The biggest breakthrough in the greening of America began in 1970. That's when turfgrass specialists at Pennsylvania State University completed development of a remarkable fine-leaved perennial ryegrass with all the advantages of ryegrass and none of the drawbacks. They called it Pennfine.

Now, just six years later, the success of their undertaking is evident. On golf courses and athletic fields. In parks and cemeteries. And on public grounds across the country.

Proven in tests. Among the nine perennial ryegrasses tested over a five-year period at University Park, Pennsylvania, Pennfine ranked finest in texture. Most resistant to disease. First in density and decumbency (low growth).

The University Park test results were only the beginning. Over 5,000 test kits with seed samples were distributed over the entire country in answer to requests from turf professionals wanting to test Pennfine. The results confirmed the University Park findings.

Most importantly, Pennfine established a new standard of mowability. Some other perennial ryegrasses, cut with the same mower, left ragged, fibrous tops that quickly turned brown. Pennfine's softer fibers cut smooth and clean.

Proven from coast to coast, from North to South. Pennfine's durable beauty has been demonstrated at prestigious sites all over America. From the lawns at an historic national landmark to the greens at a nationally-renowned golf course.

Besides possessing the ability to stand up under heavy traffic, Pennfine germinates rapidly. That makes it ideal for winter overseeding in the South. And, its non-competitiveness allows a smooth spring transition to bermudagrass.

Proven quality control under the Plant Variety Protection Act. You can be sure that all Pennfine Perennial Ryegrass meets the same high standards, because Pennfine is covered by the Plant Variety Protection Act. That means every pound of Pennfine is certified. You are assured, by law, that it's produced exactly as intended by the original variety breeder.

Prove it to yourself. To learn more about how Pennfine is changing the face of America — and how it can work for you — write: Pennfine, P.O. Box 923, Minneapolis, MN 55440.
Big enough for the jobs you need to do
Small enough so you can afford it.

The new “Little-Big” tractors from John Deere. Now there are two rugged and reliable tractors built to handle jobs too big for a lawn and garden tractor and too small for a farm or industrial tractor. The 22 PTO hp 850 and 27 PTO hp 950 are built to do the jobs you need to do.

The 850 and 950 have big-tractor features for big-tractor versatility. Their 3-cylinder diesel engines are liquid-cooled and fuel-efficient. Transmissions have 8 well-spaced forward speeds, 2 reverse, for creeping below 1 mph to a top speed for transport close to 12 mph. The “Little-Big” tractors turn within a 10-foot radius. Both have a fully-shielded 540-rpm rear PTO. A differential lock that engages on the go is standard along with a 3-point hitch (category I) and an adjustable drawbar. Tread width adjusts front and rear. Ground clearance is nearly 14 inches under the 850—more than 15 inches under the 950.

A lift-up hood makes an 850 or 950 easy to service. Adjustable, fully-cushioned seats make them comfortable. And behind these new tractors is your John Deere Dealer with an expert service staff, complete parts inventory, and a long-term commitment to keep them running like new.

If you have mowing, loading, plowing, digging, planting, or cultivating to do, an 850 or 950 Tractor will do it. See your John Deere Dealer soon for complete details or write for free literature to: John Deere, Box 63, Moline, Illinois 61265.

Choose from a family of tractor-matched implements for all the jobs you need to do:

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Nothing Runs Like A Deere®
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- Symposium Set on Wastewater Irrigation
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- Ransomes Acquires Wisconsin Marine
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### FEATURES

- **Species, Soil, Location Affect Tree Fertilization**
  - Ohio State University Professor Elton Smith discusses factors influencing tree fertilization needs. Determining fertilization rates and methods for tree species is included.

- **Rain Tower Provides Facts About Mulches**
  - A rain and slope simulator by University of California's Burgess Kay helps researchers compare the effectiveness of straw and prepared mulches for erosion control.

- **Greenbug Damage Found on Kentucky Bluegrass**
  - University of Illinois Turfgrass Specialists describe damage done by this member of the aphid family and how to control greenbugs after identification.

- **PARK MANAGEMENT PROFILE**
  - Parks are a bargain to taxpayers as shown in the industry survey results and two profiles of park systems in the U.S.

- **Costs and Returns of Maryland Sod Production**
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### Departments

- Vegetation Management
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- Products
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“I could sure use a rugged mid-sized rotary that really maneuvers.”
A lot of our customers have been wanting a mid-sized mower that's built tough to take it, and that's highly maneuverable at the same time. So our engineers came up with the amazing Turfcat 50/60.

It's amazing because it's absolutely packed with features that helps you get your medium-sized mowing jobs done faster and better than ever.

First, you have a choice of a 50" or 60" deck. (They're interchangeable.) Fully articulated, they closely follow ground contours so you get a smooth, even cut with practically no scalping.

Deck design lets you trim close, and also gives super clipping dispersion. The deck raises and lowers hydraulically for curb climbing and transport. And you can adjust cutting height from 1" to 4".

Then, the three-wheel, wide track design gives it great stability on slopes. And the foot-operated hydrostatic drive lets you steer and maneuver while changing speeds or going from forward to reverse.

How about hill climbing? It's a breeze with the power delivered by the husky 18-HP Kohler overhead valve engine. And you can expect a long engine life filled with good fuel economy.

Plus, it's quiet. All controls are within easy reach. And it might very well be the most comfortable riding rotary in the world.

Ask your Jacobsen distributor for a demonstration. And have him explain about the many fine features that customers want.

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

We hear you.

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Circle 123 on free information card
The public parks system of the United States may face serious cutbacks if California’s Proposition 13 and office-seeking politicians cause widespread reduction in public funds.

The success of local parks is evident in the two profiles in this issue (pages 35 and 42). Demand for convenient and inexpensive recreation increases steadily as more people realize the physical and emotional value of the park setting.

Nevertheless, two-thirds of park managers responding to our latest survey say park budgets are too low, by an average of 35 percent. Park managers are performing certain design, construction, and maintenance jobs on their own to save paying standard contractor rates.

If budgets are already at shoestring level, further cutbacks will seriously hinder maintenance of existing parks and eliminate construction of new ones. It appears that residential construction will continue at explosive rates and the pressure on parks will increase as more people live near them.

Meanwhile, politicians pretend there is fat in all government and promise tax cuts of 33 percent. Promising anything, hoping to fool a voting majority, many politicians ignore business facts of life which apply to government as well as the private sector.

Unfortunately, park directors have to bear the weight of bad performance, corruption, and incompetence of other government officials.

Up to now, park directors have been a relatively invisible group. In limited cases, park directors publicize what they can do. They act in response to public tastes in recreation, (such as hockey, bicycling, jogging, and handball), publicize the fact they are responsive, and consequently gain support for more park improvements. Image is vital to winning support for park bond issues.

The situation of parks simply cannot be combined with that of other areas of government. In the profile survey on page 31, we figure the cost per citizen per year for public parks is a mere $16. Take two people to Disney World and you've spent more than that.

The California situation is based upon a weakness in the laws of California, not the laws of the entire country. Real estate prices are escalating at 15 percent or more per year. If no controls are placed upon the rate of property tax increase, taxes will increase at the same rate.

Fifteen percent is not a good figure for other cost increases. Government should not expect 15 percent annual budget increases when most businesses operate at five to eight percent annual cost increases. Government should expect no more than businesses expect and controls have to be placed upon property taxes to limit it to what is actually needed.

Proposition 13 was an overreaction caused by poor lawmaking in California. The proper move would have been for the state legislators to react to public outcry by limiting property tax increase to the five to eight percent range.

For current politicians stumping for election or reelection to say more drastic control measures are necessary is also overreaction and should not be rewarded with votes.

Another factor plays a significant role in park budgets. As seen in the Brooklyn Park, Minnesota, profile on page 35, if a community can generate matching funds and apply for Federal programs they can double their budgets and do fantastic things for residents with their parks. Knowing how to obtain federal and state grants is essential for park managers to maintain a progressive park system.

Park managers are facing tremendous challenges now and greater ones in the future. Professionalism in park management is essential for a community to build and maintain a quality park system. Local governments especially need to sell their parks to residents, get support from park users, and publicize any new programs.

If a city doesn't have a park manager, it should hire one and make the needed investment to keep its parks alive. If that is not feasible, consultants should be hired periodically to review the city park program and to keep it up-to-date with regard to services and available grant sources.

Finally, now more than ever, park managers should support their professional associations and demand these associations to provide needed information.
Ownership of Davey Tree Expert Co., Kent, Ohio, will be turned over to its employees, board chairman Alexander M. Smith announced last month.

The acquisition of control by the employee group is expected to be completed in early next year, Smith said. Davey has about 2,500 employees, is licensed in 45 states and expects to do about $50 million dollars worth of business this year, according to marketing manager Henry D. Schmid.

The sale to employees insures that the corporate offices and headquarters will remain in Kent.

The essential features of the plan involve an offer by Davey to repurchase outstanding common shares, the establishment of an employee stock ownership plan and trust, and the sale of common shares to the trust and to employees.

The price for the shares of Davey in these transactions is based on a value of approximately $9 million for the company.

Smith said: "The selling shareholders are pleased to be able to transfer control of the company to the employees who have done so much to make this successful leader in the tree and lawn care field." Davey Lawnscape Service is a division of Davey Tree which operates in eight cities in the midwest.

The major shareholders are getting along in years," he added. He said that most of the stock is owned by relatives of the founder and they did not want to turn it over to outsiders.

New creeping bent released by Penn State
A new seeded creeping bent grass designed for golf courses has been released by Dr. Joseph M. Duich of Penn State University.

The new bentgrass — "Penn-eagle" — has been in development for 20 years.

Dr. Duich said that the new grass should be excellent for the entire course and offers the golf superintendent a grass that can be used for tees, fairways and greens. Penn-eagle is being grown by Penncross Bentgrass Growers Association, Salem, Ore., and will be marketed by the Tee-2-Green Corp., Kansas City, Mo.

The new bentgrass's attributes are listed as a tighter, more upright growing bent, that is finer-leaved than most bentgrasses. The broad genetic base offers greater disease resistance under a variety of climatic conditions.

The new grass is not overly aggressive but is competitive with Poa annua.

Development of the bentgrass began in 1958 with 158 vegetatively propagated bents, Dr. Duich said. From that broad base, 21 plants were selected for turf performance. These were selected in combinations of threes and tested for compatible flowering time. Some combinations were not satisfactory and eventually four sets of three plants each were put into turf screening to determine quality.

In 1963, 1965, 1969 and 1973, turf screening continued on the new variety and ultimately ended up with four parents to give the new grass a broad genetic base so that plants could withstand climatic differences. The new grass has been tested in a seven-state area with broad climatic variations and has also been under test in Canada.

Gravely acquires Hahn assets
Clarke-Gravely Corp., Clemmons, N.C. has purchased the operating assets of Hahn, Inc.'s Outdoor Products Div., Evansville, Ind.

The Hahn division manufactures and markets rear-engine riding mowers. The Hahn division manufactures and markets rear-engine riding mowers.
Landscape contractors top billion dollar mark

An accurate demographic sample of the Associated Landscape Contractor Association's membership has shown that the average commercial firm in the country has a business volume of $340,000. This average firm owns $122,000 worth of equipment, purchased almost $30,000 worth of equipment in the last 12 months and also purchased approximately $153,000 worth of supplies and materials during that period.

Categorized, a small contractor (under $1½ million) had an average volume of $244,000, presently owns $77,600 worth of equipment and purchased $16,000 worth of equipment during the past 12 months. He purchased $71,000 in supplies during that period.

The medium contractor figures are $915,000, $150,000, $15,000 and $256,000, respectively. The large contractor figures are $3,440,000, $686,000, $225,000, and $1,057,000, respectively.

Extrapolated to cover the entire industry, an estimated 3200 firms who are primarily landscape contractors, total annual business volume was $1,084,000,000. Equipment purchased over the last year amounted to $89,600,000 and supplies were $490,000,000.

ALCA network to provide wage input

ALCA has set up a network of landscape contractors to provide some input into the Davis Bacon Prevailing Wage situation when a government landscape job is put up for bid.

Basically, what happened in the past was that, when the government had a job to let in a certain county, they would send a request to the local labor hall, asking them to certify to the Department of Labor the wages that had been paid for landscaping work in that county during the past 12 months.

That figure would often get distorted and a landscape contractor who bid the job under his usual wage scale would suddenly find that his bid had been accepted but that he had to pay a much higher wage than normal. The contractor can go in and renegotiate at that stage, but success is questionable.

ALCA has been able to get the Wage and Hour people at the Department of Labor to send them a copy of the prevailing wage request. They then contact one of ten regional people across the country who in turn try to contact someone who has actually performed landscape work in that county.

While that sounds good in theory, it doesn't always work, according to John Shaw, Executive Director of ALCA.

There is a problem in finding someone who has performed work in that certain county. And when you do find someone, there is always the question of whether he will fill out the form and return it to the Department of Labor, says Shaw. Many feel that it behoves them to maintain a low profile with all the government agencies running around that check on them.

Accepting the responsibility could prevent a "horror story" such as bidding a job, while planning to pay $4.00/hour and suddenly finding out you get the same money but have to pay $11.00/hour.

NLA survey finds guarantee confusion

A postcard survey by the National Landscape Association has uncovered considerable disparity in the meaning of growing season in guarantees. Consequently, consumers have little understanding of the term. It should be explained exactly what is meant by growing season during sales transactions, NLA advises.