

"I have a good buddy at another tractor dealership but I still bought a John Deere. I hope he forgives me."

Clifton Clause, Clause & Ortego Builders, Eunice, Louisiana

When Clifton Clause and Burt Ortego started out in the construction business, the first thing they needed was a tractor.

They looked over several different brands. Compared them all for size, weight, horsepower, features and, of course, price.

And decided to go with a John Deere 950 Tractor.

"We could have gotten another tractor through my friend for less money," said Clause. "But for the kind of work we do the John Deere was the better machine. I hope he understands."

Not too big, not too small.

The fact is, for most landscaping and construction jobs, John Deere 'little-big' tractors are hard to beat.

At 22-, 27- and 33-PTO-hp* they are solid, dependable tractors at an affordable price.

They have the power you need for mowing, grading, loading, digging, backfilling and just about any other job you do.

Yet they're still small enough so they're not too expensive to buy or operate.

Big tractor features.

'Little-big' tractors have features you usually find on much larger tractors.

Their powerful 3-cylinder diesel engines are liquid cooled and fuel efficient.

Transmission has 8 forward speeds ranging from a "creeper" speed of below 1 mph to a top speed of around 12 mph.

To accommodate the wide range of over 20 attachments available, they come with Category 1 3-point hitch, 540-RPM rear power takeoff and an adjustable drawbar.

And you can choose from either bar or turf-type tires in several different sizes.

Built to take it.

Of course, like all John Deere tractors, 'little-big' tractors

are built to take a lot of hard use.

"We've had seven different crewmen operating our 950," says Clause, "which is usually hard on a machine. But we haven't had a bit of trouble!"

Ask your John Deere dealer for a demonstration. See for yourself how much more solidly they're built. How much smoother they run.

We think you'll see why Clause & Ortego Builders decided on a John Deere.



Nothing runs like a Deere®

For more information, write
John Deere, Dept. 63, Moline,
Illinois 61265.

**Maximum PTO horsepower
at 2600 engine rpm for the 850 and
2400 engine rpm for the 950 and
1050 by official test.*



Circle 110 on free information card

The little-big tractors from John Deere

LANDSCAPE

CONTRACTOR NEWS

LAF terminates management by consultants

The Executive Board of the Landscape Architecture Foundation decided in December to terminate the foundation's management contract with Executive Consultants of McLean, VA. Executive Consultants at one time managed the Associated Landscape Contractors of America, the American Society of Landscape Architects, and the Landscape Architect Foundation. LAF is the last to break away from the management consultant group in an effort to increase productivity and service.

Nursery promotion expected to boost sales by five percent

Nursery related industries can expect to experience a five percent increase in sales in areas where advertising by the Nursery Marketing Council runs. NMC made this prediction based upon consumer research tests using radio advertising to promote beauty and value enhancement of living plants.

A scatter plan will be used to place advertising until NMC can generate the \$2.75 million estimated for a national program. NMC has a goal to advertise nationally, seven days per week a solid three months in the spring.

Funds for the advertising come from nursery suppliers who contribute 1/4 percent of invoice totals. Interested persons should contact NMC, 230 Southern Bldg., Washington, D.C. 20005.

Inc., of Woodbridge, VA and Schlick Landscaping Inc, Huntington, NY.

Commercial - Century Landscape Contractors, Agoura, CA with two project awards.

Design-build - Landscape Associates Inc., Little Rock, AR and Theodore Brickman Co., Long Grove, IL

Maintenance - Ladybug Industries Inc., Jacksonville, FL, Ray's Landscape and Nursery Inc., Walled Lake, MI, and Clearwater Landscaping Co., Sun Valley, ID

Interiorscape Installation - North Haven Gardens Inc., Dallas, TX

Interiorscape Maintenance - Cohl-mia's, Tulsa, OK

Some of the winners will be featured in Weeds Trees & Turf later in the year in a roundup of the best landscape designs for 1980.

New officers were installed during the meeting. They include President Wallace SaBell of Denver, President-Elect Allen Keesen of Denver, Vice-President Ritchie Skelton of Vienna, OH, Vice-President Ray Gustin III of Gaithersburg, MD, Treasurer David Pinkus of Dallas, and Secretary Landon Reeve of Woodbine, MD.

ALCA also presented safety awards to 12 landscape contracting firms at the show, during a special breakfast meeting. The awards were made according to the number and time lost as reported for the period September 1978 through August 1979. Three firms reported no accidents or time lost.

If San Diego wasn't nice enough, a group of ALCA members continued the meeting on a three-island tour of Hawaii.

SALES

Echo ups sales for seventh year in a row

Echo, Inc. of Northbrook, IL, expects to report increases of 45 percent for the fiscal year just ended, an increase that represents a seventh consecutive record sales year for the company.

Echo markets a variety of two-cycle engines but has become well-known for its outdoor power equipment, including chain saws, power

blowers, hedge trimmers, and weed and grass trimmers. Its chain saw line was up in volume more than 30 percent last year.

HORTICULTURE

Lower temperatures save greenhouse heat

Researchers at the Connecticut Agricultural Experiment Station in New Haven have shown that plants can tolerate lowered temperatures in a greenhouse for part of the night, thereby saving fuel.

They indicate that fuel consumption in a greenhouse can be reduced by about 20 percent from January to April. The savings in dollars for growers can be significant because fuel accounts for half the cost of growing plants in greenhouses in the Northeast.

The fuel savings occur if the temperature in the greenhouse is maintained at 60 degrees F for the first part of the night, which is the standard practice, and then allowed to drop to 45 degrees for eight hours.

GRANTS

HRI expands its research grant program

The Horticultural Research Institute has announced the funding of five \$1,000 research grants in addition to 15 Richard P. White \$500 research grants for the coming year 1980. The grants will be awarded to help researchers conduct important projects of direct interest to the nursery and landscape industries.

Any organization conducting research which may benefit the nursery community—state and federal research laboratories, land grant universities, forest research stations, business firms, botanical gardens, and arboreta—is invited to make application for one of the grants.

An advisory committee of research scientists reviews applicants and selects them on the basis of information from a simple questionnaire.

Grants are available from the HRI, 230 Southern Building, Washington, DC 20005, and must be returned by May 1, 1980. The grants will be awarded in November.



ARBOTECT® 20-S

The strongest Dutch elm disease protection you can give a tree.

ARBOTECT 20-S fungicide helps make it possible to save many elm trees that otherwise would be lost.

Injected into the trunk of the tree, ARBOTECT builds a barrier against Dutch elm disease inside the tree itself. It helps prevent the disease in healthy elms, and can often save infected trees if they are treated early enough.

Used along with sanitation, insect control, and root graft elimination, ARBOTECT can significantly improve the effectiveness of a Dutch elm disease control program.

ARBOTECT differs from other elm fungicides in several important ways:

- It is registered at rates high enough to be effective.
- It is concentrated, requiring much less water for injection, so trees can be treated much faster.
- Thiabendazole, the unique active ingredient in ARBOTECT, is highly effective against

Ceratocystis ulmi, the fungus that causes Dutch elm disease.

- Even though it is more effective and convenient, ARBOTECT costs about the same to use as other elm fungicides.

This year, put ARBOTECT to work in your disease control program. It's the strongest protection you can give an elm against Dutch elm disease.



Arbotect

Strong protection for elms.



Agricultural Products
Merck & Co., Inc. P.O. Box 2000
Rahway, New Jersey 07065
ARBOTECT (thiabendazole) is
a registered trademark
of Merck & Co., Inc.

Circle 157
on free information card

GOVERNMENT

UPDATE

Revisions for Davis-Bacon

Major changes have been proposed in regulations issued under the Service Contract and Davis-Bacon Acts, in order to clarify and strengthen both laws, says Secretary of Labor Ray Marshall.

The Service Contract Act generally applies to any contract with the Federal government which is principally for the furnishing of services. Under the act, contractors and subcontractors are required to pay their employees, working on contracts in excess of \$2,500, monetary wages and fringe benefits determined by the Secretary of Labor in a locality and also observe safe, sanitary working conditions.

The proposed changes would revise, update, and clarify the Regulation 29 CFR Part 4 so that contracting agencies, contractors, and employees can be made fully aware of their responsibilities and rights.

The Davis-Bacon and related acts require the payment of prevailing wages and fringe benefits to employees of contractors and subcontractors performing on federally financed or assisted construction projects.

Proposed changes in 29 CFR Part 5 contain substantial revisions to the labor standards clauses which contracting agencies are required to include in their construction contracts. The major changes would affect procedures for:

- adding classifications and rates not listed in the wage determinations;
- the resolution of labor standards disputes;
- the withholding of contract funds for wage underpayments;
- and
- the debarment of contractors and subcontractors.

Certain changes have also been proposed to reduce the volume of enforcement reports exchanged between the contracting agencies and the department.

Act would provide water incentives

Congressman Norm Shumway, 14th District, California, has introduced the Irrigation Water Conservation Act of 1979 (H.R. 5965) which would provide incentives for conversion to efficient, water-conserving farm irrigation systems.

To provide the incentive for such conversions, Shumway's bill would permit an additional 10 percent investment tax credit for the use of such water conserving irrigation systems as drip irrigation, sprinkler systems, canal or ditch linings, pipeline equipment, or recovery systems. "Growers who use such equipment would also be able to depreciate that property over three years, thus receiving double encouragement to make the costly change," Shumway stated.

Pointing out that his legislation will benefit more than agriculture, Shumway said, "More water would be available for municipal use, groundwater recharge, and the enhancement of fisheries. Energy savings can be expected due to reduced irrigation pumping demands."

Interior approves reclamation plan

Assistant Secretary of the Interior Joan M. Davenport has approved a mining and land reclamation plan for CF&I Steel Corp.'s proposed underground coal operation on two Federal leases near Bokoshe, OK.

The mine plan was accepted with the stipulations that CF&I continuously evaluate the feasibility of recovering all or parts of the upper Harshorne coal seam and that the company protect the habitat of a chestnut-type tree that is being proposed for protection under the Endangered Species Act.

Under the mine plan, CF&I would use existing surface facilities to process the coal and would assume all land reclamation responsibilities when Garland Coal Mining Co. completes its surface operations in 1982, including a reclamation bond amounting to about \$18,000 per acre.

PUBLICATION

Text on aquatic toxicology released

Aquatic Toxicology (STP 667), a compilation of 25 papers presented during a symposium program of the American Society for Testing and Materials, has been released by ASTM of Philadelphia, PA.

The publication covers the assessment of effects of pesticides, contaminants, and other chemicals or factors in the aquatic environment.

MEETING

Pesticide association discusses safe uses

"Chemicals will be an essential part of life in the future," said Chester L. Foy, head of Virginia Tech's department of plant pathology and physiology. Foy spoke at the Virginia Pesticide Association annual meeting which was held along with the Mid-Atlantic Agricultural Chemical and Equipment Trade Show on Jan. 23-24 at the Richmond arena.

"We can't go back to life as it was before pesticides," Foy said. "The world and science will not allow it."

Foy noted that contrary to public opinion, life expectancy has not decreased from the use of herbicides. He encouraged his audience to take the responsibility to get technology out of test tubes and into use.

Cecil Howes, Washington liaison officer for Tech's College of Agriculture and Life Sciences, gave the keynote address at the group's annual banquet. More than 300 listened to the talks and viewed booths of chemical and equipment companies.

Outgoing president James Gallman of the Stauffer Chemical Co. challenged the organization to double the number of exhibits by 1983. The newly elected president is Dennis Ketcham, sales representative of Du Pont Co. Other new officers are Joseph Will, vice president, Southern States Cooperative; Phyllis McCabe, honorary secretary, Chevron Chemical Co.; and Nora Hall Pankey, secretary and treasurer, Southern States Cooperative.

Continues on page 85

New...from Standard Golf Co.

Redwood for Instant Golf Course Beauty

Standard Golf Co. has added new dimension to golf course beauty with hand crafted redwood in tee data signs, benches and course signs. What beauty! What distinction and design harmony for your golf course! These beautifully sculptured custom redwood console units, developed by Cimter, Inc., are offered exclusively by Standard. Each tee can be decorated with precise hole layout information. Standard offers the signs with or without hole layout, in two styles and two sizes. Contact your Standard Golf Co. representative today...or write Standard Golf Co., Cedar Falls, Iowa for Catalog Number 300-80 and complete information on order time and production details. You and your members will be glad you made the move. Call 319-266-2638.

Circle 148 on free information card



STANDARD
GOLF ProLine



DURSBAN

INSECTICIDE



WHY 9 OUT OF 10 LEADING LAWN CARE FIRMS USE DURSBAN

When the top 9 of 10 lawn care firms in America all choose DURSBAN* brand insecticides as their predominate insecticides for surface insect control...there has to be a good reason. Or two.

Well there are two.

1. DURSBAN insecticides last longest of all leading insecticides.
2. DURSBAN insecticides cost less to use than other leading insecticides.

In fact one application of DURSBAN 4E, $\frac{3}{4}$ oz. per 1,000 sq. ft., costs only about 45¢. Yet with this small amount, you get six to eight weeks of unsurpassed residual control of dozens of turf pests. Compare this to two to four weeks with any of the other leading insecticides.

And although DURSBAN insecticides are highly effective against insects, they are kind to turf, to people and to pets.

You also use a lower dosage rate with DURSBAN than with other leading insecticides. That means you handle fewer drums to do the job.

So ask your supplier for the turf insecticide that saves you time, trips, storage space and money. Ask for DURSBAN 2E insecticide or double-strength DURSBAN 4E insecticide. Just be sure to read and follow all label directions and precautions. Agricultural Products Department, Midland, Michigan 48640.



DOW

DOW CHEMICAL U.S.A.
*Trademark of The Dow Chemical Company

Circle 125 on free information card

THE CHALLENGES AND LIMITATIONS OF TREE PEST MANAGEMENT TODAY

By Henry Gilbertson, Director of Technical Services, Davey Tree Expert Co., Kent, OH.

Tree pest management continues to face challenges on both a regional and national basis. For an overview of these problems, The Davey Tree Expert Co. polled its district managers across the United States and in five districts in Canada. The findings were presented in a speech at the 12th Annual Northern Forest Insect Work Conference last year by Davey's Henry Gilbertson. This article is taken from that speech.

Henry Gilbertson is director of technical services for Davey Tree Expert Co., Kent, OH. He received his BS in Forest Management at the University of Idaho, his MS in Plant Pathology from the University of Maryland, and a second MS from the University of Massachusetts. He is currently a member of the Research Committee of the International Society of Arboriculture and served in the past as president of the Ohio Chapter of ISA. He is also a member of the American Phytopathological Society.



Bronze birch borer larva and its damage present such a problem that many hesitate to recommend planting of white birch. (Photo courtesy OARDC).

There are basic difficulties in controlling tree pests. These are in addition to those problems involving particular trees or pests.

It is impossible to be on every property at the right time or ideal time for spraying because of the great number of properties or trees that need protection. In some cases, we may not even know the ideal time, especially in those instances where the pest feeds over a relatively long period and the home owner can afford only one application.

We often receive calls after the damage is quite extensive or when the larvae are almost mature and tougher to kill. Some clients apparently expect the leaf injury to heal and become whole after sprays are applied!

Weather — rain, wind, high temperature or freezing temperature — can always cause a problem. The number of ideal spray days in a season can probably be counted on one hand.

Tall trees are a problem. Even with ideal conditions, it is difficult to thoroughly cover trees that are 85 to 90 ft. in height.

The fact that most of our insecticides have short residual and are used on insects that have extended egg-hatch periods or that may continue to reinfest a tree over a long period of time, makes control difficult. These factors must be tolerated and sometimes interfere with getting the spray on target with proper coverage and without plant injury.

Two other problems that need further publicity are the effect of temperature on insect control (for example, malathion is reported to be much less effective below 60 degrees F than at higher temperatures) and the effect of water pH used with the pesticide, which can reduce its chemical activity. Certain parts of the country have high pH water. What effect is this having on control?

The insects discussed represent a few of those prevalent problems to urban trees and, in some cases, problems for arborists to control.

Borers

Borers are one group of insects that create problems for the arborist, municipal forester and home owner. For this group, bronze birch borer is a major pest. It can kill large or small trees and is so destructive that we hesitate to recommend planting of white birch. Control success has varied, probably because larvae are protected most of their lives by bark, and adults may lay eggs over a six- to eight-week period. In looking over state recommendations, I found that one says to use two pints 20 percent lindane and another says to use two quarts (or twice as much). This could also be a factor in control. How much lindane and how many applications are required for control?

Dogwood borer is also a problem attacking the roughened bark or stresses areas. Several of our tree care territories have mentioned having the ash or lilac borer as a problem pest.

Continues on page 20

Introducing the Front Line.TM

The first mower built tough enough to be a Cushman.

There's a good reason why Cushman has been around for such a long time: We build equipment that lasts a long time.

And that's never been more obvious than with our new Front Line rotary mower.

Built for keeps.

The Front Line's 72" mower deck is made of 12-gauge carbon steel, reinforced and arc welded. It has a multi-disc PTO clutch, direct drive to the deck gear box with a sealed and lubricated shaft drive. The hydrostatic transmission is driven by two continuously engaged "A" section belts with self-adjusting tension.

There's no need to worry about overloading the Front Line's engine. The combination of our high torque engine and specially designed mower deck allows you to mow tall weeds and fine grass.

Superior performance.

The Front Line's cut in fine grass is so smooth, you won't believe it was made with three separate blades. That's because the blades overlap 1/2" to reach every inch of grass in the full 72" swath. Also, the cutting height is adjustable to eight positions, from 1" to 4 1/2" in half-inch increments.

Operating the Front Line couldn't be easier. With individual front wheel brakes, and wheel-type steering controlling a single rear wheel, you get tight maneuverability and better control on varying terrain.

The Front Line's mower deck makes your job easier, too.

It extends more than a foot to

one side, so you can trim right up to fences or trees. And it lifts hydraulically for transport over curbs. What's more, a large capacity fuel tank lets you work up to 6 hours between refills.

100% Cushman.

Most rotary mowers use engines built by outside suppliers. Not the Front Line. Its 18-hp, air-cooled engine is all-Cushman. So is the differential. And the PTO drive. Which means all parts and service are provided by your Cushman dealer.

Send us this coupon today, and we'll tell you more about the new Front Line: The only mower built Cushman-tough.

80-CUT-5

YES, I want more information on the new Front LineTM rotary mower. Prove to me that it really is tough enough to be a Cushman.

Name _____

Title _____

Address _____

City _____ State _____

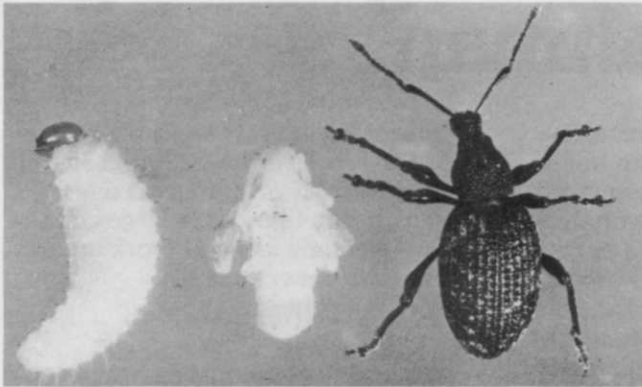
Zip _____ Telephone _____

CUSHMAN[®]

2075 Cushman, P.O. Box 82409, Lincoln, NE 68501



The Front Line. Tough enough to be a Cushman.



Black vine weevil larva, pupa, and adult (left to right).
Photo courtesy OARDC.

Black vine weevil

Black vine weevil, although not a shade tree problem, is definitely an urban insect problem and is serious on taxus and rhododendron. The adult pest chews on the foliage, and damage is not readily noticed until the plant is dying because the larvae have been feeding on the root system.

With chlordane no longer available, we suggest the use of Orthene and understand that New York State has a 24-C or special local need registration covering this. Chevron Chemical Co. has told us that they have a recently approved label for Orthene which covers adult root weevils and they expect it to be available in time for applications this year.

Lindane is also labelled for this pest, although I have no information on its efficacy.

Scales

Scales are small but mighty and range from those that can kill trees or branches to those that are more noticeable because of the honeydew they secrete.

Cottony maple scale - The overwintering stage of the cottony maple scale could be overlooked by the homeowner. However, once the popcorn-like egg masses are produced and the tree starts to drip, our phone begins to ring. A single egg mass may contain



Magnolia scale resist control by forming a dense layer. (Photo courtesy of Davey Tree Expert Co.)

3,000 eggs, which easily explains any scale population explosion. Even an arborist may be mistaken about the success of his or her sprays unless he checks along the veins where the scale crawlers plug in to feed.

Oyster shell scale - This scale looks like oyster shell, hence its name. These scales overwinter in the egg stage and are more difficult to control with dormant oil sprays than if they were partly or full-grown scales. The addition of Ethion to the oil has improved control considerably. We follow up with a spray during the crawler phase.

Euonymus scale - Euonymus scale is hard to control. A close view will show yellowing caused by an infestation of the scale. Thick, bushy plants are difficult to cover thoroughly with spray and require special attention.

Galls

Although there are more than 800 different insect galls which may affect oaks, the one which is the real problem is the horned oak gall, caused by cynipid wasp. This has become a special problem in the Buffalo, NY, area, where it has killed hundreds of pin oaks; but it is also found in other areas.

An infested tree may look as if it were loaded with shishkabobs. A close look reveals the reason it is call horned oak gall.



Maple bladder gall commonly found on silver maple. (Photo courtesy Davey Tree Expert Co.).

Adults formed in the two-year-old gall chew their way out of the horns and lay eggs in the developing leaves. Wasps which develop in the leaf galls emerge about July 1 and pepper the new twig growth with eggs. New galls are produced, and after two years the cycle is repeated.

When DDT was available, we felt we were successful in our control efforts; but since then, control has not been satisfactory.

Aphids

Spruce gall aphids - Spruce gall aphids are not a serious problem where carbaryl is used, provided,

Continues on page 22