina, Puerto Rico, Utah.

State plans proposed:
Alabama, Arkansas, Delaware, District of Columbia, Florida, Idaho, Massachusetts, Missouri, Oklahoma, Rhode Island, Texas, West Virginia.

Steven R. Semler is a partner in the Washington, D.C., law firm of Semler & Pritzker, which exclusively represents management with respect to labor law matters. Mr. Semler is labor counsel to NAA and several corporations in the tree care industry.

TRAINING IS EXPENSIVE BUT TRY COSTING OUT IGNORANCE

ACRT, Inc. provides seminars in practical and technical:

Tree Care
Line Clearance
Urban Forestry
Utility Forestry

ACRT, Inc. can also provide CUSTOMIZED TRAINING at your LOCATION

For further information or to register, please call or write:

ACRT, Inc.
"The Convent"
227 N. Depeyster Street, P.O. Box 219
Kent, OH 44240-0219
1-800-622-2562

"The Convent"
ACRT's new home 1-14-91
formerly St. Patrick's Convent

TRAINING IS EXPENSIVE BUT TRY COSTING OUT IGNORANCE

ACRT, Inc. provides seminars in practical and technical:

Tree Care
Line Clearance
Urban Forestry
Utility Forestry

ACRT, Inc. can also provide CUSTOMIZED TRAINING at your LOCATION

For further information or to register, please call or write:

ACRT, Inc.
"The Convent"
227 N. Depeyster Street, P.O. Box 219
Kent, OH 44240-0219
1-800-622-2562

"The Convent"
ACRT's new home 1-14-91
formerly St. Patrick's Convent

TRAINING IS EXPENSIVE BUT TRY COSTING OUT IGNORANCE

ACRT, Inc. provides seminars in practical and technical:

Tree Care
Line Clearance
Urban Forestry
Utility Forestry

ACRT, Inc. can also provide CUSTOMIZED TRAINING at your LOCATION

For further information or to register, please call or write:

ACRT, Inc.
"The Convent"
227 N. Depeyster Street, P.O. Box 219
Kent, OH 44240-0219
1-800-622-2562

"The Convent"
ACRT's new home 1-14-91
formerly St. Patrick's Convent
"Experience Arboriculture at it's Best!"

67th ANNUAL
ISA CONFERENCE & TRADE SHOW

Branching Out to Shape the Future

For Registration Information:
Call, Write or Fax
303 West University
P.O. Box 908
Urbana, IL 61801
Phone 217•328•2052
FAX 212•328•7483

INTERNATIONAL SOCIETY OF ARBORICULTURE

AUGUST 11-14, 1991 PHILADELPHIA, PENNSYLVANIA

Please circle 16 on the Reader Service Card
Working In The City

By Skipper Hammond

Two years ago, Jack Kelly was hired to fill the newly created position of city arborist in Cambridge, Massachusetts. The job description called for someone to develop and direct a comprehensive program of planting and caring for the city's trees. The job also demands skill in dealing with people.

The hiring board was looking for someone with expertise and enthusiasm, a professional and a politician. That description fits Kelly, who grew up in the area and is at home on Cambridge streets. After serving in the U.S. Marines, he returned to Cambridge and took a temporary job working on the grounds at Harvard University. During his two years there, Kelly "developed a keen interest in the trees and learned by bugging the horticulturist."

His interest led him to study trees at the University of Massachusetts at Amherst. After graduation, he worked for several years at Frost and Higgins, a major landscape contractor in the Boston area, then returned to Harvard for seven years as an arborist.

In addition to his professional expertise, Kelly brings the energy and charm of his Irish ancestry to the job. "His enthusiasm is catching. Now, when we plant and people come in contact with him, they realize the value of maintenance," says Mary Kennedy of the Public Planting Committee, which helps residents and businesses get street trees in front of their property.

"He has to negotiate between the extremes in the public, from those who think a tree's life is sacred to those who think all trees are just a nuisance," agrees Matthew Foti of Foti Tree Service. "He has the ability to work with all kinds."

The city's commitment

The city's decision to hire an arborist reflected a growing commitment to the urban forest. That commitment, according to Kennedy, now means that trees "don't have to compete with potholes and playgrounds for the Department of Public Works' attention. We feel free to plant more trees now because we know there will be follow-up by the city as they mature. And they can be planted in the spring when they should be, even though that's when street repair makes the heaviest demand on the DPW's time."

Kelly, who is a member of the Massachusetts Arborists Association executive board, believes his experience at Harvard prepared him well for his city job. "I learned a lot there about how trees grow in a less-than-desirable location," he says. "And I learned to look at individual trees, give each one individual attention."

To assure that each tree in the city gets its share of attention, Kelly started a program of regular maintenance, working tree to tree, street to street. Previously, tree work was catch-up in nature, with crews running to emergencies. Now trees get better care and the city budget gets a break.

His years at Harvard also provided Kelly the opportunity to work with private contractors hired by the university to care for its outstanding urban forest. Kelly's reputation spread and now professional contractors are more willing to bid for jobs with the city.

Says Foti, one of Kelly's colleagues...
on the MAA executive board, "Kelly invites bids only from professionals, from those he is confident will do a good job and use safety measures. So nobody turns in a low bid by doing poor work. Everyone is a professional, educated, familiar with the latest developments and methods. So I'm more willing to bid now with these better standards."

Kenneth Greeno, of Greeno Tree Service in nearby Concord, has worked for many years on trees on streets bounding the campus and he can see the improvements that have been made since Kelly has headed the city's program.

"I started to bid for jobs in Cambridge because of Jack. I just finished some work on street trees for Harvard. They were in bad trouble, with brick paving right up to the trunks—no pit at all," Greeno relates. "That wouldn't have happened if Kelly had been there back when they were planted."

Kelly also has changed construction methods. Now, when a tree's roots break a sidewalk, the workers grade the sidewalk rather than hack off the roots. When contractors resurface streets or sidewalks, they no longer scrape off six inches of soil. And when they rebuild sidewalks, they leave a much larger pit. To help them understand why these changes are being made, construction workers attend workshops where they learn how a tree's root systems work.

"Antrim Street will be the test," Kelly says. "Half of it was redone before these new methods were used, half after. In a few years, after the trees have adjusted to having fewer roots, that's when you'll see the effects of street resurfacing. I expect that the end of the street where the soil was scraped away, that's where you'll see fewer and fewer leaves."

Tree climbers and other workers employed by the DPW also receive training. Whenever possible, Kelly schedules them to work alongside a contractor's crew to learn from them. He provides them with literature and home study courses in arboriculture, and he encourages them to attend MAA educational programs. "They can go as far as they want. But you have to enjoy the job to be good at it," he says.

**Benefits for the city**

Having a professional arborist has "increased our competence a hundred percent," says William Sommers, until recently the city's commissioner of Public Works. "We can deal with complaints better. There's more consistency in the work, and this consistent work reveals needs that hadn't been taken care of, had been forgotten. Contractors have more respect for us (the DPW and Public Planting Committee) because we have a qualified liaison."

While investing in trees might not have an immediate payback, the city's commitment has already drawn several awards. Last year, Cambridge was named a Tree City USA by the Arbor Day Foundation, and the MAA awarded it $60,000 worth of pruning and planting at the wooded park surrounding Fresh Pond, the city's reservoir. In addition, Cambridge workers were the
big winners in tree climbing contests at an Arbor Day celebration. With assistance from the Massachusetts Department of Environmental Management, the city received a large grant from a private donor for tree planting, and it is in line for a grant from Mass ReLeaf, a state planting program supported by contributions and fines against businesses that violate air pollution regulations.

Mass ReLeaf money is reserved for municipalities that show active community involvement and where planting can make a real difference. To qualify for funds, a city or town must have an effective tree program with a designated tree warden, explains Elizabeth Kline. "Many places just name somebody, anybody," Kline says, "but Kelly is really qualified. He's doing great things and is so enthusiastic."

Trees are important in cities not just for beautification, but also for using up carbon dioxide and for cooling urban hot spots, says Kline. "Trees are important everywhere, not just isolated individuals. It's more dramatic and the neighborhood takes notice, takes more interest in them." Kelly also tries to increase neighborhood involvement by asking residents to help select the species when the city replaces street trees.

Jim Kelley, of Cambridge Landscape, says Kelly likes to be present to answer residents' questions when his company prunes or removes trees. "People in Cambridge are more environmentally concerned than most. Whenever they see our trucks, they assume we are going to cut down the tree," he says.

Kelley explains that a tree will often look fine, even when there is potential danger, but "Jack can spot when a tree needs help, even if it's not obvious to the people who live there. By pruning before there's a real problem, like a branch down in a storm, his crew doesn't have to be running around for emergencies, and the trees are healthier. Jack is good at showing how pruning can help the tree."

One of Kelly's next projects is to plant oaks in front of City Hall, even though they grow slowly and don't have the best chance for survival. "The City Hall of an old city like Cambridge deserves impressive trees, not just small, quick-growing ornamentals," he says.

**Role of education**

Education and involvement with trees begin early in Cambridge. For 20 years, environmental science teacher Kathi Brown has been taking fourth- and fifth-graders on daylong field trips to Fresh Pond, where she teaches them how to find answers to their questions.

"If they find a seed and ask where it came from, I tell them to look up at the trees, find the same kind of seed," Brown says.

Brown also emphasizes observational skills to make her students more aware of the environment and how it works. The children use magnifying lenses to look at leaf scars and stethoscopes to listen to the ground under trees.

Kelly hopes this kind of education will increase appreciation for trees and eliminate vandalism. "I want these kids and their kids to be able to walk down tree-shaded sidewalks and know people like themselves are responsible for those trees being there," he says.

"We're reaping the benefits of what our parents and grandparents did. The most important thing I can do is select trees that will assure a forest for future generations."
What Makes a SATURN Worth YOUR Investment?

The overcenter SATURN has been designed for maximum maneuverability and ease of operation. COMPARE A FEW OF SATURN'S FEATURES:

ONE HAND CONTROL — safe, easy-to-work in all climates.

360° CONTINUOUS ROTATION — ball-bearing turntable for smooth travel and versatility.

OVERCENTER UPPER BOOM ACTUATION — no chains or cables for reliable, low maintenance operation.

EXCLUSIVE OVERCENTER UPPER BOOM ELBOW ASSEMBLY — cover protects entire cylinder-link assembly from debris and damage.

LOWER BOOM ACTUATES 138° — provides for more side reach.

STRONG, RECTANGULAR FIBERGLASS BOOMS — for more strength and less flex.

THE TECO SATURN is a field-proven tree trimming unit with working height up to 57 feet, providing the most reach and versatility.

TECO
PO Box 9247
Fort Wayne, IN 46809
219/747-1631
FAX (219) 747-6732

Call or write today for the name of the distributor in your area.

Please circle 31 on the Reader Service Card
RISE ABOVE THE REST

SOUTHCO INDUSTRIES, INC. OF SHELBY, NORTH CAROLINA MANUFACTURES QUALITY.
WE KNOW, BECAUSE THEY CHOOSE TO USE A QUALITY CRANE IN THEIR MANUFACTURING/ASSEMBLY PROCESSES.

WITH 40 MODELS FROM WHICH TO CHOOSE, 3-TON THROUGH 34-TON, THERE'S A SIZE TO FIT YOUR NEEDS.

BUY QUALITY — BUY THE BEST PM CRANES

CraneQuip Corp.
P.O. Box 308, Peoria, IL 61651
Phone (309) 694-1919
Fax (309) 694-1077
800-352-5897

Please circle 11 on the Reader Service Card

Get Ready For TCI EXPO 91

Plan to attend TCI Expo 91, the second annual trade show and education conference sponsored by Tree Care Industry magazine. It will be held December 5-7 at the Hyatt Regency and the Ohio Center in downtown Columbus, Ohio.

Last year’s trade show was a huge success, and this year’s show will be even better! Every key supplier of equipment, supplies and services will be at Expo 91. You will get to see state-of-the-art equipment and talk with key people behind the equipment. You will be able to compare and make informed buying decisions that will increase the productivity and profitability of your operation.

For this year’s seminar program, we asked arborists what subjects were most vital to their success and livelihood, then we found the leading authorities on those subjects.

Mark December 5-7 on your calendar now, and watch future issues of TCI for more information about the biggest arborist show of the year, TCI Expo 91!
Howard Leight Industries introduces the 0132 hearing protector, featuring soft foam pads which cover the entrance to the ear canal without being deeply inserted. This dielectric protector features an N.R.R. of 25 when worn under the chin and is comfortable to wear for long periods of time since the foam softens with body temperature. Low cost replacement pads make the 0132 economical. For further information contact Howard Leight Industries, 28 Levering Circle, Bala Cynwyd, Pa. 19004. Phone: 215-667-6046.

ROOTSinc introduces Nobur N Natural Wetting Agent and Soil penetrant. Nobur N is a steroid saponin extract from the desert yucca plant. Nobur N does not have to be watered in after applying and it will not burn or discolor leaf tissue when used in hot or dry weather. Steroid saponins are natural plant fluids extracted by pressure, not chemically, so there is no danger of burning on any crop or of groundwater contamination. For more information contact ROOTSinc, 25 Science Park, New Haven, Conn. 06511. Phone: 1-800-342-6173.

Dri-Dek provides a low-cost way to protect your sensitive equipment and valuable cargo from damage caused by rough roads, tough handling, or just plain everyday use. Dri-Dek shields sensitive equipment, holds cargo in place, drains water and lifts equipment above wet compartment floors. Try any quantity of Dri-Dek absolutely free for 20 days. For further information contact Dri-Dek Corporation, Kendall International Centre, 2706 South Horseshoe Drive, Naples, Fla. 33942 Phone: 1-800-348-2398.
HELP WANTED
Hot career opportunity in tree care sales—Come work where America plays—in Palm Beach County on Florida's Gold Coast. Expanding tree care company needs aggressive, knowledgeable person experienced in all phases of tree care sales. If you want...

- Year-round work
- Unlimited advancement potential
- A prestigious address
- Full benefits
- Generous compensation based on experience

Call Zimmerman Tree Service, 407-845-1045.

Arborist/crew leader position open for responsible individual with an interest in urban tree care. Some experience necessary but will train. We are an established company in Chicago's northwest suburbs that offers an excellent salary and benefit package commensurate with qualifications and experience. Please contact Rodney, McGinty Bros., Inc., 3524 Long Grove Road, Long Grove, Ill. 60047. 708-438-5161.

Tree spade and big trees (6-12)—We are looking for a multi-talented individual willing to start out as sales and actual field production. Capable of performing the entire operation from sales, actual field production, maintenance and inventory replenishment of eight-acre nursery of big trees w/drip irrigation system to getting check from a satisfied client. Commission/salary of 25% of sales (Labor & Labor Burden). Call 914-457-5552 M-F for interview.

Salesman wanted—experienced, capable of running a satellite office—Chicago western suburbs, 708-354-1181.

Arborist/Supervisor: Now accepting positions for our Sacramento office. Great opportunity for career growth. We are a division of Environmental

Please circle 19 on the Reader Service Card

SKYWORKER

- Largest Parts Inventory in U.S.
- Same Day Shipments (most items)
- Technical Assistance
- Used Equipment For Sale
- Rebuild Facilities
- All Makes Trimming Equipment

AMERICAN HYDRAULICS, INC.
Rt.#4, Box 4688
Hartwell, GA 30643
404-376-3192

SKYWORKER

Please circle 4 on the Reader Service Card

Now Fanno Gives You a New Edge on Pruning

Pruning is a breeze with our revolutionary TRI-EDGE design. We've combined the best—Japanese High Technology and Fanno Quality.

- Blade is Japanese manufactured to our custom specifications
- The 13" razor sharp blade has 6 teeth per inch
- Durable, marine grade laminated hardwood handle.
- Also available: The same high quality TRI-EDGE for your polesaw designed to fit on Fanno, Corona or Snap-cut socket head.

FAVNO INTENATIONAL

Please circle 12 on the Reader Service Card
Care, Inc., a leader in the Green Industry. Job includes scheduling, training and development of crews. Must have good knowledge of proper pruning and safety procedures. We are members in good standing with ISA and NAA. Please send confidential resume to: Arbor Care, 825 Mabury Road, San Jose, CA 95133 Fax: 408-437-1817.

FOR SALE


Hardware and software, by an arborist for the arborist. For more information about the industry's best-selling package, call or write Arbor Computer Systems, 117 Weston Road, Westport, Conn. 06880. 203-226-4335.

Used equipment for sale: Chipmore 12-inch drum w/Ford 6-cylinder gas engine; 1978 Olathe 6-inch drum w/Ford 6-cylinder gas engine; 1971 Wayne 12-inch drum w/Chrysler V-8 gas engine; 1980 Chipmore 12-inch drum w/Ford 6-cylinder gas engine; Wood/Chuck 112-inch drum w/Ford 6-cylinder gas engine; Wood/Chuck Hy/Roller disc w/Ford 4-cylinder gas engine (2.3 liter); 1988 Vermeer 1250 chipper w/Perkins 4.235, 80-hp diesel engine, machine has 271 hours on it; 1987 Model 100 Brush Bandit w/Ford 4.23 gas engine, S/N 1009; 1985 Morbark Eeger Beever w/Cummins diesel engine, S/N 2085; Model 90 demo Brush Bandit w/Wisconsin VG-412, 37-hp gas engine, S/N 1191; 1990 Model 90 demo Brush Bandit w/Wisconsin VG-412, 37-hp gas engine, S/N 1237; 1990 Model 90 demo Brush Bandit w/Wisconsin VG-412, 37-hp gas engine, S/N 1238; Model 90 demo Brush Bandit w/Wisconsin VG-412, 37-hp gas engine, S/N 1211; Mighty Bandit demo w/new Onan 20-hp gas engine, S/N 2235; CB-90 demo chipper/chip box combo w/Wisconsin VG-412, 37-hp gas engine; 1989 Model 100 demo Brush Bandit w/Cummins 4B3.9 diesel engine, S/N 2698, machine has operated about 40 hours; Model 200+ demo Brush Bandit w/Hercules D-2300 diesel engine, S/N 3998, machine has operated about 50 hours; Model 200+ demo Brush Bandit w/Cummins 4B3.9 diesel engine, S/N 3595, machine has operated about 40 hours; Model 100 Brush Bandit w/Deutz F5L 912, 83-hp air-cooled diesel engine; Mighty Bandit PTO demo, S/N 2233. Contact Bandit Industries, Inc., 517-561-2270.

Hardware and software, by an arborist for the arborist. For more information about the industry's best-selling package, call or write Arbor Computer Systems, 117 Weston Road, Westport, Conn. 06880. 203-226-4335.

THE HOLAN 819 TREE TRIMMER
FINE DESIGN AND FACTORY DIRECT PRICING

Holan designed the 819 Tree Trimmer for the professional arborist. The Holan 819 features 270° of upper boom and 125° of lower boom articulation, a 55' working height, velvety smooth, full-pressure controls, a full 3/4 free-flow return line for minimum heat build-up and maximum tool life, and the same rigid rectangular booms found on all Holans. The Holan 819 is the most productive and dependable tree trimming machine available.

FACTORY DIRECT PRICING ON HOLAN 819s—MOUNTED ON CHASSIS AND READY TO GO—MEANS NO WAITING FOR THE BEST EQUIPMENT AT THE LOWEST PRICES. When you need equipment, you need it NOW, not in four to six months. Holan 819s are ready to roll from coast-to-coast.

And when you own a Holan 819, you're backed by the strength of Holan's nationwide support team of distributors, mobile service technicians and six factory service centers. So wherever you have a job, you know that service and support is only a phone call away. CALL TODAY FOR MORE INFORMATION.

THE HOLAN 819 TREE TRIMMER
FINE DESIGN AND FACTORY DIRECT PRICING

Holan designed the 819 Tree Trimmer for the professional arborist. The Holan 819 features 270° of upper boom and 125° of lower boom articulation, a 55' working height, velvety smooth, full-pressure controls, a full 3/4 free-flow return line for minimum heat build-up and maximum tool life, and the same rigid rectangular booms found on all Holans. The Holan 819 is the most productive and dependable tree trimming machine available.

FACTORY DIRECT PRICING ON HOLAN 819s—MOUNTED ON CHASSIS AND READY TO GO—MEANS NO WAITING FOR THE BEST EQUIPMENT AT THE LOWEST PRICES. When you need equipment, you need it NOW, not in four to six months. Holan 819s are ready to roll from coast-to-coast.

And when you own a Holan 819, you're backed by the strength of Holan's nationwide support team of distributors, mobile service technicians and six factory service centers. So wherever you have a job, you know that service and support is only a phone call away. CALL TODAY FOR MORE INFORMATION.
1973 50' HiRanger on Ford C-750 utility, 9.00x20 (90%), 5 + 2, positrackion, in daily use, good condition, $17,500; 1983 Bean Rotomist, 100K, 300 gal., s.s. tank, on 1968 Chev., mint condition, $8500. Call 203-429-9972.

Take a look at our newly designed portable diesel powered stump cutter on video. You be the judge. Kinetic. 1-800-422-9344.

Condor Ind. presents the most powerful, impressive far-reaching deep root injector available on the market today. Applies polymer water saving crystals best (also available). For demonstration or a demo tape: FAX 213-822-1360 or phone 213-821-4131. Looking for new dealers. Condor Ind., 2554 Lincoln Blvd., Suite 107, Marina Del Rey, Calif. 90291.

Aerial bucket trucks—Hi-Ranger, Asplundh, Sky Worker—most major brands—40' to 95'. Also, brush chippers, stump grinders, tree spades, log loaders, and Rayco stump cutters. Parts for aerial buckets. Allied Utility Equipment Inc., W 204 North 11509 Goldendale Road, Germantown, Wis. 53022. Phone: 414-255-6161 24 hrs.

Fox stump grinder model 18E, very low hours, 16 hp. Kohler self-propelled w/spare cutterhead. $3500. Leave message. 703-951-0117.

Very well established Los Angeles area tree service for sale. All equip., client lists, employees, 10-year lease on yard and office in very prime location. Gross income $550,000 per year for last 5 years. Been in business for 11 years. Very loyal and impressive clients! Must move!!! Sacrifice $180,000 firm. Serious inquiries only to: TCI, P.O. Box 1094, Amherst, N.H., 03031 Dept. GPO

Classified rates: $40 per inch (1-inch minimum), payable in advance. Send ad and payment to: Advertising Department Tree Care Industry P.O. Box 1094 The Meeting Place Mall Route 101 Amherst, N.H. 03031

KEMP WEST, INC. 206-334-5572 FAX: 206-334-5366

KDX MULCHER

The most efficient and cost-effective brush management system available.

* Safe along roadside
* Pipeline maintenance
* Powerline clearing
* Mounts on any excavator

FINANCING AVAILABLE

Call (315) 386-8273 DAY OR NIGHT

Please circle 25 on the Reader Service Card

Please circle 30 on the Reader Service Card

Please circle 18 on the Reader Service Card

Please circle 12 on the Reader Service Card
Please circle 7 on the Reader Service Card

**LIST OF ADVERTISERS**

<table>
<thead>
<tr>
<th>Reader Service Number*</th>
<th>Page No.</th>
<th>Reader Service Number*</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ACRT, Inc.</td>
<td>24</td>
<td>18 Kemp West, Inc.</td>
<td>34</td>
</tr>
<tr>
<td>2 Albiez Insurance Agency</td>
<td>15</td>
<td>19 Maib, Inc.</td>
<td>32</td>
</tr>
<tr>
<td>3 American Arborist Supplies, Inc.</td>
<td>20</td>
<td>20 J. J. Mauget Co.</td>
<td>3</td>
</tr>
<tr>
<td>4 American Hydraulics, Inc.</td>
<td>32</td>
<td>21 Mobay</td>
<td>18</td>
</tr>
<tr>
<td>5 Arbortech</td>
<td>11</td>
<td>22 National Arborist Association</td>
<td>16</td>
</tr>
<tr>
<td>6 Asplundh Mfg. Div.</td>
<td>Inside Front Cover</td>
<td>23 Northeastern Associates, Inc.</td>
<td>28</td>
</tr>
<tr>
<td>7 D. A. Beam Enterprises, Ltd.</td>
<td>35</td>
<td>24 Opdyke, Inc.</td>
<td>13</td>
</tr>
<tr>
<td>8 Beever Sales Corp.</td>
<td>9, 31</td>
<td>25 Professional Tree &amp; Turf</td>
<td>34</td>
</tr>
<tr>
<td>9 Brother's Truck Sales</td>
<td>14</td>
<td>26 Rayco Manufacturing, Inc.</td>
<td>10</td>
</tr>
<tr>
<td>10 J. P. Carlton Co.</td>
<td>21</td>
<td>27 Shindaiwa, Inc.</td>
<td>Inside Back Cover</td>
</tr>
<tr>
<td>11 CraneQuip Corp.</td>
<td>30</td>
<td>28 Southco Industries, Inc.</td>
<td>27</td>
</tr>
<tr>
<td>12 Fanno Saw Works</td>
<td>32</td>
<td>29 Stump Removal Co.</td>
<td>36</td>
</tr>
<tr>
<td>13 G.F.X. Corporation</td>
<td>36</td>
<td>30 Tamarack Clearing, Inc.</td>
<td>34</td>
</tr>
<tr>
<td>14 Holan Manufacturing Co.</td>
<td>33</td>
<td>31 TECO, Inc.</td>
<td>29</td>
</tr>
<tr>
<td>15 H. D. Hudson Manufacturing Co.</td>
<td>24</td>
<td>32 Time Manufacturing Co.</td>
<td>7</td>
</tr>
<tr>
<td>16 International Society of Arboriculture</td>
<td>25</td>
<td>33 Vermeer Manufacturing Co.</td>
<td>Back Cover</td>
</tr>
<tr>
<td>17 Jameson Corp.</td>
<td>8</td>
<td>34 Western Tree &amp; Landscape Supply</td>
<td>6</td>
</tr>
</tbody>
</table>

*Circle this number on Reader Service Card for more information on this advertiser.
A Boom Of A Test

By Thomas M. Morgan

The Norway Maple (Acer platanoides) was imported into the United States in the 18th century by William Hamilton, a Pennsylvania landowner, to decorate his estate. Today, it lines countless streets and landscapes and is one of the major shade trees in our urban and suburban inventories. It even grows wild in many of our forested areas and has become a valuable lumber source.

Recently, however, we have noticed a major problem on our tree-lawn trees. In 1990, we had several trees uprooted in non-traditional fashion. Healthy-appearing trees with average canopies, good to fair growth rates, no obvious defects, etc., were uprooting in low to medium wind storms (from 15-40 mph) that came from an unusual wind direction—primarily from the South.

When we inspected the root systems, we found that many of the fine feeding roots were dead. Northern Ohio, as well as much of the country, had a severe drought in 1988 followed by two very wet growing seasons in 1989 and 1990. The roots died from thirst one year and drowned the next two.

As a result of these uprootings, we implemented a test that we call the "boom test." Using our bucket truck, we place the upper boom against the trunk approximately two-thirds of the way into the canopy. A man stands on the ground near the trunk and inspects for a shifting or "loose" root zone. Using this new test, we have been able to remove more than 20 potentially hazardous, but normal-appearing, Norway Maples which could have been that 2 a.m. emergency.

Thomas M. Morgan is city forester in Cleveland Heights, Ohio. He assured us that his use of the bucket did not place any unreasonable stress on mechanical components. The test has been modified so that an arborist in the bucket pushes or pulls on a sturdy limb. This helps the crew detect potentially hazardous trees.

Do you have a story for From the Field? TCI will pay $50 for published articles. Submissions become the property of TCI and are subject to editing for grammar, style and length. Entries must be submitted by field workers and must bear the name of the worker and his employer or they will not be considered for publication. Articles and photos must be received by the first day of the month for the following month’s issue.
SHINDAIWA BURES THE COMPETITION.

At just 8.6 pounds, our Shindaiwa 360 is one lightweight that really packs a wallop. It challenged some of the biggest names in the woods and left 'em in the dust.

THE MOST POWER.
THE LEAST WEIGHT.

Our 360 delivers 2.5 horses of raw power right out of the box. Which makes the 360 the most powerful saw of its size on the market—powerful enough to handle 14" to 16" bars with ease. It's a perfectly balanced, lightweight, high-revving machine with an anti-vibe system so well designed that it makes wood cutting positively enjoyable. Even the sound of its exhaust tells you this baby was built to perform.

SMALL ON SIZE.
BIG ON FEATURES.

The 360 works like a pro 'cause it's built like one. It's the only saw in its class with every one of these big pro saw features:
A one-piece electronic ignition for fast, reliable starts; an adjustable clutch-driven automatic oil pump for better chain oil economy; a 2-ring piston for long-term performance; a 2-stage air filter for added engine protection; a captive recoil spring for long service life; a replaceable Micarta rope guide for easy maintenance; a one-piece 4-bolt muffler for added quiet and a fully adjustable carburetor that's boot mounted to absolutely eliminate vapor lock.

SAFETY FIRST.

Safety is enhanced by rear hand guards, safety chain brake, throttle interlock, low kick-back chain, a reversible low-kick sprocket nose bar and a rubber-coated chain catcher. All standard. The 360 also features a full 6-point anti-vibration system, so it's surprisingly comfortable to work with. It's less fatiguing. More productive.

BUILT TO LAST.

Our new 360 is built to log the hours. All of which will really fly by. Because unlike bulkier saws, the Shindaiwa 360 is actually fun to cut with.

AND SPEAKING OF STRENGTH...

Shindaiwa chain saws are backed by one of the strongest dealer networks in the country. So you'll always have the parts and service you need. When you need them.

EVEN OUR GUARANTEE IS STRONG.

We're so proud of our new Shindaiwa 360 that we back each one with a 7-day money back guarantee: Try our 360 for one full week. If you're not convinced it's the best small saw you've ever used, we'll buy it back. No questions asked. That's one tough guarantee. But then again, it's one tough saw.

shindaiwa
WE SIMPLY MAKE THEM BETTER.

11975 S.W. Herman Rd., Tualatin, Oregon 97062

Please circle 27 on the Reader Service Card
Money may not grow on trees, but it sure does when you move them! As a result, Vermeer Tree Spade owners are earning tens, even hundreds, of thousands of dollars each year filling the needs of homeowners, buildings and developers, golf courses, institutions, plus highway and public works departments all over the world. And only Vermeer offers you the world’s complete line and the world’s largest production model, the 9400.

Big trees mean improved property values, instant gratification for your customers ... plus a solid profit for you as a new venture or new profit center within an existing business.

Discover today’s environmental answer for tomorrow’s treeless landscape needs. Send today for a free book on the profitability behind moving trees. From Vermeer ... the money movers!

Ask us about our full-year parts warranty.

Vermeer Manufacturing Co.
Pella, Iowa 50219 U.S.A.
800-829-0051
In Iowa (515) 628-3141

"THE DIGGIN' DUTCHMAN"
Vermeer
The Quality Shines Through...

Please circle 33 on the Reader Service Card