

This W-W Grinder heavy-duty Model 4-EV features a detachable elevator. It has a 36x52-inch hopper, loads up to truck heights of 7½ feet and has a 20-cubic-yard-per-hour capacity. It is powered by a 9 hp @ 3200 rpm Briggs & Stratton engine.



dig plant, expanded several times, now is in the midst of a huge industrial park.

As the company neared its 30th anniversary, the Lindigs decided to try to find the first machine sold. Records indicated the small shredder went to a nursery in the area.

"I visited the nursery hoping at

best to reclaim the rusted remains discarded somewhere on the grounds," Lindig said. Instead, the owner took him out back to where the unit was still on the job.

Lindig Mfg. gave the nursery a new shredder, then renovated the first machine to display it in the lobby of its new office addition.

BOOK REVIEW

THE CARE AND FEEDING OF TREES by Richard C. Murphy and William E. Meyer, \$5.95, Crown Publishers, Inc., 419 Park Avenue South, New York, N. Y. 10016.

Smaller tree companies and nurseries that do not have a formal training program will find this book is valuable as a basic text for the new and untrained employee.

The book actually is directed to homeowners, but content is comprehensive enough to carry the reader a long way toward becoming a knowledgeable treeman. Experienced tree specialists will find the 60 pages of charts a good reference. Included are charts on standards for nursery grown trees, tree sizes by maturity, rate of growth, bearing ages of fruit trees, diagnosis and prevention of common insect and disease problems, and others. Some 30 pages are devoted to tree identification, including a

four-page, full-color leaf chart for 55 varieties of U. S. trees.

Chapters deal with the value and makeup of trees, landscaping hints, planting, pruning, cabling, cavity repair, soil characteristics, fertilization, and pest and disease control.

Most chapters end with a "do and don't" review and a list of safety tips.

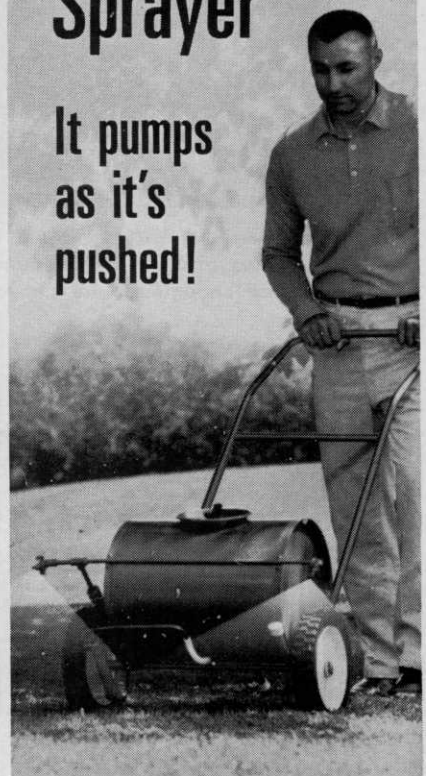
Richard Murphy is a tree-care specialist, having begun his experience as a boy working in the nursery his father managed. He studied at the F. A. Bartlett School of Tree Surgery and gained practical experience as a tree surgeon, landscaper and operator of his own tree-care business.

William Meyer, a journalist and currently director of public relations for the Community Corporation, has helped to present the book in language that laymen can understand. Meyer met Murphy 12 years ago as a homeowner with "tree problems" who had sought the advice of an expert.

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"Gee, I'm sure I parked my truck in here somewhere!" Well, the weed problem in Levelland, Tex., wasn't quite that bad. But it was bad enough for the city to initiate a clean-up campaign.

Levelland, Tex., Goes City-Wide Against Weeds

WE DON'T like weeds!" That's the message from Levelland, Tex., this summer — but what's really making news in this west Texas community is that officials are doing something about it.

When it comes to making their town look more attractive, the people of Levelland show a pretty keen eye. They've launched a campaign to "clean - up, fix - up, and paint-up" that in recent months has helped them win awards and growing recognition of their achievements in making the community a better place to live and work. The West Texas Chamber of Commerce, for example, has named Levelland a "Blue Ribbon City" this year. And the town is in competition for several national awards.

After this year's high rainfall, weeds started coming up a lot higher and heavier than usual. When they started popping through sidewalks and streets, around traffic lights, street signs, and fire hydrants, local leaders decided it was time to sound an alarm.

June Was "The" Month

A weed clean-up campaign was spearheaded by Levelland's Mayor, Bob Vaughn, who declared the month of June "TLC" month. "This meant 'Think, Look and Compare,'" explained Mayor Vaughn. "Our focus is thinking, looking, and comparing toward improving the appearance of the community and weed control is an important part of this idea."

The Chamber of Commerce has



City Manager Bob Sokoll (left) and Chamber of Commerce Manager Jake Street examine weed growth on the municipal court.

been particularly successful in encouraging local support and participation in the clean-up program. Through its meetings and broad distribution of special literature, newsletters, and bulletins, the Chamber has reminded the community of the need for a concentrated effort to control weeds.

Chamber members emphasized that weeds not only detract from beautification, but also they attract insects and rodents or can become serious safety or fire hazards if not properly checked. The Chamber also initiated a number of special awards programs to reward outstanding local efforts in civic beautification and clean-up.

The cooperation of a local businessman was especially helpful when it came to handling the unusually widespread weed infestations. Agricultural dealer Lon Ward of Farmer Fertilizers helped by putting together special information material on herbicides telling where, how, and when to use them. This was sent to all Levelland businessmen and community leaders.

As Ward put it, "We saw no reason why our town people shouldn't benefit from using modern chemicals for weed control, too — just like our farmers do. The benefits work both ways: saves time, labor, and expense, and gets the job done."

To help this idea along, Ward gave away dozens of sample packages of the herbicide Pramitol. Each package contained one pound of Pramitol — enough to cover a 100 square foot area. "A single applica-

tion is usually sufficient to knock down most existing weeds and then prevents them from coming back for some time," Ward says.

According to Jake Street, manager of Levelland's Chamber of Commerce, Ward's example is typical of the kind of support and help he's been getting from business leaders. "This is the real reason our clean-up and beautification program has been so successful to date," Street reports.

Bob Sokoll, city manager, backs this up. "Support has been first rate in many areas and we've seen considerable improvement in a relatively short time," Sokoll says. "More than 30 old buildings have been torn down or replaced and 10 more are on the way down. Other businesses have remodeled or modernized their exteriors and improved their surrounding property.

"At last count more than 100 vacant lots had weeds shredded, grass cut, and debris removed," Sokoll reports. "City-owned rights-of-way and alleys were spruced up, along with more than 100 acres around our municipal airport. And we've removed more than 100 junk car bodies from residential areas."

Santa Fe Railroad and Phillips Petroleum — both with sizable real estate in Levelland — are tying in their own beautification and clean-up activities with the community efforts.

Weed Control Will Increase

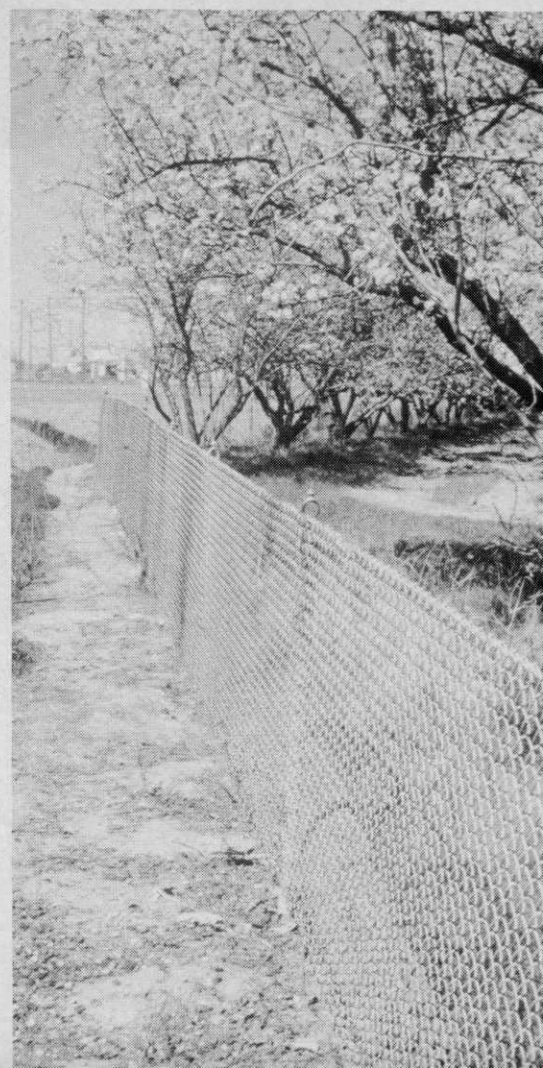
Both Street and Sokoll agree that weed control as such has been neglected in previous maintenance programs and both see an increased effort to exterminate them in key trouble spots.

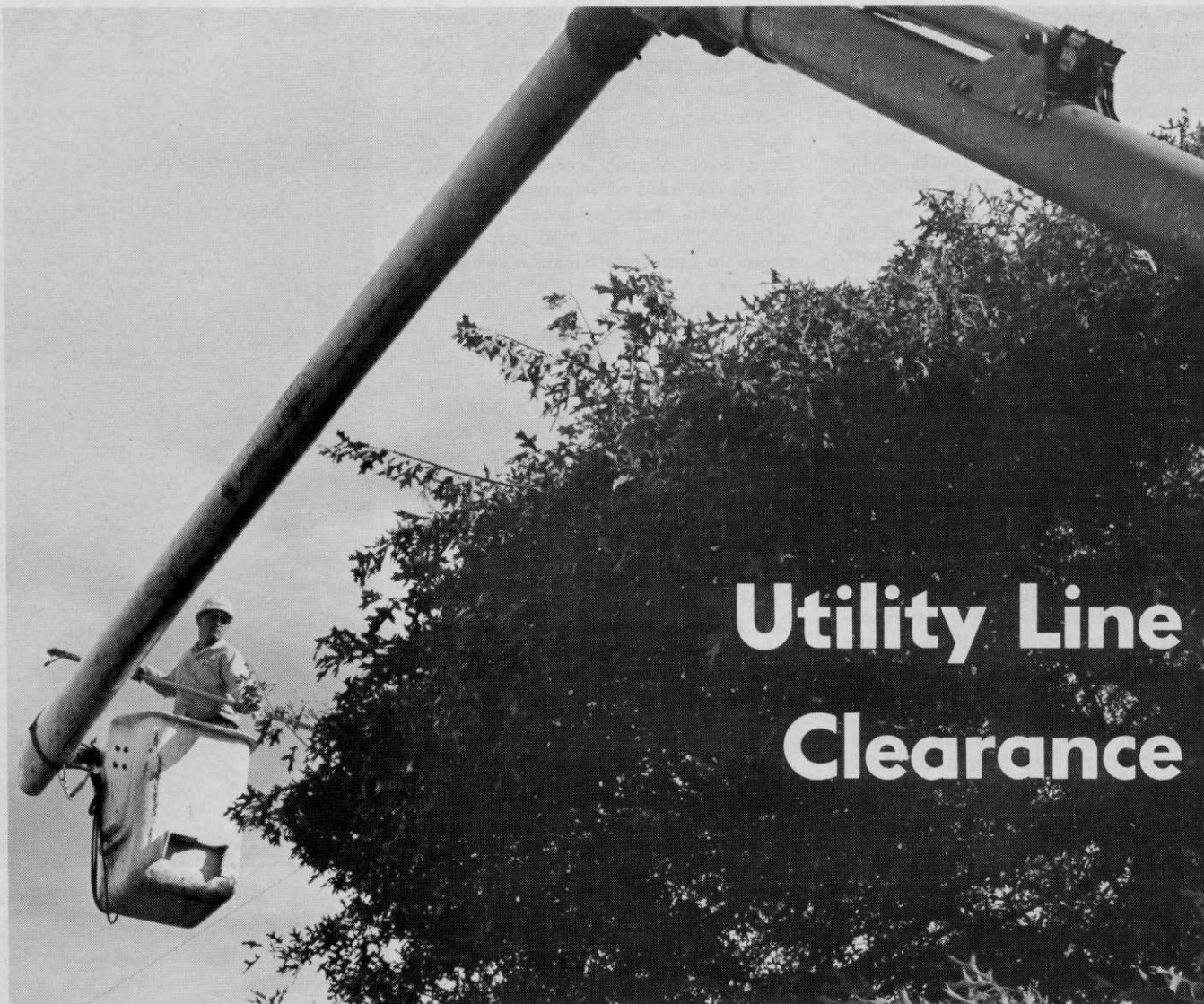
Streets and other paved areas where weeds have penetrated in downtown Levelland, for example, will be treated regularly with herbicides like Pramitol. Application is also planned around fences and guard railings and various installations at Levelland's new municipal airport.

"We also recommend herbicides to control weeds around cotton gins, elevators, storage buildings, lumber yards, parking and drive-in movie lots, and along exposed pipelines," Street adds.

"All in all, beautification is a noticeable fact in Levelland — and everyone likes the improvement!"

Fence rows that once looked like the one on the left were cleaned up with Geigy's Pramitol to look like those on the right.





Utility Line Clearance

By BERNARD E. SWISHER, Forester
Columbus and Southern Ohio
Electric Company

MOST TREE problems are a nuisance to those persons who do not normally work with them. Our line clearance program, therefore, is a kind of service function.

If a person has a tree problem and doesn't know whom to call, he may tell the operator, who will connect the caller with someone qualified to help. But there are misunderstandings.

We work on about 2,000 trees per week. About once a month, we get into some sort of trouble. About one tree in 8,000 gives us trouble.

A contributing factor is semantics — words mean different things to different people. Pretty much the same is true with determining the cost of line clearance.

This problem of costs — how we measure what we are doing; or how

do we estimate what we need in money for coming years — is common to all overhead wire utilities.

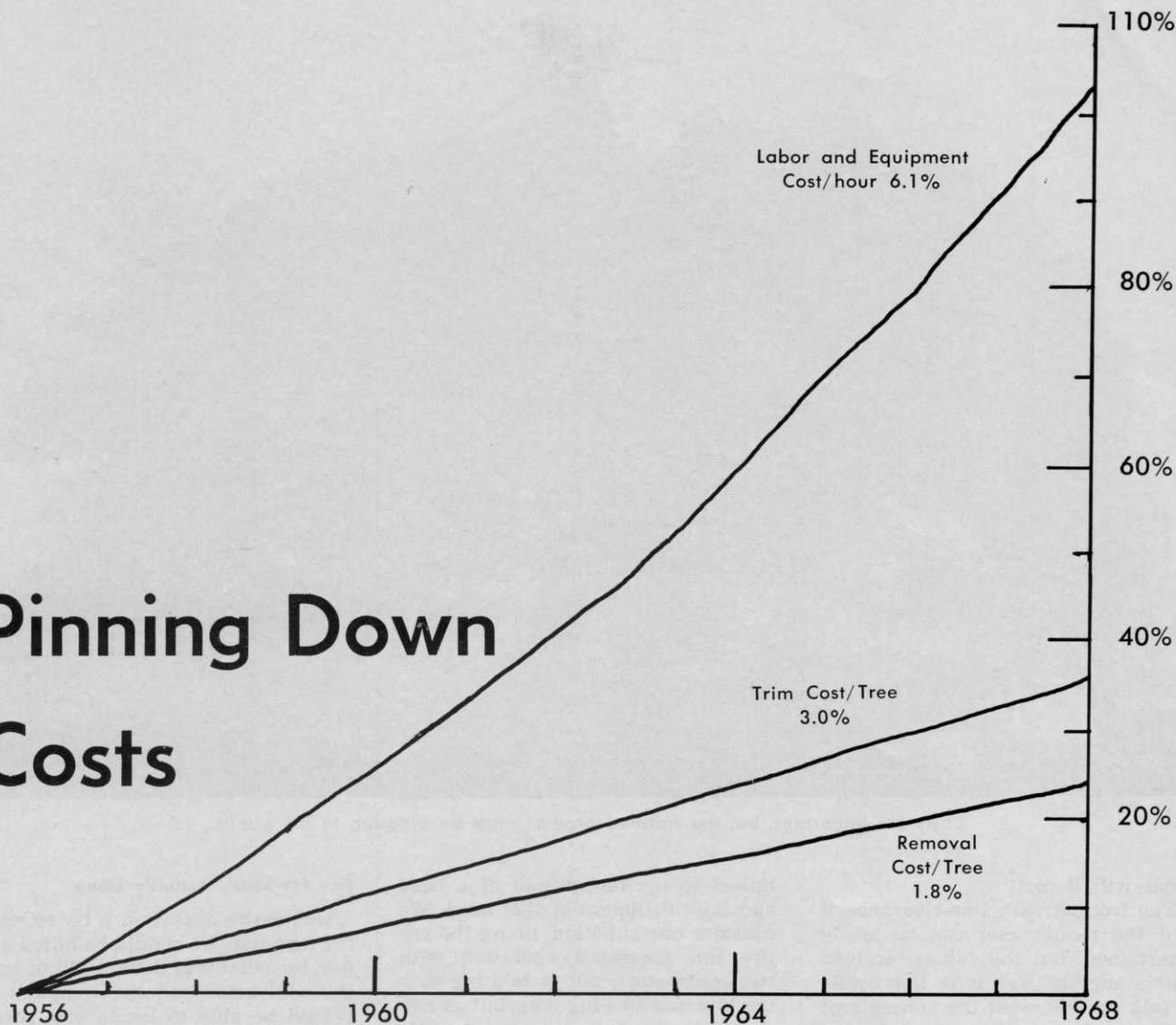
We have found that between 1960 and 1968 distribution maintenance consistently represents 78% in terms of dollars used. Transmission work has increased from 9% to 11%; sub-transmission maintenance has remained at 3%; and new construction work has dropped from 10% to 8%.

Concerning use of dollars by types of work, trimming accounts for 63% — up from 46% in 1960. Brush spraying has increased from 6% to 7%; brush cutting from 4% to 5%; and removal has decreased from 44% to 25%.

How to Evaluate a Program

Line clearance is a functional type of enterprise where success is solely dependent upon performance. All of us who work with trees know there is a lot more involved in tree costs than just the price of trimming. Before we can deal with the

Pinning Down Costs



problems of cost, we must understand them.

Frank Wagner of West Penn Power Company offers these points for evaluating a program:

1. Keep work methods attuned with administrative concepts and objectives.
2. Develop guidelines that can increase the effectiveness of expenditures.
3. Improve procedures, such as tailoring a crew to fit the job, converting to natural trimming, using chemical brush control vs. cutting.
4. Appraise results.
5. Be aware that success is dependent upon the workability or practicality of instructions and management support.
6. Results should demonstrate discretion, intelligent thought, sound economics, and a finished product pleasing to the eye.
7. Compliance with specifications should be in the vicinity of 90%.

Jack Stenberg of Consumers Pow-

er in Michigan says that good records help analyze the continuing, repetitive, and increasingly expensive work of maintaining adequate line clearance. Positive measurement of the annual work load helps provide an accurate guide for a well-defined budget, he says.

Jack is using initial surveys by area in conjunction with inspection and computerized records.

Inspect and Record

We should not sell ourselves short on good records and on-the-job inspection. Attitude, skill and knowledge is important. On the job, talking face to face, you can observe, hear and evaluate feedback. You get first-hand knowledge, which, in conjunction with good records, is a combination that's hard to beat.

There are many specific areas of cost that are dependent on things other than the actual trimming job: pre-planning, better maps and prints, job routing, travel time, new tech-

niques, crew size, disposal, wages paid, daily weather, season of the year.

Cost, or value analysis, and these are not exactly the same, consists of providing and using guide lines so that each area of expense is known and contributes its share to the solution of the problems.

Two of our recent efforts have been: To convert a truck and trailer-type chipper unit to a truck-mounted chipper, enabling a crew to work easier in congested alleys; and shifting from two- to five-man crews working from the same site to permit compensation for absenteeism. With two-man crews, if one was late or didn't show up, the crew was lost for the day.

Measurable Goal Needed

Regardless of what we foresters want, management also has a goal. Management wants to be able to measure that goal. What is being done? What else will do the job?



Costs are important, but the finished product must be pleasing to the public.

What will it cost?

The trouble with line-clearance is that the money cost can be easily ascertained; but the values received are intangible. Yet it is impossible to talk or deal with the concepts of value analysis without arriving at some standardization.

With some industries, a saving of 4% in costs is equivalent to a 20% increase in sales. Cost is important, but we also need quality.

As long as the contractor is making a satisfactory profit, his goal is the same as ours, continuous adequate service.

Our program is in three parts:

Achieving adequate clearance . . . at a cost we can afford . . . in a way that's pleasing to the customer.

Dispersed Management

No one can personally oversee 2,000 trees per week. So what do you do? You put good people in key spots and trust them to do the work. This is management by dispersion, or some management textbooks call this sort of thing "indirect control."

But different people do things in different ways. So in addition to trusting people, you must check once in a while to be sure they are doing things in an approved manner.

Success in any endeavor is closely

linked to the recognition of a need and the fulfillment of that need. We consider our situation, doing the entire line clearance operation with two contractors, not as two big contractors and two big jobs, but as two contracts and thousands of little jobs.



"Brace yourself, Joe. You did everything humanly possible to save that tree."

Pay for Work Actually Done

Our entire operation is based upon the idea that we should be billed and pay for what was done. Both of us—the contractor and the company—should be able to locate and verify who did what, where, why, and how much it cost.

Every invoice has all of this information on a cost-plus basis, plus three other items:

1. Total cost is proportioned as to the amount spent on each kind of work—trim or remove trees; spray or cut brush.

2. Each item of cost is shown in a specific way.

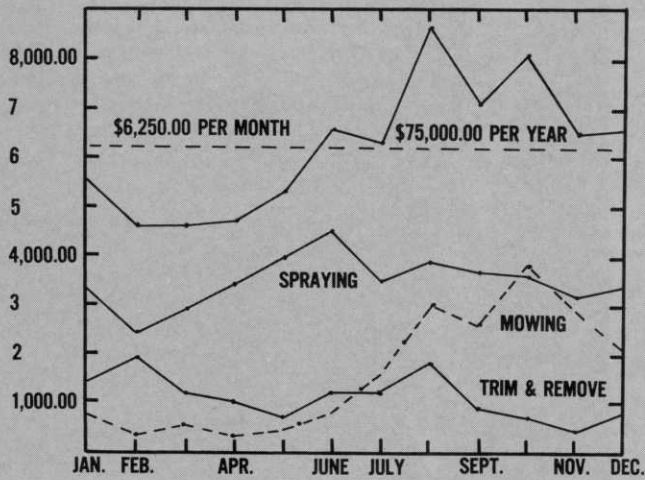
3. Each invoice can be calculated quickly to compare the cost-plus billing with a piece-rate system.

This matter of invoicing is probably our only area of difference from any other well-planned utility line-clearance program. Our invoicing system is just the application of industrial piece-rate technique. Perhaps the greatest significance is the continued usefulness of this system throughout 20 years of different line-clearance applications.

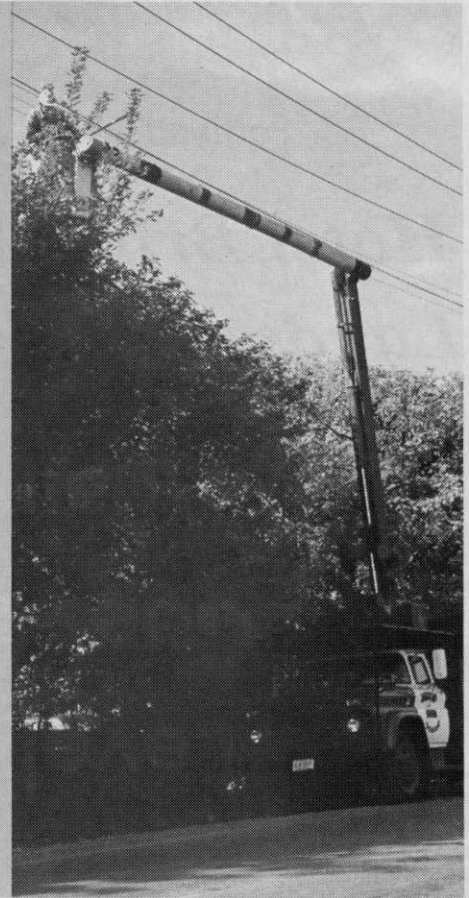
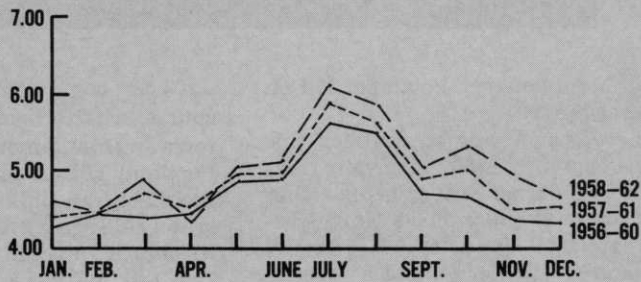
It's effective when estimating a job, when inspecting a job in progress, and when analyzing a completed job.

Both of our contractors consider

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AVERAGE DOLLAR COST PER TREE TRIM MONTHLY



the system to be fair to everyone. Both have been using it on the present job for more than 15 years. Karl Kuemmerling and Associates, Inc., has been on this same job for more than 25 years. Asplundh Tree Expert Company has been with us for 18 years.

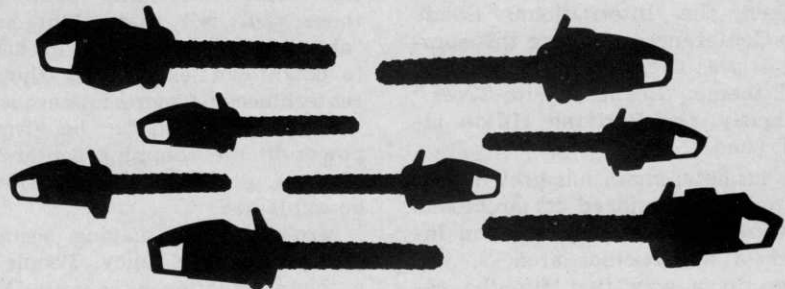
Criteria Enable Cost Comparisons

The usual criteria for tree costs are to determine the average cost per tree to trim or remove. We also watch the amount of work produced per dollar. By using this third yardstick, we can compare the per-hour costs to what a job would cost on a piece-rate system.

With these three financial yardsticks, we can make almost any kind of comparative cost:

1. Compare one crew with another;
2. Compare one crew against itself when moved to another area; or
3. Compare the same crew in different months of the year.

Good management is hard work. There are no machines or canned management programs that can manage your business. The biggest mistake you can make is to borrow without change the objectives, goals, policies, job descriptions, or control systems from another company. Every business has characteristics that are distinctly its own.



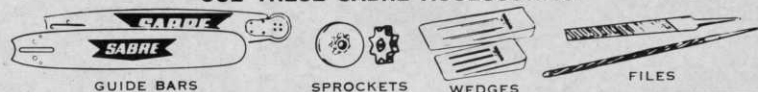
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Portland Hilton
*Hotel Brings
 Landscaping
 Downtown*



PORTLAND, Ore., has a park in the heart of the city that's in a rather unusual place.

The park has 70 trees, more than 100 shrubs, a dozen different ground covers, several thousand flower bulbs, a number of ferns and vines, a swimming pool, and the usual tables and chairs.

The park is on the second story of the Portland Hilton Hotel.

When the International Shade Tree Conference met there this summer, it was superfluous to post the ISTC theme, "Beautify With Trees." Obviously, the Portland Hilton already had.

As its hotel chain has grown, Hilton has commissioned its architects to "capture the atmosphere and interest of a particular area . . . to design in a way that fits the region's historical background," said

Ford Montgomery, Portland Hilton general manager.

Therefore, it was natural for this hotel, begun in 1960, to have a tree-oriented decor, considering that Portland is the hub of the Northwest U.S. nursery industry. A "Trees" restaurant and lounge and a "Woodchoppers' Bar" carry the theme inside.

"There was a rch concern when this hotel was being planned — there still is," said Montgomery, "about what was going to happen to downtown, as outlying shopping centers became more numerous."

There appeared to be drawing power in the shopping centers' use of trees, grass, shrubs and flowers, he explained.

"Lots of landscaping seems to capture people's fancy. People feel a close relationship with living things."

The competitive reaction, of course, was to bring the idea downtown. Montgomery believes the Portland Hilton pioneered this new architectural philosophy. By deliberately designing the building to incorporate maximum landscaping, "we felt we were contributing to a solution rather than to the problem."

"We didn't want to fill the block with a huge hunk of cement."

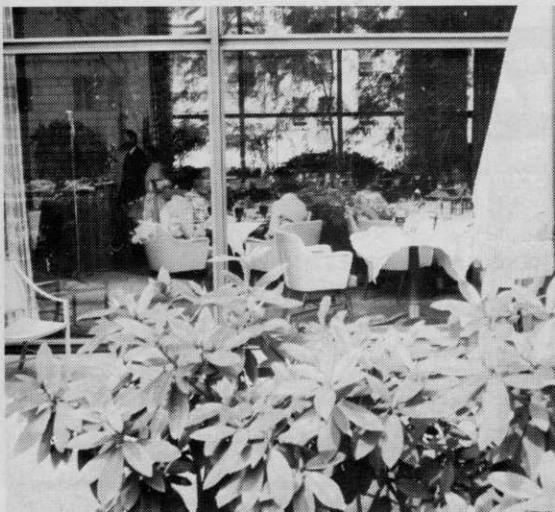
Other new commercial buildings have followed Hilton's lead, Montgomery said.

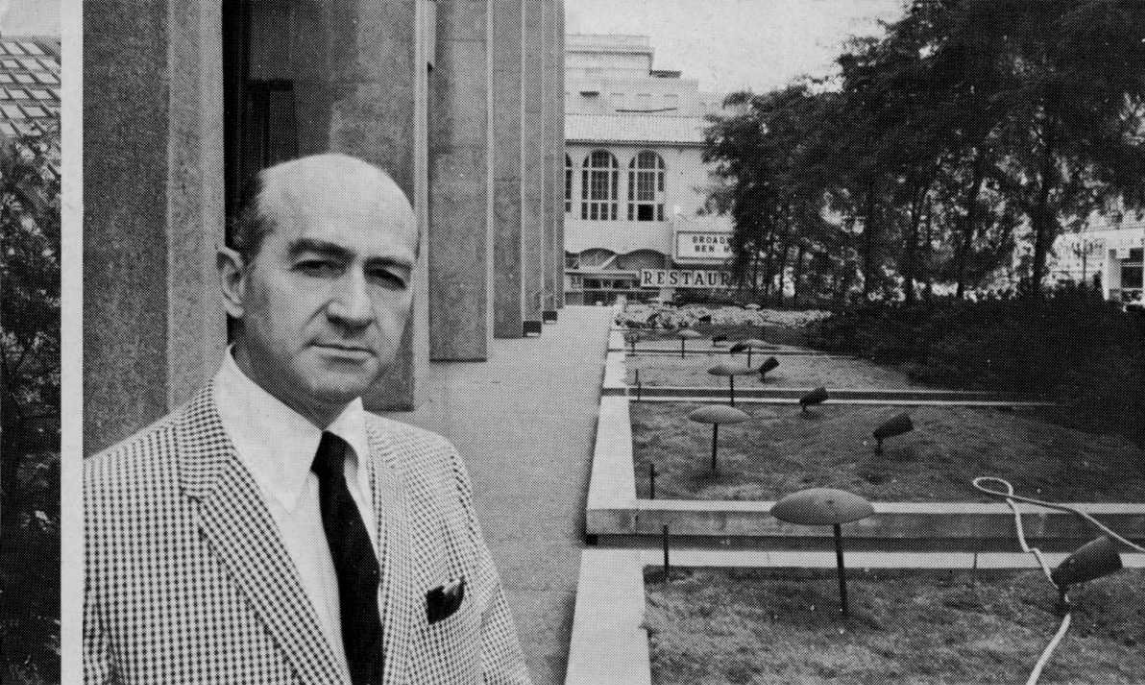
Landscaping conceived by architect William G. Teufel of Seattle had utilitarian as well as esthetic value.

Plantings screened out other buildings on adjoining blocks, enhancing the view outward and restricting the view inward. More privacy was achieved for ballroom

Diners have a garden view that undergoes colorful changes almost year around. Honeylocusts and a variety of other trees help screen out the sun.

Frank Lockyear, landscape architect, designed the garden which is complete with swimming pool.





Trees break up and soften the fortress-like tower of the Hilton Hotel in Portland, Ore. Ford Montgomery, general manager, believes landscaping that business can hardly afford to be without.

guests who could wander onto the garden park and for others who wished to enjoy the pool. The view from an exclusive dining room is of trees, shrubs, and bright flowers rather than brick, glass, cement and automobiles.

Trees and shrubs are used as windbreaks, sun screens, and noise absorbers. About a dozen honeylocusts planted for the latter two purposes are now about 30 feet high.

"Use of evergreen planting materials, shrubs, groundcovers, and trees, provide a contrast to deciduous material," Teufel explained in the landscaping plan. "Deciduous material offers an ever-changing scene. By interrelating this varied plant material, there will prevail an atmosphere of constant change and interest. Most plant material is of

the blooming variety to contrast with the prevailing green."

Frank H. Lockyear and Sons, landscape contractors, installed and maintain the second-story park. Lockyear used a mixture of manure, peat moss, sand and virgin soil. Depths ranged from nine inches for ground covers and from 28 inches to four feet for tree wells.

"Floodlighting at night gave us a moth problem, but we were able to handle it by spraying," Lockyear said.

Most of the plantings are native to the area, but Lockyear pointed out a few surprises, such as two southern magnolias he had positioned in a sheltered place.

Lockyear has discovered a few surprises himself. "Nature has added species of her own," he said. "I've found an American holly, a wild pear, and a European birch. I didn't

plant them. They just came up wild."

Montgomery's prize tree is one he purchased and added himself. He spotted a Japanese laceleaf maple on an estate that was being subdivided for housing. The knarled but delicate beauty is reportedly more than 70 years old. Montgomery had it potted and placed at the end of the reflecting pool in front of the first-floor entrance.

"That's the most photographed tree in the state," he said. "I've been offered \$1,200 for it, but it's just not for sale."

The Portland Hilton sacrificed income-producing rooms to make space for the landscaping that ultimately cost \$50,000 to install. But, observed Montgomery, "we cannot afford not to have it now." The atmosphere that landscaping creates, he added, is where people will go.

contractor, installed and maintains the hotel's mini-park, swimming pool.

Guests in the Trees Restaurant can enjoy a 70-year-old laceleaf maple that graces a pool at the front entrance.



SINCE Alligatorweed, *Alternanthera Philoxeroides*, was first found in Tulare County in December, 1965, many agencies and persons have contributed considerable knowledge and time to its control. This native of South America, which has given weed control specialists in the United States headaches for nearly 80 years, is now under intensive eradication in Tulare County.

Potential losses from Alligatorweed were disclosed locally from L. W. Weldon's paper (1960) on investigations of this pest in southern states. Extensive correspondence also was collected and researched by Murray Pryor (California Department of Agriculture), and many other interested agencies who were familiar with this extremely hard to control member of the Amaranth family.

With the two newly completed large flood control and recreation lakes only a few miles from both infestations (Porterville and Visalia), game and pan fish could be endangered. Infestations could reduce oxygen supplies enough to kill many of these and raise predatory fish populations.

Also, decaying mats of Alligatorweed produce hydrogen sulfide, which is highly toxic to fish and other organisms. Recreation in other ways could be hampered. The diversity of agriculture in the San Joaquin Valley, which is dependent upon receiving water through various channels, could be impaired with the great restrictions to water flow caused by uncontrolled Alligatorweed.

One grower on the end of an infested ditch says his delivery of water had been reduced by 80% since the weed invaded this channel. This is no longer a problem with the control now obtained on the same ditch. Mosquitoes thrive in Alligatorweed infested waterways and their control is difficult.

The capabilities of plant growth are staggering. One measured plant produced 56 feet of lateral foliage growth in one season. Nearly four tons of root growth per acre can accumulate in the top four inches of soil. The fleshy roots can penetrate three or more feet into the soil.

The very botanical nature of this perennial pest can cause apprehensions. Its hollow, crisp stems are very buoyant, break off readily and float downstream to create new infestations. Nodes occur every two to eight inches and quickly produce roots or foliar growth. The thickened deeper roots can propagate new plants from very small portions.

Now You See It . . .

Alligator Weed Vanishing Act Tulare County, Calif.



Porterville, Calif., ditch before and after treatment . . .



Visalia ditch before and after . . .