



Beautiful turf is no accident. Make it happen with Acti-dione® 4-season disease control

The old saying that beauty is more than skin-deep is nowhere more applicable than on a golf course. Beautiful turf will not retain its beauty unless it remains healthy. In addition to normal wear and tear from golf play and stress from variable weather conditions, fungi are an ever-present health threat to turf. There's little you can do about golf play and weather, but you can control fungal diseases. An effective, economical way to combat fungal growth all year long is to use Acti-dione® Thiram and Acti-dione TGF® in a four-season disease control program. With fungi out of the way, turf has a better chance to grow strong and healthy — to resist weed infestation, to bounce back from injury and to survive adverse weather conditions. See your TUCO distributor today for complete information and assistance in planning a four-season disease control program with Acti-dione turf fungicides.



C-2110



Use Proxol* 80SP to help prevent insect damage

*Trademark

TUCO

Division of The Upjohn Company, Kalamazoo, Michigan 49001

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For More Details on Following Page Circle 139 on Reply Card



Brown patch heads summer diseases

Brown patch is a prime summer threat because it thrives in warm weather. Acti-dione Thiram, applied weekly, controls not only brown patch, but also dollar spot, melting-out, fading-out, leaf spot, rust and powdery mildew.



IBDU is turned on by something you can turn off.

On a hot day, most slow release fertilizers aren't so slow. Their release rate depends on temperature and bacterial activity. As the thermometer climbs higher, they release faster and faster. Then you spend more and more time mowing to keep up with the extra growth.

IBDU is activated by water, not temperature. As long as there is moisture in the soil, it releases nice and slow. In hot weather or cold, rain or shine, IBDU gives your turf a steady supply of nitrogen.

Even when you need knee boots outside, IBDU will not overfeed your grass. IBDU's solubility is controlled so it releases nitrogen at a slow, steady rate no matter how wet the soil.

When it's hot and dry, just water turf normally. IBDU does a beautiful job of making your grass grow greener, slower, longer.

Please send me more information about IBDU

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Address _____

City _____ State _____ Zip _____

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Swift Chemical Company,
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Dept. WTT-5

Guest Editorial

How Do We Meet the Challenge?

By ROBERT FELIX, Executive Secretary
National Arborist Association

THE CURRENT economy is providing the tree care industry with the biggest challenge that we have ever faced. As disposable income decreases, maintenance budgets shrink and part time "buzzards" become full time competitors our market can and in some instances is dwindling.

The energy crisis has already forced a reduction in budgets for tree trimming by the Utilities in many parts of the country. OSHA and EPA are also doing their part in placing regulatory limitations on our activities. Financially pressed municipalities and institutions are not contracting for the volume of tree care that they have been. Can we adjust or will we be a service of the past?

For some the answer is not even receiving consideration, much less the problem. Others are ready to meet the challenge head on and they will succeed. The days of "I have more work than I can handle" and "I never have enough men" are gone. It is a buyers market and if we wish to remain the viable industry that we can be we have to use every bit of ingenuity that we can.

Management is the key, be it in sales, production, personnel, time, equipment, purchasing or financial matters. To survive in today's economy a tree man must be an astute businessman as well as a professional arborist! Your success will be a result of your willingness to be industrious as well as smart.

Sales are the initial step. The large jobs aren't coming as easily as they used to. The average job is smaller and the buyer is interested primarily in the must items. Therefore every potential job must be sold. You must get your price but you must also endeavor to interest that customer in every possible service that he must have. A weak tree with lots of dangerous dead wood must not only be pruned but fertilized. An insect infested area must be treated. A section of line that is allowed to become overgrown will not only result in "out-ages" but will cost substantially more to trim in several years.

Your customer list is an extremely important source of new business. Review it frequently. Visit accounts that you haven't serviced recently. These people are accustomed to spending money on their trees. Although they might not spend as much as they did last time, they will certainly consider doing some of the "must" things now.

You cannot sit back and wait for orders to come to you. Go get the business. There is as much in many areas as there ever was. It just comes in smaller pieces. Regardless of the state of affairs do not sacrifice price or quality to sell a job. A job that has no profit is worse than no job at all and a poor quality job will cost you valuable professional image points.

Professionalism is another factor in this battle. Whether you are an owner, a manager, a supervisor or a climber, the man who is the most professional as a tree man and a businessman will prevail. Good tree men who are inadequate businessmen are in for trouble as are

good businessmen who provide less than competent tree care service.

Your professional trade associations, Extension Service and trade publications keep you abreast of current developments in technology and in Federal, State and local regulations. Read what you receive and listen to what you hear. If you take advantage of all of the information that is available to you the OSHA man and becoming a Certified Commercial Applicator will not be difficult. For the truly professional tree man these regulations will help rather than hinder, with some exceptions.

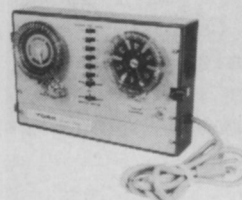
Plan your time and use it profitably. Wasted motion is needless exercise that doesn't buy steak! Depending on your responsibilities emphasize those areas which will result in the most benefit for the company. You can't afford to sit still.

Management must stay on top of expenses, accounts receivable and eliminate non-productive overhead. Let the demand determine the need. Work closely with your accountant. You don't have the margin available for too many errors. Set an example for those who work with you. If you show an interest in an area your associates will.

We can meet the challenge if we want to. The tree care industry has always been symbolic of the rugged individualism that this country was founded on. Today this rugged individualism must be applied not only up in the air but on the ground and it must be coupled with good judgement! □

SPRINKLE • SOAK • SPRINKLE • SOAK • SPRINKLE . . . AUTOMATICALLY

Sprinkle for just 2½ minutes, soak for 5, sprinkle again — for any section requiring intermittent sprinkling and soaking; water another section for the full 32½ minutes. All programmed on the amazing new TORK 5106, a new concept in automatic control. Saves water too—controls up to 6 zones.



TORK 5106

Now, you can also choose from 3 NEW Models:

- Model 5106N — with Rapid Advance — no delay between zones.
- Model 5112 — 12 zones, with Rapid Advance
- Model 5206 — Economy unit — same features as 5106

For information now, call or write to:
Michael Bizzoco (914) 664-3542

TORK

AUTOMATIC IRRIGATION DIVISION

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Government News Business

Appraisement (setting trade value) is being withheld by the U. S. Treasury Department from some electric golf cars imported from Poland pending an investigation. This investigation is to determine if the cars, imported into the country by Melex U.S.A., Inc. are being sold in the U.S. at less than fair value. If it is decided by June 14 American manufacturers have been injured, the International Trade Commission will conduct a three-month investigation scanning the U.S. market for golf cars. If the ITC decides the golf cars are being sold at less than fair value, a duty will be charged on all Melex golf cars brought into the country since March 14, the date of the withholding action. The ITC decision would come on or before September 14. The investigation stems from a complaint made March 14, 1974, by Cushman Motors Div., OMC Corp., manufacturers of Cushman golf cars.

OSHA has developed a self-teaching course in the principles and practices of on-the-job safety for first-line supervisors. The course consists of an administrator's manual that provides instructions to the person who will administer the course, plus six booklets containing 14 lessons. The format of the course is based on a programmed instruction technique in which students, using course materials, teach themselves. Entitled "Principles and Practices of Occupational Safety and Health - A Programmed Instruction Course," the booklets may be ordered from the U.S. Government Printing Office, Washington, D. C. 20409.

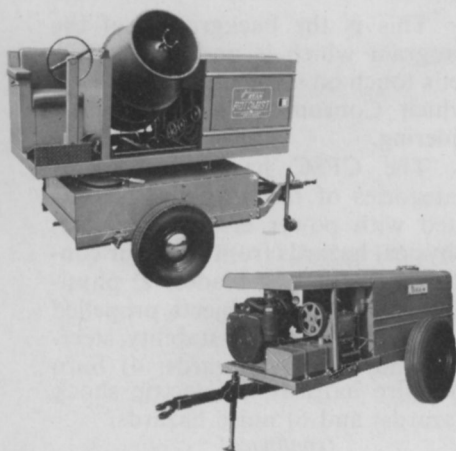
Rebates reached the Green Industry when International Harvester announced a nationwide direct sales rebate to retail customers of most industrial equipment models. Pay Line Division Marketing Vice President, J. L. Adams said the program will serve a two-fold purpose: "First, it will increase the cash flow in the economy, both national and local, and second, it should more firmly establish Pay Line Division's already strong position in the highly competitive industrial equipment market." Rebates vary from \$300 to \$1,500 depending on the price of the unit for a three month period, effective April 1, 1975.

Pioneer Chain Saws will move into a 160,000 sq. ft. manufacturing facility in Peterborough, Ont. this spring. Thomas P. McMillan, president of OMC Corp. of Canada, Ltd., said the facility will augment chain saw production in the main 500,000-sq. ft. facility already in Peterborough. He said the combined plants will enable Pioneer to double its production capability.

OSHA boss, John H. Stender, recently announced a program to more actively involve states in the development of workplace safety and health standards. Stender said OSHA will send draft standards to certain states for their review and comment before OSHA proposes them for public comment. States with OSHA-approved plans for their own job safety and health programs, may participate on request and also may participate during public comment periods on final proposals. Interested states will be sent copies of standards drafts as they become ready for technical review.



Seasonal leaf drop is one thing...



... but loss of leaves through bark and leaf infestation is quite another. To protect your shade trees from disaster, a well-planned spray program is well worth the time it requires — and FMC spraying equipment is the best way to go. FMC's Rotomist® controlled-air sprayers for example, are specifically engineered to give you maximum penetration and assure you the best possible coverage and protection. FMC's line of high pressure sprayers also afford you the versatility and performance you

need...are available skidmounted or in trailer models, with hose and gun for effective shade tree applications. You won't find any better tree protection than with FMC sprayers. Contact your nearest FMC representative for a demonstration today, or write the FMC Corporation, Agricultural Machinery Division, Jonesboro, Arkansas 72401.

FMC Environmental
Equipment

Newly proposed power equipment standards will drastically alter existing mower designs if accepted. But what will they do to present cost and repair factors? And will we be able to live with them?

Background

Last July, the Federal Consumer Products Safety Commission (CPSC), a five-member group empowered to set safety standards on a wide range of consumer products, published a Section 7(B) Notice in the Federal Register that "certain hazards associated with the use of power lawn mowers present unreasonable risks of injury to the public." Publication of a Section 7(B) Notice is the method used by

The Great Mower Debate

By JAMES C. WALKER, Outdoor Equipment Co., St. Louis, Mo.

CPSC to notify an industry that its products are considered dangerous.

The Notice was pretty much of a surprise to the Outdoor Power Equipment Institute (OPEI) whose members produce about 85 percent of all turf and grounds maintenance equipment in use today. The OPEI, which has been developing safety standards since the mid 1950's, carefully followed CPSC's procedures in submitting necessary documents in the hope that it would be selected to establish new safety standards. With 14 years experience in safety programs and a firm foundation of the American National Standards Institute specifications, OPEI assumed this work could be continued and desired results could be achieved in

the prescribed time and at minimum cost.

However, the hand of the federal government intervened and by a split decision, CPSC designated Consumer's Union to develop the proposed standards because they "wanted to involve the consumer and Consumer's Union could better accomplish this."

Consumer's Union, a non-profit organization best known for its publication of the monthly magazine *Consumer Reports*, received a \$90,000 grant from CPSC to develop the standards. A 20-person committee was formed with Bertram Strauss as chairman. There are four or five committee members who have firsthand knowledge of the power equipment industry. Among the other members are three engineers, an economics professor, an attorney, two persons from major retail chains, a surgeon and several consumers "having substantial experience with power lawn mowers."

Consumer's Union was given 90 days to develop the safety standards and present their proposal to CPSC. On Dec. 24, 1974, CPSC granted a six-month extension and an additional \$90,000 for the development of the mandatory standards. The final proposal must be delivered on June 19, 1975, and it is proposed that the standards will be mandatory on all 1976 production.

This is the background of the program which is underway. Now let's touch on some of the proposals which Consumer's Union is considering.

The CPSC has identified six categories of risk of injury associated with power lawn mowers: 1) physical hazards from operator contact with rotating blades; 2) physical hazards from objects propelled by rotating blades; 3) stability, steering and braking hazards; 4) burn and fire hazards; 5) electric shock hazards; and 6) noise hazards.

(continued)

Right-of-way to clear??

WITH BIG HILLS ON IT? NOW THAT WE'VE ADDED CATERPILLAR® POWER, WE'VE GOT YOUR MACHINE

Our new Klearway 10-7 has a Cat® 3208 engine providing over 50% more power than previous models.

That means big hills and fast cutting for the Klearway

And that means time and money saved for you.

KLEARWAY - the most advanced cutter made.



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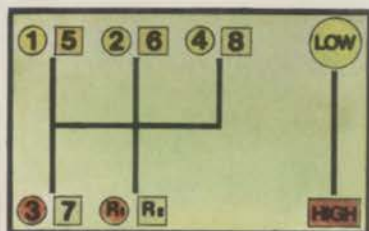


Ford 4110 LCG shown with 917 Flail mower.

The real low-down: Ford LCG

Compact, low-slung Ford LCG tractors give you extra-low center-of-gravity . . . just 21 $\frac{3}{4}$ inches above ground . . . for hill-hugging stability.

Weight is well distributed front and rear for easy handling and maneuvering under all conditions. Add optional low-pressure tires for increased flotation and you'll know why Ford LCG's are the number one choice for work on fine turf.



Dual-range 8-speed transmission lets you match your ground

High-flotation tractor tires are optional at extra cost.

and growth conditions with a choice of four mowing speeds ranging from 3.4 to 6.9 mph. Or choose power-shift 10-speed, or cost-saving 6-speed transmission (2110 only).

Ford 3-point hitch with "live" hydraulics provides quick, responsive control over rear equipment.

One convenient lever on the quadrant with an adjustable stop lets your operator raise, lower, adjust equipment on-the-go, for faster lawn maintenance and lawn renovation work.

Follow the contour. Optional rocker arm—flexible hitch linkage—lets mounted mowers follow changing ground contour.

This prevents scalping.



Get the real low-down with Ford LCG tractors in three power sizes: 31.9, 38.3 and 52 PTO horsepower. Gas or diesel. Your Ford industrial tractor and equipment dealer is listed in the Yellow Pages under "Tractor Dealers" or "Contractors' Equipment & Supplies". See him for information on how to buy, lease, rent or finance.



Ford-for the long run
FORD TRACTORS





THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO TURF HERBICIDE MCPP

For the control of various broadleaf weeds such as dandelion, clover, chickweed, and other undesirable weeds on golf courses, lawns, and other areas where a well-maintained turf is desired.

ACTIVE INGREDIENTS: MCPP 90%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children

THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO TURF HERBICIDE "D"

For control of broadleaf weeds in turf, including golf courses, lawns, and other areas where a well-maintained turf is desired.

ACTIVE INGREDIENTS: Diquat 80%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children

THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO SPOT KLEEN

For the control of various broadleaf weeds in turf, including golf courses, lawns, and other areas where a well-maintained turf is desired.

ACTIVE INGREDIENTS: MCPP 90%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children

THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO BUCTRIL

For the Control of Certain Broadleaf Weeds in Many Types of Grasses for Golf or Lawn Purposes.

ACTIVE INGREDIENTS: Buctril 90%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children
Do NOT Store with Fertilizers
DO NOT USE FOR: HILL, OR OTHER SLOPE THAT IS OPEN TO EROSION

THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO TURF KLEEN

For control of many broadleaf weeds in golf courses and other recreational and ornamental areas.

ACTIVE INGREDIENTS: MCPP 90%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children
Do NOT Store with Fertilizers

THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO SPREADER-ACTIVATOR

FOR TURF AND ORNAMENTAL PLANTS

ACTIVE INGREDIENTS: 100%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children

THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO THIRAM 75

CHIPCO THIRAM 75
TURF FUNGICIDE

ACTIVE INGREDIENTS: Thiram 75%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children

CHIPCO CHEMICALS OF TEXAS, INC.
P.O. Box 1000, Houston, TX 77240

THE RIGHT APPROACH™ TO GOOD TURF

CHIPCO MICROGREEN LIQUID

A blend of water soluble complexes of iron, zinc, manganese and copper for the correction of turf nutritional deficiencies.

ACTIVE INGREDIENTS: Iron 10%, Zinc 10%, Manganese 10%, Copper 10%
NET CONTENTS: 5 GALLONS

CAUTION: Keep Out of Reach of Children

You're looking at the most effective arsenal ever assembled to protect your turf.

With this formidable array of armament on your side, you have a broad spectrum turf management program that can ward off just about any attack.

And you can manage it all with surprising economy. Chipco products protect the green of your turf without straining the green in your budget.

Just try any one of them, and you'll want the entire arsenal. Because once you use a Chipco anything, you'll soon be using Chipco everything else.

Chipco Buctril[®] gives early control of broadleaf weeds in newly planted grasses for sod or seed production.

Chipco Turf Herbicide MCPP controls clover, chickweed, knotweed and other surface creeping weeds and is safe and effective for use on most bent grasses.

Chipco Turf Kleen is a broad spectrum herbicide that controls broadleaf and surface creeping weeds with a wide margin of safety around trees and shrubs.

Chipco Spot Kleen is a systemic fungicide for control of dollar spot, Fusarium blight, stripe smut, large brown patch and copper spot.

Chipco Thiram 75 prevents and controls snow mold, large brown patch and dollar spot. Used with Spot Kleen, it offers a complete disease control program.

Chipco Microgreen Liquid provides micronutrients to your turf which results in long lasting deep green color, more root growth and less desiccation.

Chipco Turf Herbicide D is a general purpose broadleaf herbicide ideally suited where economical control is desired.

Chipco Spreader Activator is a superior adjuvant to increase the efficiency and effectiveness of turf chemicals.

Chipco Crab Kleen gives economical and selective post-emergence control of crab grass, chickweed and other grassy weeds in established turf.



Rhodia Inc., Agricultural Division, Somerset, New Jersey 08873

Operator Contact

Regarding the hazards associated with operator contact with the blades, Consumer's Union is proposing the following standards:

* Power lawn mowers shall have a deadman's control to stop the blade within two seconds if the operator leaves operating position without stopping the engine. This is to be

accomplished by a special clutch and brake combination inserted between the power source and the cutting mechanism.

* There shall be a means to automatically prevent the motor from starting if the deadman's control should become permanently actuated. This requires an electronic sequential sensing mechanism requiring a period of no actuation of the deadman's control before the engine can be started.

* The deadman's control shall be "fail-safe" with failure of any part of the system resulting in stoppage of the blade. This proposal calls for a spring-loaded blade-clutch brake automatically applied if the control becomes damaged.

How would you like to fix that one in the service shop?

Also proposed is an interlock which will permit blade rotation only when the mower is moving forward, causing blades to stop within two seconds when the mower is shifted to neutral or reverse. Can you visualize this device when you're in a tight area and are trying to do a little trimming?

Consumer's Union is also proposing that a riding mower or lawn tractor have a means on each side to:

* Prevent an operator's foot from touching the ground within the width of the cut swath, or between fore and aft lines tangent to the blade shielding or the outermost tip of the discharge chute, whichever is greater;

* and to prevent an operator's foot from being trapped between a wheel and any other part of the mower while the user is in the operating position.

The suggested solution calls for fenders and running boards which extend beyond the outer limits of the blade housing and discharge chute and follow the contour of the wheels to the point beyond the highest point on the wheel. This really presents an interesting picture on a Jacobsen F20 tractor mowing a 21-foot swath, or even an 88-inch rotary. It resembles the flight deck of a nuclear aircraft carrier.

Propelled Objects

To reduce the energy and range of thrown objects, the proposed maximum tip speed of the blades shall be 15,000 feet per minute. Two years later, maximum tip speed shall be reduced to 12,000. The typical small engine today is horsepower rated at 3600 RPM. Engines will have to be redesigned to produce maximum torque at lower RPM. Suddenly, we find ourselves caught up in complete design revisions with more multi-blade units, larger horsepower engines and complicated drive mechanisms because we no longer develop the torque necessary to obtain performance, particu-



For turf. Any turf.

3-D Weedone.

A special blend of three herbicides in one that turns a fairway or a front lawn into beautiful, weed-free turf.

It's powerful. It contains 2,4-D, the standard, time-tested broadleaf herbicide that controls most common turf weeds. Plus Dicamba, to broaden its control to more than 100 species of weeds and woody plants.

It's fast. Silvex speeds up the whole weed-control process and gives you added,



effective control over chickweed, clovers, and other tough weeds.

It's professional. Yet you don't have to be a pro to use it. Just mix with water, spray, and watch the weeds disappear.

Use 3-D Weedone. For great results on turf. Any turf.



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