

The Environmental Protection Agency (EPA) granted nearly one billion dollars during fiscal 1972. Most programs covered water, air and solid waste management.

Don't be surprised if an OSHA inspector knocks on your door in 1973. The President's budget has just added \$27.9 million to the \$36.5 million of last year for the agency that operates OSHA. <u>That \$64.4 million, total</u>. This increase will permit the Labor Department to make 110,000 inspections during the next fiscal year, officials say.

Del Kennedy has been named vice president of the newly formed Mauget Tree Injection Process, Inc. His duties will include appointing area distributors and coordinating the training sessions for professional arborists in the approved uses of Mauget Tree Injectors. The announcement was made by Dale Dodds, president and general manager for the California based firm.

Looking for <u>tax credit</u>? The <u>Revenue Act of 1971</u> allows employers to claim a "Job Development Tax Credit" amount to 20 percent of the cash wages paid an eligible welfare employee during his first 12 months on a company payroll. Eligiblity depends on employers hiring workers from the Work Incentive Program, operated through state employment security and welfare agencies. For a brochure and additional information, contact the U.S. Department of Labor.

Members of privately-owned businesses may obtain four reports released by the Manufacturers' Institute on founder/family owned business. Family owned business creates 40 percent of the Gross National Product. The reports describe specific companies as examples of solutions to personal-relationship problems, and show the outcome of these solutions. Observations and comments tie the examples to principles of business management in situations where management of the the family members is a vital ingredient to successful management of the firm. For copies of the reports, write Manufacturers' Institute, Box 228, Oxford, Mich. 48051.

American Garden Products, Inc. has announced intentions to file, in late December, a Registration Statement for an underwritten public offering of approximately 100,000 shares of Common Stock.

<u>Railroad-highway grade crossings</u>. A hazard at best. Now the Federal Highway Administration is doing something about it. John A. Volpe, Secretary of Transportation, has said that a greater share of Federal funds will be abailable to State highway departments for financing crossing improvements. **I**T'S no secret to managers of weed control services that heightened environmental demands from the public are complicating the job of keeping up with a barrage of new chemicals, equipment and techniques. Weed control services now have to provide effective control programs and at the same time use methods which satisfy the public.

Recently, nearly 125 representatives from the commercial weed control industry sharpened the focus on environmental training and effective vegetation management at Texas A&M University's Seventh Annual Industrial Weed Control Conference.

"The conference was directed toward nonagricultural interests in vegetation management, including the ecological aspects," according to Dr. Wayne McCully, general chairman for the conference. McCully is a professor of grassland management in the Texas A&M Range Science Department.

The conference, held Oct. 16-18, was jointly sponsored by the Texas Agricultural Extension Service and the Texas Transportation Institute as part of the continuing education program of Texas A&M.

"People are becoming afraid and consequently more concerned," said R. L. Robinson, Texas, Electric Service Co. and chairman of the conference steering committee. "These people need to be educated in the ecological aspects involved in industrial weed control."

Robinson added that while ex-

Vegetation Management

It Makes Dollars And Sense In Texas

By BILL SULLIVAN Texas A&M University College Station, Texas

tension has done an excellent job in orientating some of its programs to needs of industrial weed controllers, more work is needed in this area.

Dr. William Upholt of the Environmental Protection Agency (EPA) boosted the conference's emphasis on ecological impact of weed control by describing the recently passed Federal Environmental Pesticide Control Act of 1972.

He pointed out that one of the biggest advantages of the new law is that it allows regulatory agencies and users of chemicals "to legally talk" about insect and weed control materials. Under previous regulations these materials were called "ecological poisons" and many users, both commercial and private, were confused about when, where and how to apply the chemicals.

The new act requires EPA to classify all pesticides as to use. Up-



Caldwell Equipment Co.'s version of a flail mower also catches the attention of industrial weed controllers as it is demonstrated and explained. Note the hydraulically controlled wings which can be lifted independently of each other.

holt described this as the most significant portion of the new act. Certain chemicals will be used for specific purposes, and some materials will be restricted to trained applicators.

Upholt, senior science advisor to the assistant administrator for EPA's Categorical Programs, listed other main provisions of the act:

—It brings all pesticides under EPA control regardless of whether or not they are an item of interstate commerce.

—It makes use of a pesticide without regard to label instructions a federal offense.

—It makes possible inspections of plants manufacturing pesticides. Data from inspections will remain confidential.

Under the act, states are authorized to train and certify commercial applicators within standards developed by the federal government.

"We aren't intending to handle this certification federally," the EPA official emphasized. "It would be highly unrealistic for us to set uniform standards because problems vary so much from state to state."

All provisions of the act become effective four years after its enactment.

Talk about the environment was only one phase of the conference. The industrial weed controllers heard authorities speak on vegetation management for rights-of-ways, control techniques for roadsides and ditches, and methods of eliminating aquatic vegetation problems.

"A soil sterilant can be the backbone of an industrial weed control program," contended Dr. A. L. Wiese of the Texas Agricultural Experiment Station. He divided bareground chemicals into two groups those with little soil residual and those with long soil residuals.

"The shorter residuals remain persistent from one to three weeks and are toxic to all living matter including seeds, plants and even insects," he added.

"The longer residual chemicals used for broadleaf control are sometimes subject to leaching up to depths of six feet, but they have to move downward far enough to be absorbed by the plant roots. Examples of these chemicals are 236 TBA, Picloram and Tordon.

"Long residual grass killers such as TCA leach readily and remain persistent for three to six months."

Wiese reviewed research done at Texas A&M in which an application of 200 pounds of TCA per acre along roadsides provided effective control of annuals and Johnsongrass. It also gave excellent control of broadleaf perennials.

Wiese suggested that applicators consider pretreatment with bareground chemicals on an area before surfaces such as blacktop are put down.

He reminded applicators that one of the biggest dangers in using soil active herbicides is lack of control and that it is especially easy to get herbicide drift on steep slopes.

"Along fences, roads and around industrial sites combinations of a soil sterilant and a contact herbicide should be considered for quick knockdown or rank growth and residual action to prevent regrowth," suggested Dr. E. F. Eastin of the Soil and Crop Sciences Department at Texas A&M.

He recommended that applicators using non-selective contact herbicides on perennials make their treatments during dormant stages of plant growth.

Eastin pointed out that a new foliar applied, systemic chemical called Roundup (Monsanto) was showing good results in control of rhizome Johnsongrass. However, the chemical is still in developmental stages.

In another part of the conference authorities on aquatic weed control told participants to be sure of the ultimate use of the water before devising a control program.

"There is no one-shot program in aquatic weed control," commented Dr. A. J. Foret of the University of Southwestern Louisiana. "A program has to be thoroughly planned and repeated. The biggest asset in aquatic weed control is our ability to manipulate the level of the water itself."

He mentioned cases in Louisiana where manipulation of water levels aided in control of water lillies, duckweed and even some woody species such as willow.

Foret presented some general cost



Several industry representatives inspect the cutting job done by this Mott flail mower. Complete hydraulic control makes the mower and tractor easy to operate. This unit has a wing on each side and one in the rear.

figures on different methods of aquatic vegetation control. Vegetation control costs with mechanical equipment can run as high as \$300-\$900 per acre. The Army Corps of Engineers has a one man saw-boat that shreds vegetation at a cost of \$20-\$30 per acre. Chemical control costs about \$20 per acre for duckweed and about \$30-\$40 per acre for water hyacinth.

Two of the newer ideas being used

in aquatic weed control are spray application from V-shaped booms that reduce chances of snagging vegetation and application by heavy hoses that drag the bottom.

"Unfortunately we can't control the water level and hope to get rid of algae," said Jim Davis, a Texas extension fisheries specialist.

He also revealed that there has been little success in attempting to (continued on page 85)

Part of the 125 industrial weed controllers at the conference's field demonstration observe a movable 250 gallon fiberglass spray tank which has its own engine mounted on the frame. Either a fixed nozzle or a hand-held wand can be used with the tank.



Assoc. Landscape Contractor **Faults Highway Construction**

"Survival in the roadside landscape business has become a real chore. The guidelines under which we operate, in many cases, hinder more than help our survival," said Norman Gay, president of the Associated Landscape Contractors of America, who recently addressed the Ohio Short-Course on Roadside Development in Columbus Ohio.

According to the chief elected officer of the 400 member trade association, a major point of criticism is simply red tape.

"A waiting period of final payments in some places can be one year or longer. Many times this money is the landscape contractor's working capital. Without a friendly banker he can be in trouble and this is on contracts with protective payment and performance bonds," Gray asserted.

"There should be no release on final payments to a general contractor until he has proper payment releases for all material payments and final payments to all concerned."

Gray pointed out that the current conditions in landscape contracting are contributing to the 32% annual attrition rate in the landscape industry, the highest in the construction field.

"On sodding," according to the Mansfield, Massachusetts landscape contractor, "we are told how to do it, when to do it, the kind and quantities of seed and fertilizer to use. Many times we are directed to seed inert material without organic content. In many contracts. instructions on seeding are written without the benefit of a soil test." After such imposed restrictions, the landscape contractor is told he must guarantee grass growth.

Gray endorsed the American Sod Producers Association for their "excellent job in updating specifications for sodding operations" particularly as it relates to thickness of cuts; and suggested they be considered whenever possible.

He recommended the following payment schedule: 5% limitation on retainage; 10% retained until 50% of the job is complete, afterwhich no more than 5% is retained; 2% on jobs over \$250,000 once the entire job has been substantially complete. Owners should be obligated to put retentions in escrow with the interes accrued to the benefit of the contractor. When a project is complete, final payments should be made within 30 days.

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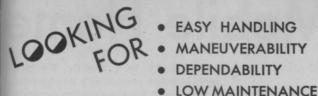
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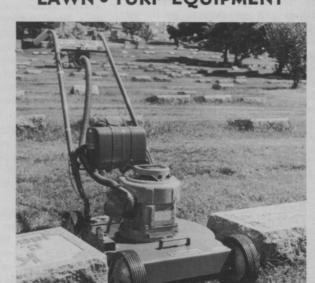


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BUNTON MODEL 52-10TCI WITH OPTIONAL 3252 RIDER Power steering levers for quick turning and selfpropelling. Rider attachment changed without tools from riding to walking.

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- Twin blades (not synchronized) suction lift type. Adjustable leaf-mulcher guard.

Sod For A Mobile Home

In 1971, there were approximately one million American families living in mobile homes. That figure has already increased immeasurably in 1972 and will continue to go up as more mobile home parks are established and coaches themselves continue to incorporate the spaciousness, convenience and luxury features found in the most affluent of homes.

Mobile home park is really a misnomer, for most people who purchase coaches today see them as permanent homes in a permanent locale. In fact, the "move" factor with mobile homes is less than with conventional housing.

One reason for this: the extensive facilities that are being offered by mobile home park developers. A prime example is Pacific Western Mobile Estates, Inc., a newly opened mobile home community in San Jose.

It is an extensive 72 acre complex, located off Highway 17 at Trimble and Oakland Roads in North San Jose. Really, it is two mobile home parks in one. There are a total of 618 lots, 370 in one are for adults and 248 in another area for families.

Facilities, centered in two clubhouses, include an indoor hydrotherapy pool, saunas, launderettes, hobby, exercise and billiard rooms, lounges, and large community rooms with adjoining kitchens for the use of all residents.

Outdoor recreation is enhanced by two swimming pools at each recreation center; shuffleboard, tennis, badminton and volleyball courts, and a 9-hole putting green.

A natural environment is of paramount importance in the planning of a Pacific Western Mobile Home Estates community. It is most obvious in the changes taking place at the San Jose park, as a once bare area is being turned into lush green expanses of lawn, creating a parklike setting throughout the mobile community.

The landscaping itself is being done by Town and Country Landscaping and Supply Company in Los Gatos and it can be called "instant" landscaping in every sense of the word.

Since the mobile home community is already open, Pacific Western specified that the landscaping be completed as soon as possible. To those who are witness to what is taking place, it is almost a miracle to see what "instant" landscaping is all about.

Much of the miracle is being created by Nunes Turfgrass. Town and Country estimates that 50,000 square feet of sod, or nearly two acres, all from Nunes Turfgrass Nurseries in Patterson, will ultimately be used in its landscaping program for Pacific Western, much of it in the area surrounding the man-made lake at the entrance to the mobile home community and the recreation/clubhouse areas that form the nucleus for both the adult and family section. The entry to a Pacific Western mobile home community has become a trademark for the rapidly-expanding company, a division of the Hallmark Group Companies, Inc. A landscaped avenue marked by an expanse of green lawn on both sides, leads toward the recreation center accented by a graceful fountain illuminated at night with multicolored lights.

During the past few weeks, residents at Pacific Western have seen the expanse of lawn actually become a reality in a matter of hours.

The sod, or instant grass, comes to Pacific Western from Nunes turf growing grounds in Patterson, headquarters for the largest turf-producing company in California.

Town and Country actually places the order for the sod that will be needed for each installation the day before actual delivery. The sod itself is cut the morning of the delivery day.

A Nunes Sod Harvester cuts the sod in precise strips 6 feet long and 18" wide. It lifts the sod from the ground, rolls each strip compactly for delivery to pallets that are then placed on the delivery trucks. Once it arrives in San Jose, the forklift truck unloads each pallet as it is needed by the workmen.

Installing sod is much like installing tiles. Each strip fits end to end, and like tile or carpeting, the sod can be cut to curve around concrete



Completed recreation center lawn increases the appeal of the mobile home complex instantly. It takes a crew of three men, working seven hours, to put down approximately 7500 square feet of sod a day.

Estate

patios or circle statuary.

In addition to the installation of Nunes Turfgrass throughout the park, Town and Country is incorporating over 1300 trees into the overall plan for Pacific Western, including the planting of several dozen mature olive and palm trees around the two clubhouses and recreation centers.

John Anderson of Town and Country no longer uses seed in his landscaping programs, especially like the one at Pacific Western," he says. A three-man crew, working seven hours, can turn bare dirt into a lush green lawn covering aproximately 7500 square feet in just one day. Sod gives a completed look to a new area, a factor of prime importance in an area that is seen by the public daily.

To seed the extensive areas at Pacific Western now being covered with sod would not only take much longer, it would require crews on constant duty to water, fertilize, weed until the lawn is established months later. Nunes Turfgrass is giving to Pacific Western in two weeks what it would take nine months to achieve with seed.

More importantly, it is giving a permanent and established look to a brand new community and also will give immediate use of greenbelt areas to residents. This points up the most dramatic use of turfgrass, and why more and more private individuals as well as commercial firms are turning to sod.



Workmen from Town and Country Landscaping and Supply Company of Los Gatos unroll strips of sod. The bare dirt yard in front of the recreation center at Pacific Western Mobile Estates complex is quickly transformed into lush green grass.



Strips of sod are rolled down end to end to create an "instant" lawn. In a few short hours a bare area can become a site of beauty.



This Nunes sod harvester can cut, lift, roll or slab and palletize more than 1000 square yards of sod per hour.

Big Tree Moving Operation Completed At Opryland U.S.A.

One of the South's biggest treemoving operations has been completed at the new 369-acre Oprvland U.S.A. entertainment complex. It opened May 27, 1972 and will be the home of radio station WSM's new Grand Ole Opry House in 1974.

The complex will house other musical and general entertainment attractions, such as puppet shows, five musical areas depicting various periods and styles of music, wild and domestic animals, and amusement rides. It is near the Cumberland River, four miles north of I-40 at the intersection of U.S. 265 and 65 on Briley Parkway, near Nashville, Tennessee.

One-fourth of the Opryland complex is woods and the trees were transplanted fast enough to keep up with contractors who are building roads, constructing lakes and laying underground utilities. With the help of the two "tree spades"-one truckmounted and one pulled by farm tractors-nearly all of the trees that were originally on the site have been saved.

An Allis-Chalmers Corp. One-Sixty tractor pulled the Model TS44 tree spade, made by the Vermeer Co. The Model TS66 can automatically dig and transplant a 40 ft. tree in minutes.

"This was the first time in the middle Tennessee area, and possibly in the Southeast, that such a large tree mover has been used," said Mike Downs, general manager of Opryland U.S.A. "We moved nearly 5000 trees."

Because construction began before many of the trees could be transplanted, Ben Moore, Opryland's landscape manager, developed a temporary tree nursery. At one time, the nursery contained more than 400 trees waiting to be transplanted, complete with existing birds' nests.

"We took every precaution to preserve our beautiful trees," Mr. Moore said.

When it is done, unlike other major theme parks, Opryland U.S.A. will present the authenticity and uniqueness of America, rather than fantasy. The central themed areas of the 110 acre entertainment park are composed of five "towns" which highlight America's bread and butter music — jazz and blues, country, folk, western and contemporary music - all set in the natural surroundings of 369 acres of Tennessee woods and hills.

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Goodall Heavy-duty self-propelleds — 24, 28, 32, 36 and 52 inch cuts.



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- Power steering with finger-tip turning levers Five forward ground speeds, independent of engine or blade speed. Mows across any grade you can walk across. Heavy-gauge steel frame, for low maintenance. Adjustable leaf-mulcher-guard.



They Tip'em To Test'em

Built-in safety features in modern equipment are taking on new meaning with passage of new safety laws. Stresses and strain of metals must be



accurately computed before machinery is placed on the market.

In this unusual series of photos, engineers at New Holland Division of Sperry Rand deliberately put this loader through a roll test. The loader's low center of gravity and general stability posed a problem initially in starting the roll. But manpower converted into horsepower started the sequence (above). Upper left photo starts the action. Top above, the loader bites the dust. Inertia keeps the brute on the roll. Next comes the bounce (bottom left). Loader at end of test, below is no worse for the wear.

Tip'em, Twist'em, Toss'em and Turn'em; todays loader will take the toughest beating.

