BUILD YOUR PYTHIUM CONTROL PROGRAM ON A FIRM FOUNDATION. CHIPCO[®] ALIETTE[®].

DUCT NO.

ACTIVE INGREDIENT: Aluminum tris (O-ethyl phosphonate) INERT INGREDIENTS:

KEEP OUT OF REACH OF CHILDREN CAUTION STATEMENT OF PRACTICAL TREATMENT IF ON SKIN: Wash with plenty of soap and water. Get me attention if irritation persists

IN EYES: Rinse with plenty of water. Get medical attention in irritation persists. See Back Panel For Additional Precautionary Statements Reg. No. 359-706 Eat. No. 34154-FR-06 NET CONTENT



GP.

Only CHIPCO ALIETTE fungicide translocates throughout your turfgrass for total Pythium protection.

If you're like many golf course superintendents, you rotate fungicides to reduce the risk of disease resistance. But you still need a "foundation" product you can count on for effective, longlasting Pythium control. And the name of that product is CHIPCO ALIETTE fungicide.

Unlike other turf fungicides, CHIPCO ALIETTE fungicide features a unique two-way systemic action. Once applied to turf, its active ingredient translocates downward and upward throughout each grass plant. The result: total disease protection from top to bottom.

In addition, CHIPCO ALIETTE fungicide offers you 21 days of Pythium protection from a single application. Even in hot, humid weather, CHIPCO ALIETTE fungicide stops Pythium *before* it gets started.

Best of all, CHIPCO ALIETTE fungicide delivers long-lasting pythium prevention at a down-toearth price. In fact, CHIPCO ALIETTE fungicide is one of your best fungicide values based on cost per day of control.

This year, discover the fungicide that's in a class by itself. CHIPCO ALIETTE fungicide.

Rhone-Poulenc Ag Company, CHIPCO Department, P.O. Box 12014, Research Triangle Park, NC 27709.



PRHÔNE-POULENC AG COMPANY

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Circle No. 145 on Reader Inquiry Card



Deere's new 110G.

Green Machine's new Expand-It System 3510.

0.095-inch-diameter nylon line. Shaft length for the 240G is 55 inches; for the 260G, it's 59 inches.

Echo—Echo Inc has added a .105 line to its assortment of gas-powered string trimmers recommended for manual two-line heads only. Echo also offers .65, .80, .95, and .130 lines for its trimmers. The new .105 line is designed for moderately heavy cutting.

Echo has added an additional Uhandle kit to its line of trimmer accessories. The handle kit now makes it possible for any 1986 straight shaft SRM trimmer/brushcutter to be fitted with a U-handle. The U-handle fits all 1987 straight shaft SRM models plus the SRM-250E. The existing U-handle kit fits models SRM-200DA through SRM-300AE and SRM-200 through SRM-200CE.

The Echomatic trimmer head is now standard on all Echo string trim-



Echo's U-Handle kit.

Hoffco's JP260.

mer and brushcutter models. Lighterweight Flexishaft trimmer models have the regular single-line Echomatic trimmer head. Larger straight shaft models have the heavy-duty Echomatic trimmer head with dual line feed.

Green Machine—HMC, maker of the Green Machine line of outdoor power equipment has introduced a heavy-duty version of their Expand-It system. The new Model 3510 offers landscape professionals highpowered performance in a lightweight, compact system. The basic string trimmer package easily converts to commonly used landscaping tools: a string trimmer/brushcutter, edger, power blower, weeder/ cultivator and snow-thrower. All attach quickly to a single powerhead by adjusting two wing nuts.

The powerhead is an air-cooled 24.1 cc, two-cycle Green Machine en-

gine. Maximum horsepower is 1.2. The powerhead weighs 10 pounds.

The Panther Model 2840 String Trimmer/Brush Cutter was the first Expand-It System set of tools designed for landscapers and lawn service professionals. These are also interchangeable, easily attached to the single 24.1 cc, 1.3 hp power source using a single knob on the tool shaft.

The Panther series two-cycle gasoline engine (Model 2810) features solid state ignition, a recoil starter and a quiet-tone muffler with guard. The Model 2840 string trimmer/brush cutter combines the blower unit with a tool for those uses. The unit includes a 47.8-inch shaft and a standard debris and blade guard for safety.

Hoffco—Hoffco offers a number of trimmers for the commercial market. The Critter is a new trimmer with a 21.2 cc engine. It has solid state ignition and weighs 12 pounds. It features a monofilament tap-and-go head that automatically feeds new line without stopping.

The JP390XL is new for 1988. Its 30.5 cc two-cycle engine is geared for heavy use. The trimmer/brushcutter has a 57-inch shaft with a two-line monofilament head. A shoulder strap with warning banner, soft-sided gog-gles and fuel mix are also included.

Also new for 1988 is the JP260 which has a 21.2 cc engine and also has a 57-inch shaft. The JP260 also has a tap-and-go head with a steel debris shield.

Homelite—Homelite offers six straight shaft model trimmers and four curved shaft models plus a number of accessories. All seven ST models have 25 cc engines. The three HK models range from 18.4 cc to 33.3 cc. Weight ranges from the light weight ST-155 and ST-175 at 9³/4 pounds to the HK-33 at 18³/4 pounds. Translucent fuel tanks clearly show fuel level.

continued on page 54

Put money in your pocket with the LESCO Aerator-30.

Aerate lawn after lawn in a single day with the LESCO Aerator-30 and start reaping the benefits of this profitable add-on to your lawn service business.

Engineered and built for continuous use, the LESCO Aerator-30 is a durable, low maintenance machine easy to maneuver, economical to operate and efficient to use.

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The LESCO Aerator-30 features a five-horsepower Briggs & Stratton I/C^{\otimes} recoil-start engine for long life and reliable operation.

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TRIMMERS from page 52



Homelite's gas-powered ST-485.



Paramount's five new electric trimmers.

The company also offers five electric power trimmers. All have automatic line feed and fully adjustable hand grips. Cutting swaths range from 10 to 16 inches.

Jacobsen—Jacobsen offers two models, the J-24 and J-33 string trimmers. The J-24 features a 24.1 cc engine, the J-33 a 33.3 cc engine. A shaftmounted throttle trigger allows greater control of engine speed on both models. A tool kit is included with both models.

Lesco—Lesco offers two new string trimmers for the commercial market. Both feature two-cycle Fuji engines, the 30.5 cc 009500 and the 15.4 cc 009100. The 009500 has a 57-inch straight shaft with a two-line head and 15-foot spool. It weighs 14 pounds. The 009100 has a 48-inch curved shaft with a monofilament head with automatic feed and a 40-foot spool. It weighs 11.5 pounds. Lesco also offers universal replacement trimmer heads and line.

Maruyama—Maruyama offers a full line of string brushcutter/trimmers ranging from 18.4 cc to 40.2 cc featuring Kawasaki engines and Maruyama-manufactured Mitsubishi en-



Maruyama's complete trimmer line.

gines. The brushcutters have been tested by the Japanese government to be the lowest in the market in vibration and noise, according to the company.

All Maruyama brushcutters feature electronic ignitions and diaphragm carburetors. All straightshaft models have five rubber-encased brass bushings which eliminate shaft flex and vibration.

Paramount—Paramount recently introduced five new electric trimmers to its existing line. The trimmers range in cutting width from seven inches to 16 inches. Two other new models feature the motor in the handle for easier control.

Weed Eater—Poulan/Weed Eater has an extensive line of lawn and garden trimmers. The electric trimmer product line includes: Weed Eater 1208, 1210, 1212, 1214 and 1216. Gasoline-powered trimmers include: XR 20T, XR 50A, XR 80A, the new XR 125 trimmer/brushcutter, XR 200 trimmer/brushcutter, 1400T, 1600T, 1700A and the 1720A trimmer with blade kit.

Yard Pro trimmers carry a variety of upgraded amenities. New gasoline



models, the 115 and 145, have been added for 1987-88, as has a new electric model, the Yard Pro 16. Existing gasoline-powered models include: the Yard Pro 120A, 130A 160 and the 200.

The company also offers replacement parts ranging from nylon line to blade kits and fuel caps.

Shindaiwa—Shindaiwa's T-20 trimmer features a 21.1 cc two-cycle engine and generates 1.1 hp, while weighing less than 10 pounds.

Shindaiwa also introduced two new nylon heads for its grass trimmers. The Japanese manufacturer also offers a complete range of professional trimmers and brushcutters.

The Bump-and-Cut head offers semi-automatic line indexing. Replacement line is easy to install. The compact Midget head features a quick-feed manual design for line indexing, which allows the user to advance line without loosening the arbor bolt.

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Consistent 38% nitrogen

Nitrogen released slowly for sustained turf feeding during active growth periods

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The Snapper 210SS.

Snapper—Snapper's Model 240SS commercial trimmer features a 24.1 cc, two-cycle engine with a die cast steel connecting rod, chrome-plated cylinder, diaphragm carburetor and a 20-ounce fuel tank. The drive shaft is solid steel with five rubber-mounted bushings.

The rotatable gear head adjusts for slopes and allows the use of an optional edger attachment. The twinline manual feed head is also standard. Other options available are a heavy duty steel shield, eight- and 80tooth blades, a brush and sapling kit and bullhorn handles.

Solo-Solo Inc. recently entered



Solo's S-30SB trimmer/brushcutter.

the competitive string trimmer market by introducing five gas-powered models with a new 25 cc two-cycle engine designed and built for powerful and long-lasting performance.

The new trimmers include three curved and two straight-shaft models and feature a forged high alloy steel crankshaft for durability, ball bearings on the crankshaft to assure longer engine life and smoother performance, a special carburetor priming system and solid state electronic ignition. Each unit has fingertip controls,

The Tanaka Auto-Start 7000.

cushion-grip upper handle and a new "Tap-Vance" string advancing system with .080 monfilament line. Curved drive-shaft models are the: S-15CT with a 15-inch cutting swath, the S-17CT with a 17-inch cutting swath and dual line head, and the heavier S-25CB with an 18-inch cutting swath. The straight shaft units are the: S-20ST and S-30SB, both with a metal debris shield, 18-inch cutting swath and dual line heads.

Tanaka—Tanaka's Auto-Start 7000 gas-powered trimmer starts by turning the switch to on and pressing the start button. The 13-pound unit generates 1.1 hp and has rubbercushioned handles. LM



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"The Pro's son triggered the sprinklers during today's tournament. My brother wants me to co-sign a loan. And I just found out both my kids need braces. But what really concerns me is Pythium."

There's one sure way to avoid worrying about Pythium.Use Subdue* fungicide. Subdue stops Pythium on contact. And once absorbed by grass roots, Subdue protects your turf against further attack for up to three weeks. So don't let Pythium get you down. Get Subdue. Because you've got other things to worry about. CIBA-GEIGY



Trying to keep up with our traction advantages is wearing the other guys out

hers try. But most traction-assist systems just don't cut it. Not when compared to a John Deere front mower.

In fact, components on other mowers actually wear out faster simply trying to do what John Deere's differential lock and hydraulic weight transfer systems do so easily.

NO BOUNCING DECK

Springs are the key components in many weight transfer systems.



But, if you've ever seen a kid on a rocking horse you know what springs do. Thev bounce.

One knob hydraulically transfers weight from the mower deck to the drive wheels on John Deere's F930, F932, and F935.

That's also what happens when you put springs on a mower deck. A side effect that's damaging to both deck components and quality of cut. John Deere's weight transfer system is better. Here, your mower

Trying to match the traction advantages of John Deere front mowers is hard on other machines.

deck doesn't bounce because there are no springs. Weight is hydraulically transferred to the drive wheels by simply turning a knob on the right console.

You get better traction without sacrificing mowing quality. Best of all, it's all done on the move so you're always in control of changing conditions.

NO WORN-OUT BRAKES

A standard differential lock is the second major part of the system. Here, a touch of a pedal is all it takes to lock both drive wheels on the move. So, if one wheel slips, the other can still pull you through. It's not a brake. There are no

drums to heat up or wear out. It's a straight linkage in the axle that allows both wheels to turn at the

Nothing Runs Like a Deere



same speed. A much more positive way to get through tough footing than what the

need it?

others would have you do-ride your traction

assist brake. Why not save that for when you really

NO LOST MOMENTUM

All told, you get a tremendous traction advantage with John Deere. The ability to use the differential lock and hydraulic weight transfer on the move means you work better on steep slopes, sidehills, and slick ground without losing valuable momentum.



A touch of a pedal locks both drive wheels on John Deere front mowers to help get you through difficult conditions.

Talk to your John Deere dealer today for more information on these superior machines.

Or write John Deere, Dept. 956, Moline, IL 61265.





WARM-SEASON INSECT CONTROL GUIDE

New in insect control: the spittlebug, high-pressure injection systems and biotechnology. The following guide offers old stand-by cures and new advances in insect control.

by Patricia Cobb, Ph.D., Auburn University



The flight of the adult green June beetle usually peaks in late May or June.

nsect damage continues to limit production and maintenance of quality turf in many areas of the southern United States.

Insect pests offer southern turf managers a variety of challenges. Soil insects such as mole crickets, fire ants and some grub species expand their range each year. Estimated costs to control mole crickets on some Georgia golf course turf are up to \$1,000 a hole during the 1986-87 season.

Fire ant control cost estimates in Alabama (including turf and other areas) exceeded \$5 million last year. The last two summers' droughts in many areas, excess rainfall in others, coupled with high temperatures, complicated control efforts.

Cultural measures and insecticidal

treatments can be timed to maximize the control of pest populations. Availability of alternative insecticide controls remains low, but new technology and research offers hope for more effectively using insecticides. Research continues for insect-resistant turf varieties and effective biological control agents.

New technology

High-pressure injection systems are not new. Injecting insecticides into turf at 300-650 psi has resulted in limited success and even failure in areas of the South where soils are rich in organic matter or contain a high percentage of clay.

Cross Equipment Company of Albany, Ga. has developed high-pressure systems which inject insecticides at 1500-2000 psi as nozzles move across the top of the turf. Chlorpyrifos (Dursban) and diazinon give poor to fair control of mole crickets when conventional treatments (including post-treatment irrigation) are applied.

However, in recent tests with the new high-pressure injection, both insecticides have given excellent residual control of mole cricket damage. Another advantage of this system is reduced surface residue of insecticides. Preliminary tests for billbug and white grub control with this system also look promising.

Other new tools

Derived from a soil bacterium, abamectin is a new and different type of insecticide. Merck registered this product in 1987 as Affirm Fire Ant Bait. Affirm destroys fire ant colonies by disrupting reproductive potential. However, Affirm works slowly and worker ants may be present in estab-

Derived from a soil bacterium, abamectin is a new and different type of insecticide.

lished colonies for six weeks or more.

Triumph 4EC (Ciba-Geigy) registered for restricted use by lawn care professionals, gives lawn managers an excellent new tool for grub control in many areas of the South. However, current labeling prohibits application