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DISPOSAL OF PESTICIDE CONTAINERS

Max A. Brown, Ph.D.
Florida Turf Grass Association
302 South Graham Avenue
Orlando, Florida 32803

Dear Dr. Brown:

The department stated at a recent association meeting in Tampa, that turf grass operations (but not sod farms) were ineligible to engage in the open burning of pesticide containers authorized by Section 7-5.09(5), F.A.C., the Open Burning Rule.

The statement apparently generated some confusion, and some guidance may be appropriate on the proper disposal of pesticide containers that cannot be disposed of by open burning.

The containers and waste pesticides left over after an application can be classified as either solid or hazardous waste. This classification must be made in accordance with Chapter 17-30, F.A.C. before the fate of waste pesticide or containers can be determined. If the waste material is found not to be a hazardous waste (such as malathion), then the container and residues may be disposed of conventionally in a solid waste treatment system. If the waste material is identified or listed by the department's hazardous waste rule (such as parathion or 2,4, D (17-30, F.A.C.)), then the following procedures must be followed:

1. Any container capable of being rinsed out, may be triple rinsed and the rinse residue may either be properly reused in the spray formulation, or treated and disposed of as a hazardous waste. The rinsed container then may be disposed of as solid waste in a landfill.
2. Any unrinsed containers or bags or inner liners that cannot be triple rinsed must be accumulated, placed in appropriate containers, and shipped offsite to a properly permitted hazardous waste treatment, storage, or disposal facility (hazardous waste landfill or incineration facility).

If you or your staff have any questions about these disposal requirements, please contact Robert McVety or Michael Redig of the Bureau of Waste Management at (904) 488-0300 or at the letterhead address. They will be available to present a waste management program at your March 6, 1986 seminar on Pesticide Waste Management as requested by William Nass of your association.

Sincerely,
VICTORIA J. TSCHINKEL, Secretary
Department of Environmental
Regulation, State of Florida



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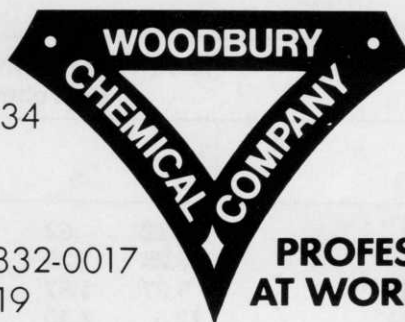
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WETTING AGENTS VS. CROP OIL CONCENTRATES

Wetting agents are usually grouped into a class of compounds termed surfactants (surface active agents). They are capable of emulsifying, dispersing, wetting, and spreading, but their primary purpose is to reduce the surface tension of a spray solution. This allows more contact between the spray droplet and the plant surface. The principal functioning agents of these products may vary greatly in makeup and percent active ingredient.

Crop oil concentrates are another type of adjuvant. They normally contain 75-80 percent nonphytotoxic oil and 15-20% surfactant/ emulsifier. They, like the wetting agents, vary greatly, first in grade and refinement of oil, and second in type and quality of surfactant/emulsifier. Crop oil concentrates usually enhance penetration more than surfactants alone. This is believed to be the result of the action of the oil in relation to the waxy cuticle and to the buildup of surfactant molecules in the cracks and openings of leaf surfaces. The purpose of the surfactant/emulsifier in this mixture is to emulsify the oil in the solution, lower the surface tension of the overall spray solution, and aid in cuticle penetration.

Crop oil concentrates and surfactants increase pesticide contact by:

1. Helping spray droplets stick to the plant, resulting in less run-off.
2. Causing a more uniform spreading of spray solution and uniform wetting of the plant.
3. Assuring that droplets do not remain suspended on hairs, scales, or other surface projections.

ADJUVANT SELECTION

Once the type of adjuvant needed has been determined, differences between products of the same type must be resolved. Products represented as being "the same thing" may possess major differences in activity. Malathion and parathion have often been considered "the same thing" by some, although significant differences exist in their individual activity. That same difference in range of activity may also be found between to adjuvant products of the same type. Valid and reliable data, derived from testing the adjuvant product, should accompany company claims. This information is often available from Extension, university, or manufacturer sources.

RATE SELECTION

Once a suitable adjuvant has been selected, it is equally important to determine and use the correct rate of adjuvant. Unlike pesticides, adjuvant rates are determined both on a volume/volume basis and a per acre basis. Most wetting agents (based on a minimum 70% active ingredient) are recommended at one-quarter to one-half percent volume/volume concentration and most crop oil concentrates are recommended at one percent volume/volume concentration. The following table will serve as a useful guideline in selecting the correct adjuvant rate.

(table at end of article)

Finally, several key factors should be considered in the selection of the proper adjuvant:

(continued on page 36)

COVERAGE DIFFERENCES

ADJUVANT CONCENTRATION PERCENTAGE
By Volume (% Concentrate v/v)

Adjuvant Rate	Gallons of Spray									
	1	5	10	15	20	25	30	40	50	100
.25 pt. (4 fl. oz.)	3.12	.62	.31	.21	.16	.13	.10	.08	.06	.03
.50 pt. (8 fl. oz.)	6.25	1.25	.62	.42	.31	.25	.21	.16	.13	.06
.75 pt. (12 fl. oz.)	9.37	1.87	.94	.63	.47	.38	.31	.23	.19	.09
1.00 pt. (16 fl. oz.)	12.5	2.50	1.25	.83	.63	.50	.42	.31	.25	.13
1.50 pt. (24 fl. oz.)	18.7	3.75	1.87	1.25	.94	.75	.63	.47	.38	.19
2.00 pt. (32 fl. oz.)	25.0	5.00	2.50	1.67	1.25	1.00	.83	.63	.50	.25
2.50 pt. (40 fl. oz.)	31.2	6.25	3.12	2.08	1.56	1.25	1.04	.78	.63	.50
3.00 pt. (48 fl. oz.)	37.5	7.50	3.75	2.50	1.88	1.50	1.25	.94	.85	.38
4.00 pt. (64 fl. oz.)	50.0	10.0	5.00	3.33	2.50	2.00	1.67	1.25	1.00	.50
1.00 gal. (128 fl. oz.)	100.00	20.0	10.00	6.67	5.00	4.00	3.33	2.50	2.00	1.00

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A lot of people may know how to install a pumping station. But few of them know what to do after the installation.

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AquaTurf is No. 1 in service and proud of it. In more than 12 years of designing, building and installing pumping stations for all types of applications, we have always made it a point to be available to our customers whenever they need us.

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(continued from page 34)

1. Use only nonionic surfactants manufactured and marketed for agricultural use.
2. Buy or calculate the cost based on the percentage of active ingredient. A 50 percent active ingredient per gallon is equal to only one-half of a 100 percent material.
3. Do not consider isopropyl alcohol or water as active ingredients. If the label does not specifically state the percentage of active surfactant, ask the dealer for this information.
4. Do not buy or use household detergents for use with pesticides.
5. There are no miracle surfactants. Claims that a surfactant can be used at concentrations much lower than conventional surfactants should be questioned. Ignore claims such as "keeps spray equipment clean," "causes better root penetration and nutrient uptake, water penetration," etc. If it sounds too good to be true, be suspicious.
6. Buy from a reliable dealer, considering the manufacturer; read the label; and base the price on the active surfactant cost.
7. Make sure the adjuvant has been tested and proven effective — that it has been formulated from raw materials for specific use, and is recommended where a need is established. ■

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INTRODUCING THE NEW TORO GREENS AERATOR



**Built for speed.
Designed to Last.**



Finally an alternative.

Toro's new Greens Aerator can help you aerate your greens faster than the leading competitive machine. But that's not the only advantage. Toro also outdistances the competition by adding **greater horsepower, heavy duty construction,** and a modular design for easy servicing. All that you need to make one of your seemingly longest tasks in golf course maintenance a whole lot shorter.

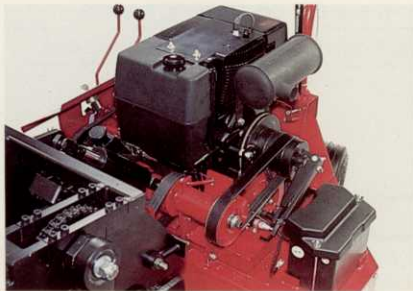


1 Up to 13,000 square feet per hour.



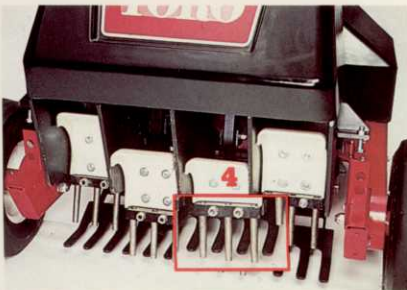
Compare that to the competition. Toro keeps you way out in front because of its increased ground speed — and wider coring width. 13,000 square feet per hour means you'll do the job almost twice as fast as you're doing it today.

2 Greater power.



A powerful 16hp 4-cycle Kohler engine is the reason here. Twice the horsepower of the leading competitor. And that gives you the power to handle all turf conditions with less effort.

3 Better, more uniform penetration.



Not only does Toro give you more power, it gives you a deeper, more effective coring depth. And when you consistently get a good core and a clean hole that means effective aeration.

4 Quick tine change.

Again, another Toro design with the user in mind gives you an advantage in speed. This design makes it easy to remove and replace tines in less than five minutes with an ordinary socket wrench. (See inset in feature 3.)

5 Easy operation.



It begins with a turn of the key. No pulling or tugging on ropes. Throttle, choke, brake and clutch controls are within easy reach of the operator. As is a hydraulic-lift lever for the coring unit.

6 Minimizes compaction.



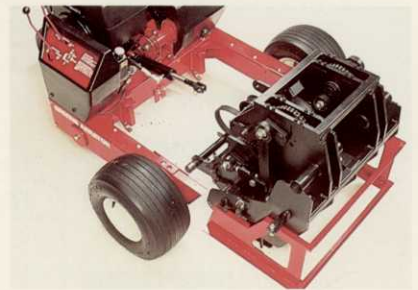
Larger floatation tires not only minimize compaction, they also make the machine easy to control.

7 Puts you in control.



Only Toro gives you a reverse gear for increased maneuverability, and an interlock system designed to stop the engine if the operator lets go of the handle while the clutch is engaged.

8 Easy servicing.



Here's where Toro's exclusive modular design really shines. Because there are fewer moving parts to deal with, breakdowns are minimized. When there's a need for maintenance, the entire coring head can be removed easily. And like the tines, it takes just minutes.

9 Accessories.



Toro Greens Aerator accessories include a Windrower for easier core gathering, a Coring Head Stand, and a Tire Scraper Kit.

Put it all together and you can see just what kind of advantage the Toro Greens Aerator can give you. For speed, durability and performance, only one name will be dotting the landscape: **Toro**.

Before you look at another aerator, contact your local Toro distributor for more information.

Greens Aerator Specifications*

GREENS AERATOR (MODEL NO. 09100)	
ENGINE	Kohler, 4 cycle, air cooled, 16 hp @ 3600 rpm, 35.90 cu. in. (588 cc) displacement. Electric start. Heavy duty cast iron block. Stellite® intake and exhaust valve and rotor. Mechanical fuel pump, large capacity dual element air cleaner. 4 pint oil capacity. Electronic ignition.
ELECTRICAL	12 volt battery, 32 amp-hour. 15 amp alternator. Ignition switch with interlocks on control handle and clutch.
FUEL CAPACITY	1.8 gallons gasoline.
TRACTION DRIVE	Double banded V-belt from mechanical clutch on engine to Peerless Model 2360 transaxle. Two speeds forward — 1 reverse. Wheels driven individually by chains from transaxle.
GROUND SPEED	1st Gear Forward: 1.1 mph @ 3600 rpm (coring). 2nd Gear Forward: 3.3 mph @ 3600 rpm (transport). Reverse: 1.3 mph @ 1200 rpm.
GROUND CLEARANCE	4 inches.
TIRES/WHEELS/PRESSURES	Two steering tires (front): 13x5.0-6, 2 ply, Rib Tread tubeless. Two drive tires (rear): 18x9.50-8, 4 ply, Rib Terra tubeless. Drop center demountable rims, greaseable tapered roller bearings, 8-10 psi.
FRAME	Welded steel construction — tricycle.
SERVICE BRAKE	Disc type mounted to transaxle.
CONTROLS	Clutch, hydraulic lift, and keyswitch on control console. Throttle and choke on engine. Transaxle shift on frame. Interlock switches and service brake on steering handle.
IMPLEMENT DRIVE	Triple banded V-belts from engine to countershaft and from countershaft to coring head.
DIMENSIONS	Length: 79 inches Width: 55.5 inches Height: 39 inches Wheelbase: 44 inches Weight: 1275 pounds
CORING UNIT	
CONSTRUCTION	Welded steel frame construction with four crankshafts mounted in precision ball bearings. Crankshafts drive four coring arms/tine heads. Unit designed such that coring head is easily removed from traction unit.
DRIVE	No. 50 0-ring chain from countershaft to coring crankshafts.
LIFT	Single hydraulic cylinder powered by a Saginaw pump. Lift valve actuated by lift control lever.
TINE HEADS	4 individual heads each holding three tines. Discharge chutes direct cores rearward away from drive components.
CORING WIDTH	27 inches.
HOLE PATTERN	2.25" x 2.5".
PRODUCTIVITY	Aerates up to 13,000 sq. ft. per hour.
CORING DEPTH	Up to 3.0 inches.
TINES	Case hardened tubing, hollow tapered design. 5/8" tines standard.
ACCESSORIES	
TINES	5/8" Tines, P/N 59-3670; 1/2" Tines, P/N 59-3680; 3/8" Tines, P/N 59-3690; 5/8" Long Wear Tines P/N 59-9770; 1/2" Long Wear Tines P/N 59-9760.
WINDROWER	Model 09150; diverts debris into a row for easy removal.
CORING HEAD STAND	Model 09152; supports coring head during servicing.
TIRE SCRAPERS	Model 09151; removes accumulation of soil from drive wheels.

*Specifications and design subject to change without notice. "Toro" is a registered trademark of The Toro Company, 8111 Lyndale Avenue South, Minneapolis, Minnesota 55420.

COMMERCIAL PRODUCTS



THE PROFESSIONALS

Keep mole crickets off your turf!

Now ORTHENE® 75 S Soluble Powder, the spray that's been effective for years against a broad spectrum of foliage-feeding insects, has been cleared for control of mole crickets on turf under an SLN in Florida, as well as sod webworm and leafhoppers. Use for fire ants is also labeled.

ORTHENE gives turf two kinds of fighting protection. It kills turf pests on contact and by ingestion. Then, working as a systemic, it gives long-lasting protection by eliminating insects as they feed.

Since it's safe enough to apply without protective equipment, ORTHENE is easy to use. Its toxicity to fish, wildlife and pets is comparatively low, and once the spray dries, you can re-enter the treated area immediately.

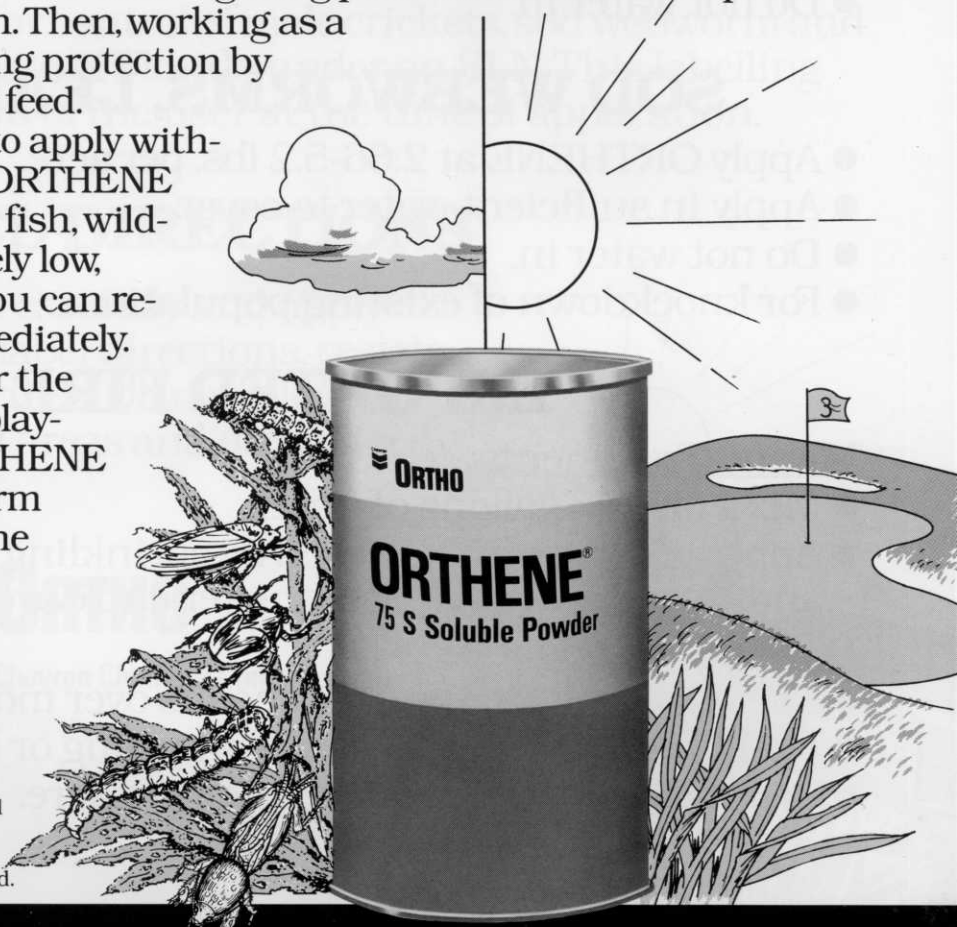
If you're responsible for the care of a golf course, park, playground or picnic area, ORTHENE 75 S Soluble Powder can arm you and your turf against the pests that bug you most.



ORTHO

Chevron Chemical Company

Avoid accidents. For safety, read the entire label including precautionary statements. Use all chemicals only as directed. Copyright © 1986. Chevron Chemical Company. All rights reserved.



ORTHENE®

Control tough turf pests with Orthene.

MOLE CRICKETS

- Bring moisture level up prior to chemical application.
- Apply ORTHENE at 3-5 lbs. per acre.
- Apply in late afternoon or early evening hours.
- Do not water in.

SOD WEBWORMS, LEAFHOPPERS

- Apply ORTHENE at 2.66-5.2 lbs. per acre.
- Apply in sufficient water to cover.
- Do not water in.
- For knockdown of existing populations.

IMPORTED FIRE ANTS

Mound Treatments

- Mix 1 oz. in 5 gallons of water.
- Apply 1 gallon of mix to each by sprinkling the mound until it is wet and treat a four (4) foot diameter circle around mound.

Dusting Method

- Evenly distribute 1 to 2 teaspoons over mound.
- For best results, apply in early morning or late afternoon.
- Treat a maximum of 13 mounds per acre.

O **ORTHENE**[®]

Get easy, effective protection.

EASY TO APPLY

ORTHENE mixes readily with water, and flows through application equipment without clogging or settling out. Be sure to use enough water to cover treated area thoroughly.

REGISTERED FOR USE ONLY IN FLORIDA

ORTHENE is registered for control of mole crickets, sod webworm and leafhopper only in the State of Florida under an SLN. This labelling must be in the possession of the user at the time of application.

FOLLOW LABEL DIRECTIONS

Read the label directions carefully and apply ORTHENE according to label directions, restrictions and worker safety rules. Do not allow livestock to graze treated areas and do not feed treated grass to livestock.



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Orthene's proven on plants and trees. Now let it protect your turf.

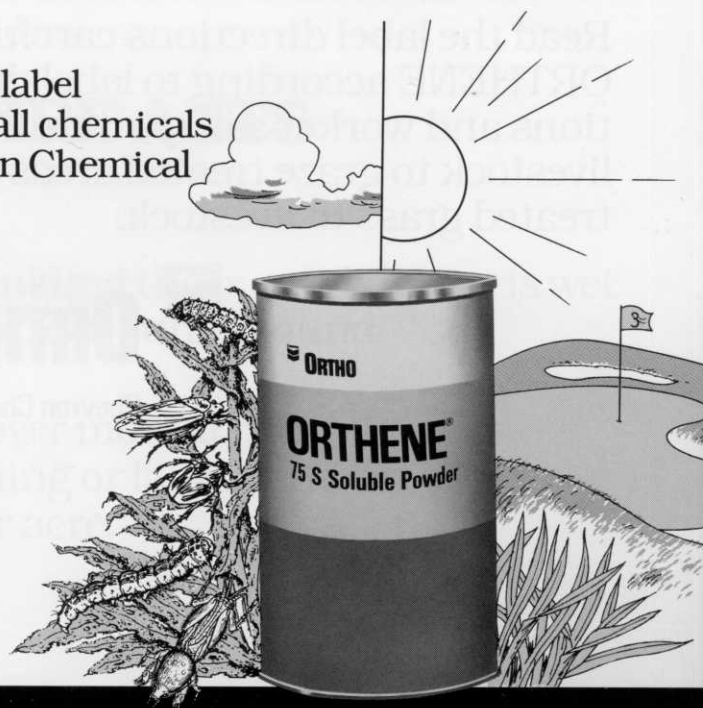
- ORTHENE is safe to use and can be applied without any protective equipment.
- ORTHENE is compatible with most insecticides and fungicides.
- ORTHENE is versatile and is labeled for many uses.
- ORTHENE gives effective broad spectrum control of turf insects.
- ORTHENE is packaged in convenient 12 x 1 lb. packages per case and 4 x 10 lb. packages per case.

Avoid accidents. For safety, read the entire label including precautionary statements. Use all chemicals only as directed. Copyright © 1986. Chevron Chemical Company. All rights reserved.



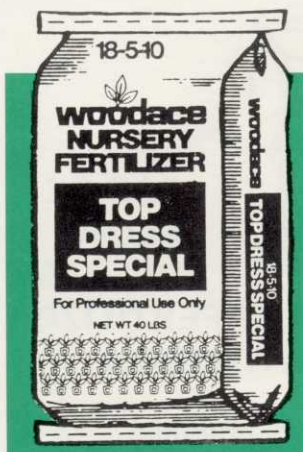
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WOODACE® GOES SLOW AND GROWS FAST.



Woodace is the landscape fertilizer that *goes slow and grows fast*. Woodace Briquettes and Woodace Top Dress Special contain IBDU slow-release nitrogen source. Nitrogen is released slowly, evenly, so plants grow gaster. The Briquettes release over 12 months, the granular Top Dress over a 3 month period. Other popular nitrogen sources can lose almost half their nitrogen in 2 weeks! And since Woodace fertilizer lasts longer, you'll fertilize less often and save on labor too!

Woodace Briquette fertilizer (14-3-3) is ideal for virtually all shrubs, trees and other landscape plantings. Just add the Briquettes either at planting or below the soil surface around existing plantings and you've fertilized for an entire year!

Woodace Top Dress Special (18-5-10) is a granular mix with IBDU slow-release nitrogen and secondary elements that's ideal for soil application on all outdoor landscape plantings. This 3 month formula will substantially cut fertilizer application costs and improve growth.

Use the fertilizer that *goes slow and grows fast*. Woodace Briquettes and Woodace Top Dress Special. Not just another fertilizer... but a revolutionary blend of technology and chemistry. Phone your nearest Estech location today for delivery.

Woodace Briquettes



Actual Size

Established Trees and Shrubs

3 Briquettes per ft. of spread or 6 per 1" diameter of trunk. Use 10 to a maximum of 40 Briquettes per tree. Place Briquettes 3"-6" deep in holes around drip line.

**woodace**®

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At Par Ex, our only business is fertilizer. To enhance our current high performance dry blends and to better serve our customers, we have recently completed and opened our new liquid fertilizer plant. We are conveniently located to serve the Southeast, Southwest and Central Florida areas with prompt delivery and service. Production has now started and we are able to custom formulate quality *clear liquid fertilizer* mixes to suit your particular turfgrass needs.

FERTILIZER PLUS PESTICIDE MIXES

The mole cricket season is upon us and this is a good time to apply our Par Ex fertilizer mixes plus Oftanol. The Par Ex 21-2-6 Slow Release Fertilizer Plus Oftanol is an excellent slow release fertilizer mix with 2 lbs. of active Oftanol per ton.

Take advantage of this labor and cost saving product at your course. And if this mix doesn't fit your current program we can custom formulate your particular fertilizer with Oftanol.

Check with your Par Ex Salesman for more information.



PAR EX SLOW RELEASE GRANULAR FERTILIZER MIXES WITH IBDU

High quality granular fertilizer mixes are what most golf course superintendents prefer. The Par Ex Slow Release Fertilizer mixes with IBDU as the primary nitrogen source are used on many of the nation's finest golf courses and premier turf areas.

IBDU (31-0-0), one of the most unique controlled release nitrogen sources available, is marketed exclusively by PAR EX.

We have many formulations available to suit various turf needs, or we will custom formulate to provide optimum fertilization for your turfgrass.

CUSTOM BLENDS

Estech Branded Fertilizers, Inc. formulates the Par Ex products to satisfy various turfgrass requirements. However, we realize that your exact needs may vary, so we offer our extensive research and development experience of over 100 years in producing the fertilizers to create a special formulation to meet your exact requirements.

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MEMBERSHIP APPLICATION FOR FLORIDA GOLF COURSE SUPERINTENDENTS ASSOCIATION

(PLEASE PRINT)

I, _____, hereby make application for membership
in the _____ G.C.S.A. and agree to observe and abide by its by-laws.
(local chapter)

My mailing address is _____, Zip Code _____

I am employed by _____, City _____

I have been employed here for _____ years. Position: _____

Age: _____ Date of Birth: _____

Phone: Home: _____ Bus.: _____

Marital Status _____ Spouse's Name _____

Number of Dependents _____

WORK EXPERIENCE:

Firm or Club	Address	Position	Years
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

List other organizations and associations in which you are member that are related to your profession _____

Please list ways you feel that you can contribute to this organization and the betterment of its members _____

Personal References in this profession. _____

Date _____, 19 _____ Signed _____
Signature of Applicant

**APPROVAL BY MEMBERSHIP
COMMITTEE REPRESENTATIVE:**

Signature

Date

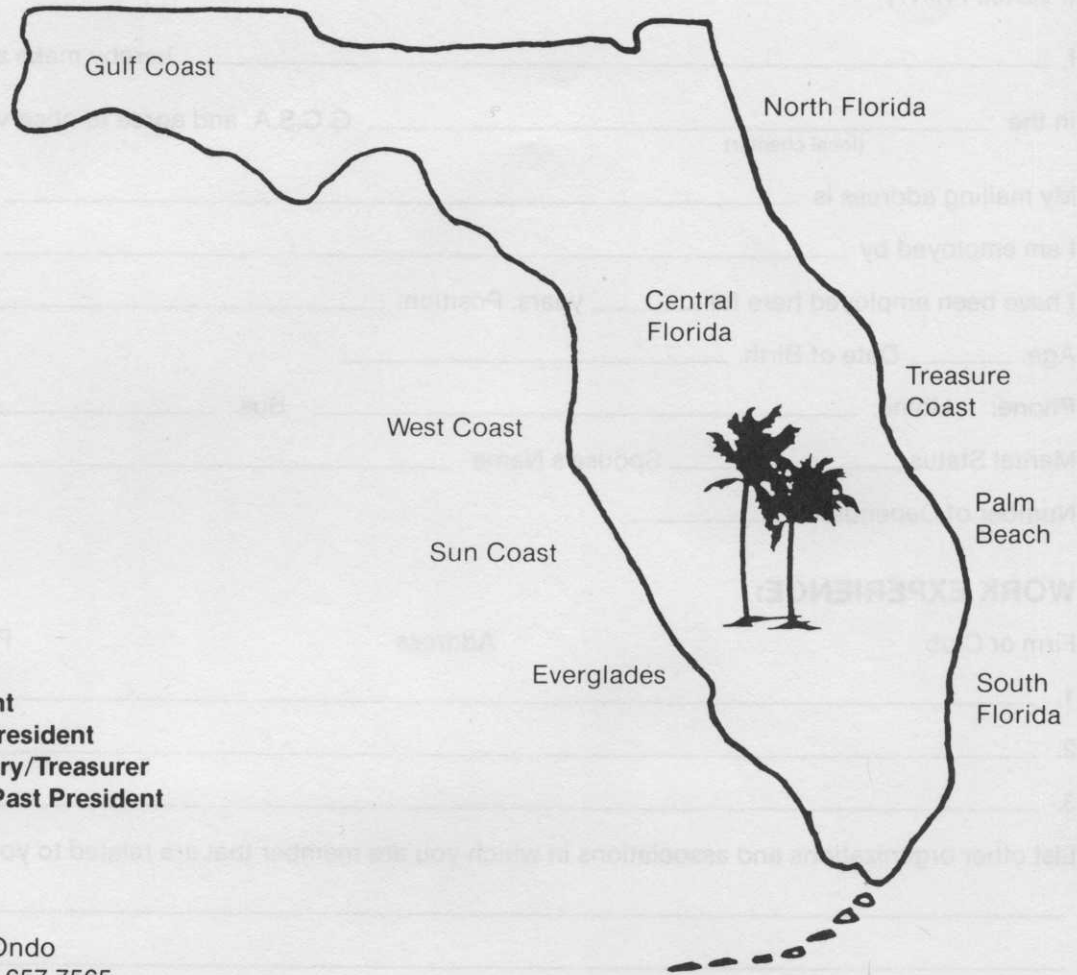
Officer's Signature

Final Approval Date

MAIL APPLICATION TO:

FLORIDA GOLF COURSE SUPERINTENDENTS ASSOCIATION
c/o MARIE ROBERTS, SECRETARY
1760 N.W. PINE LAKE DRIVE
STUART, FLORIDA 33494

FLORIDA GOLF COURSE SUPERINTENDENTS ASSOCIATIONS



OFFICERS:

- Tom Burrows - President**
- Reed LeFebvre - Vice President**
- Richard Blake - Secretary/Treasurer**
- Don Delaney, CGCS - Past President**

Central Florida	Joe Ondo (305) 657-7565	South Florida	David Lottes (305) 475-0400
Everglades	Mark Hampton (813) 263-0761	Suncoast	Gary Smither (813) 923-3104
Gulf Coast	Chuck Rettew (904) 452-2555	Treasure Coast	Kevin Downing (305) 283-7500
North Florida	John Hayden (305) 733-3464	West Coast	John Luper (813) 392-1234
Palm Beach	Steve Pearson (305) 487-1800		

IF INTERESTED, PLEASE FILL IN THE MEMBERSHIP APPLICATION ON THE REVERSE SIDE AND MAIL TO THE FGCSA OFFICE AS DIRECTED. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE SUPERINTENDENT IN YOUR AREA AS LISTED ABOVE.

ADJUVANTS

Surfactants, Crop Oil Concentrates, Etc.

An adjuvant is best described as any material that is added to a pesticide or solution to enhance or modify the performance of the pesticide, solution, or application, and that has no pesticidal activity when used alone. More companies are recommending the use of an adjuvant with their pesticide product. It is important that the user understand the basic facts concerning the use of an adjuvant with pesticide products.

ADJUVANT TYPES

One must first understand the adjuvant's function in increasing pesticide spray application effectiveness. Research indicates that as much as 70 percent of a pesticide's effectiveness can be dependent on the spray application. Adjuvants can reduce, minimize, or eliminate spray application problems such as incompatibility, foaming, suspension, stability, solubility, volatilization, degradation, absorption, penetration, adherence, phytotoxicity, surface tension, droplet size, drift, evaporation, impingement, coverage, and others.

Buffering Agent

An adjuvant designed to adjust the pH of alkaline waters and minimize the hydrolysis of pesticides that tend to break down in alkaline spray solutions.

Compatibility Agent

An adjuvant which allows simultaneous application of liquid fertilizer and pesticide, or application of two or more pesticides as a tank-mix with a liquid carrier, or improves the stability and uniform distribution of a mixture.

Crop Oil Concentrate

A petroleum-based product generally containing 15-20% surfactant/emulsifier and 75-80% nonphytotoxic oil.

Drift Control Agent

An adjuvant used in liquid spray mixtures to create a cohesive spray solution that reduces spray drift.

Foam Suppressant

An adjuvant for suppressing both surface foam and trapped air. Allows quicker refilling of spray tanks and

reduces risk of exposure to toxic pesticides in foam.

Penetrant

An adjuvant that enhances a liquid's ability to enter the pores of a substrate or penetrate a surface. Penetrating agents or penetrants are usually wetting agents or crop oil concentrate/surfactant combinations.

Petroleum Oils

Refined spray oils that are classified by their relative content or straight chain, branched chain, or ring compound hydrocarbons and are broadly classed as paraffins, naphthenes, aromatics, and unsaturates.

Paraffin Based Oil

A petroleum oil used as dormant spray, summer oil, carrier for other pesticides, or an adjuvant to increase the efficacy of herbicides, fungicides, and other pesticides.

Naptha Based Oil

A petroleum oil used mainly in adjuvants formulated for use with contact herbicides. Naptha oil alone has herbicidal action on selected small weeds and grasses.

Surfactants

Chemicals which modify the surface properties of materials they contact. Surfactants can influence the wetting or spreading of liquids, mixability or normally incompatible substances, and emulsification characteristics and can modify the dispersion, suspension, or precipitation of a pesticide in water.

(Nonionic Surfactant) — An adjuvant which has no electrical charge, and is compatible with all pesticides.

(Anionic Surfactant) — An adjuvant which has a negative charge (-), and limited compatibility.

Spreader

An adjuvant which increases the area a given volume of liquid will cover on a solid or other liquid.

Sticker

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An adjuvant which increases the firmness with which finely divided solids or other water-soluble materials attach to solid surfaces.

Spreader/Sticker

An adjuvant which combines some properties of both spreaders and stickers. Generally increases the area covered and the firmness with which pesticides are attached.

U.R. Rating (unsulfonated residue)

A measure of the purity of a spray oil; the higher the U.R. percent, the less likely the oil will cause acute plant injury.

Vegetable Oil

Oil derived from seeds, usually those of cotton, soybean, peanut, and sunflower plants.

Vegetable Oil Concentrate

Vegetable oil-based product, generally containing 7-15% surfactant/emulsifier.

Wetting Agent

An adjuvant which appreciably lowers the interfacial tension between a liquid and a solid, and increases the tendency of a liquid to make complete contact with the solid's surface.

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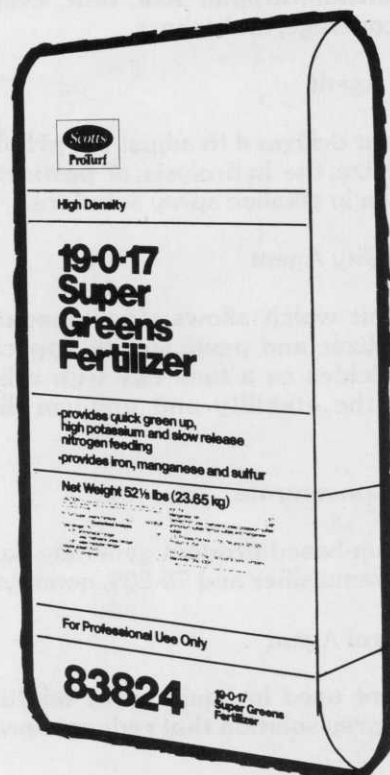


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AUGUSTIN JOINS LESCO

Dr. Bruce Augustin, associate professor at the University of Florida since 1980, has joined LESCO, Inc., Rocky River, OH, as director of technical support.

Augustin, the former turf extension and water specialist at UF, will coordinate technical training of LESCO employees, work with university researchers on new LESCO products and trials. Augustin will also have a major role in the educational seminars presented by LESCO.

Augustin received his bachelor's degree in plant science from the University of Delaware. He received his master's degree in turfgrass seed production from the University of Idaho and his Ph.D. in turfgrass physiology from the Ohio State University.

A member of the American Society of Agronomy and the American Society for Horticulture Sciences, Augustin includes woodworking and fishing among his hobbies.

Augustin, his wife Maria, and their daughter, Alicia, will be moving to the Cleveland area. ■



LESCO EQUIPMENT UPDATE

LESCO salesmen are now taking orders for the new LESCO greensmower, available now for field tests and scheduled for full production in 1986.

The LESCO GREENSMOWER is designed for easy use and durability. The mower has hydraulic power steering for easier maneuvering with no cables, independent reel controls for multiple mowing patterns, reversible hydraulics to allow backlapping of individual units while operator remains on machine.

Center post steering is included on the LESCO GREENSMOWER for added safety and for ease in climbing on and off either side of the machine. Rocker foot pedals allow for raising and lowering of cutting units and automatic stopping and starting of reels.

The LESCO GREENSMOWER has an 18 horsepower, twin-cylinder, Kohler Magnum engine for added power and long life. The greensmower is designed for easy ser-

ving. There is access to valve spools without removing valve bank. The pump is designed for easy removal through use of "flex" coupling. Cutting units may be removed by pulling two pins plus a quick disconnect of motors with two bolts and splined shaft. The LESCO GREENSMOWER also has jacking pads on the frame for easier repairs. ■



DIAZINON ON THE WAY OUT

About four months ago the Environmental Protection Agency informed us of their concern about alleged unreasonable adverse effects of diazinon on birds (particularly waterfowl) when used on golf courses and sod farms and was considering a Special Review of those uses of the product. (A Special Review is initiated when the EPA feels a product poses a substantial question of risk to the health and safety of humans or the environment.)

On January 6, 1986, the Agency announced in a press release that it will conduct a Special Review of the uses of diazinon on golf courses and sod farms. At the same time, it *proposed cancellation* of all uses of diazinon on golf courses and sod farms. Usually, the Agency first conducts the Special Review and then determines what regulatory action, if any, should be proposed.

The Agency said in the announcement that it has received reports of approximately 60 bird kills (primarily of wild geese) in 18 states in which diazinon was either confirmed or strongly implicated as the primary cause. The Agency noted that in the large majority of cases it was not known if label directions were followed. Also, the announcement said available data indicate that diazinon does not pose a significant risk to humans or other species of wildlife.

We believe revisions in application directions would assure the safe use of diazinon without unreasonable adverse effects on birds. While in December the EPA approved label revisions we proposed to reduce potential hazards to birds, the Agency apparently has concluded that those revisions are not sufficient to mitigate the problem and issued the proposed cancellation.

Our research people and outside experts retained by CIBA-GEIGY are evaluating the data on which the EPA apparently based its proposed regulatory actions. They also are preparing a presentation of our own extensive data on diazinon to be made to the EPA's Scientific Advisory Panel. That presentation is scheduled for the Panel's April meeting.