

# relief with Ronstar® G.

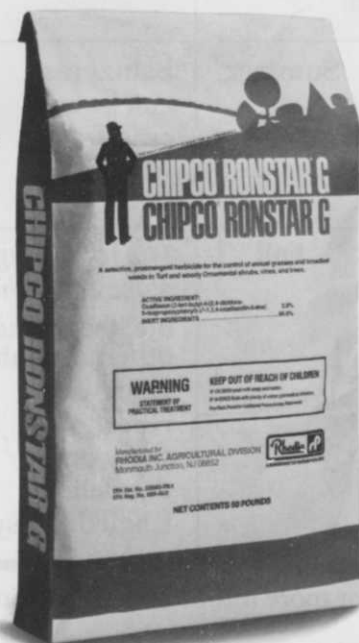
annual grasses and broadleaf  
just one application.

Apply Ronstar G on bluegrass or bermudagrass turf early in the season, when your maintenance schedule is light. Its long residual will control weeds for up to 4 months without repeated applications.

No other preemergent herbicide can be put to work as early or continue working as long as Ronstar G.

Ronstar G controls a broad spectrum of annual grass and broadleaf weeds. It can be applied easily and evenly for good distribution - another time saver.

Ronstar G is only one part of a complete, all season weed control program you can get from the Chipco line. See your supplier or Rhodia representative for more information.







Please read the label carefully and use only as directed.

RHODIA INC. AGRICULTURAL DIVISION  
Monmouth Junction, New Jersey 08852

**Rhodia**   
A SUBSIDIARY OF RHONE-POULENC

# The whole in one.

Now with new preemergent Chipco® Ronstar® G, Rhodia can give your golf course a complete, all-season weed control program.

TIMING	WEEDS TO BE CONTROLLED			HERBICIDE
Early Spring	crabgrass carpetweed Florida pusley	goosegrass oxalis pigweed	poa annua stinging nettle	 Chipco Ronstar G
Spring	<i>The following weeds can be controlled with one or more of the herbicides listed on the right:</i> buckhorn and other plantains chickweed clover curly dock			 Chipco Turf Kleen Chipco Turf Herbicide MCPP Chipco Turf Herbicide "D"
Summer	bahiagrass chickweed crabgrass	dallisgrass nutsedge	sandbur wood sorrel	 Chipco Crab Kleen
Fall	<i>The following weeds can be controlled with one or more of the herbicides listed on the right:</i> buckhorn and other plantains chickweed clover curly dock dandelion English daisy			 Turf Kleen Chipco Turf Herbicide "D" Chipco® Buctril® Chipco Turf Herbicide MCPP

For more information regarding the Chipco line, consult your distributor or Rhodia representative.

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## FOREST CITY

We seem to have a routine of birch sprays. We sprayed twice for them. And hollies. And we have a routine of spraying all we can with dormant oil. I like to get the aphid eggs and scale insects and those things. I think that's one of the better sprays and we encourage the people to do that.

They had an idea of using lady bugs from California on the cottony maple scale. Its true, lady bugs do eat scale, but from what I understand, from some of the experts, the variety that they shipped up here wouldn't do any good, especially the first year. What you should do is spray and release the proper type of lady bug the second year. Then they'll begin to eat the scale. The first time you get them here they go into hibernation. Another problem with that is that the people want to spray too soon. You don't spray the egg masses. You spray around the first of July or thereabouts when the eggs hatch out.

We use a lot of different chemicals during the growing season. We have used quite a bit of Benlate for fungus problems. We do some injecting with Lignasan. We use Prath chemicals quite a bit. We use Zygon and some of the other fungicides. We use specifics for each problem. We keep a large inventory of chemicals.

*Do you keep a large inventory of chemicals?*

We purchase large quantities of chemicals because we also sell them. We have not purchased our Methoxychlor yet for this year, but we purchase quite a few gallons of that, enough to carry us through the whole season. The main portion of it will be used in the spring dormant season. We will have enough left to do spraying at half strength in the summer. We also put on a dormant spray in the fall. We try to buy our material for the whole season.

An estimate of the total cost of our chemical use is hard to say. In checking our inventory before I left I found about \$20,000 worth of chemicals. Some of those will be sold though. We are using more expensive chemicals now. It used to be you could figure the chemical end of it was a relatively small cost and it was mostly labor and equipment. Now Methoxychlor costs around \$6, give or take a dollar, a gallon. For example, if you use a one-to-one ration



**A high pressure hydraulic spray rig can cover the taller trees.**

CONTRACT APPLICATION  
FOREST CITY

# The Standard.



Net Weight 10 pounds	No. 9106
Active Ingredients	0.75% w/w
Cypflufenic acid	36.00% w/w
1-(2-(2,5-dimethyl-2-oxopropoxy)-2-hydroxyethyl)guanidine	34.25% w/w
Inert Ingredients	100.00% w/w

**TUCO**

## Acti-dione<sup>®</sup> Thiram

**Broad spectrum  
Turf fungicide**

**For Use On:** Bentgrass, Bermudagrass, Bluegrass, Fescue, Ryegrass, and St. Augustinegrass

**For the Prevention and Control of:** Dollarspot, Fading-out, Gray Leafspot, Helminthosporium Leafspot, Large Brown Patch, Melting-Out, Pink Patch, Powdery Mildew, Rust, and Snow Mold.

**WARNING!**  
HARMFUL OR FATAL IF SWALLOWED. KEEP OUT OF REACH OF CHILDREN.  
See other warnings on back panel.

9-908-1 Net Weight 15 oz

## AN ANTIBIOTIC FUNGICIDE

# ACTI-DIONE T

**GENERAL INFORMATION**  
Read all label directions, precautions, and conditions of use. Acti-dione TGF, Acti-dione TGF is an antibiotic fungicide for the prevention and control of certain fungal diseases on ornamental and nursery plantings.

**WARNING!** Keep out of reach of children.  
Harmful or fatal if swallowed. May be irritating if inhaled. Avoid contact with skin, eyes, or clothing. Do not breathe dust or spraying. Wash thoroughly after handling. Do not contaminate feed and foodstuffs. Do not use on pastures or graze treated areas. Do not use on lawns. Do not reuse container. Destroy when empty. This product is toxic to fish and wildlife. Birds fed where used is likely to occur. Do not contaminate water, equipment, or disposal of wastes. Do not apply in conditions favor drift from areas treated. Apply this product as directed on this label.

**ACTI-DIONE External**  
In case of contact, immediately flush eyes with plenty of water. Wash skin immediately with soap and water.

**ACTI-DIONE Internal**  
If swallowed, induce vomiting immediately by sticking your finger into the back of the throat. Do not induce vomiting if the person is unconscious. Call a physician. Never give anything by mouth to an unconscious person.

See Section of Container for "Lot Number" and "Date of Manufacture"

**TUCO** DIVISION OF THE UPJOHN COMPANY  
KALAMAZOO, MICHIGAN 49001

Established by years of consistent performance.



Stop turf-damaging insects with the proven insecticide—**PROXOL® 80 SP.**

When you're responsible for turf playability season in and season out, you want management techniques and turf health products you can rely on. You want consistent performance. And that's why you should rely on Acti-dione® turf fungicides. They're a standard in the business. They have been for more than 20 years. And today there's still no evidence of fungus resistance.

In the spring, start your four-season spray program early before leafspot, dollarspot, or melting-out get started. Use Acti-dione TGF® or Acti-dione RZ®, alone or in combination. Both products are easy to use, economical, and attack fungi without killing bacteria that are helpful to grass.

As the weather turns warmer in the late spring, continue spraying tees, greens and fairways with Acti-dione TGF. Where brown patch is a problem, use Acti-dione® Thiram. Both products control the major hot weather diseases like dollarspot, melting-out, fading-out, leafspot, rust and powdery mildew.

You know how your tees, greens, and fairways look is a reflection of the care you give them. So give them the very best. Use Acti-dione turf fungicides. They're the standard.



Division of The Upjohn Company

Circle 147 on free information card

**FOREST CITY**

in your mist blower in the dormant season, you have a high cost. The same with your hydraulic, if you use eight gallons and the cost is \$6 per gallon, that is close to \$50, or 50¢ a gallon for every gallon of spray you put out. If you spray a tree that takes a 100 gallons you have put on \$50 worth of material.

*How large is your staff?*

I am the principal salesman. I don't have any other salesman or supervisors but we have crews. Last year we had six licensed spray operators. Every one that does the work does not have to be licensed, but we felt it wise to have as many as possible licensed.

*Do you advertise?*

We have been in business for years and we get a lot of business from recommendations. Also through the phone book. We then make our call to discuss what the needs are, survey the customer's property and advise them.

We mail a freight letter to our customers. We mail out a couple thousand. Some go to customers who were new during the year. They go on our general customer list and we send them our spray recommendations, along with a card they can check off. They may decide that they need other services that we haven't done before. In addition, we have regular spray customers who have been doing business with us for a number of years. We send them a confirmation letter telling them what we are going to be doing this year and what the price will be. If they wish to pay in advance, they can do that and get a discount. Those are routine customers. We have probably 300 or 400. We have our customers pretty well lined up. We also get calls over the phone for estimates. I think most of our business comes from established companies through recommendations.

Our total spray customers during a year's time is roughly 800, but some of those have one spray, some have numerous sprays.

*How do you bill your customers?*

I never ask for a deposit. We take the customer on faith. I don't check their credit, though if I had my doubts I might. Most of the custom-



**Tree protection begins with proper planting of a healthy specimen.**

ers that have spraying done are homeowners. You see what kind of set up they have, and if they want us to spray their trees, they are probably going to pay for it. We send a bill. When the work is done, we leave a notice. We bill for each spray as we go along. I don't demand cash in advance. We do send out our letter at this time of year, and we give a 10% discount if they pay by March 10.

*What do you feel is in the future for your company?*

Tree spraying is a highly trained field, and I think you have to be very careful in the materials you use. You have to be up to date and study the problems more than you used to, because you can't just go out and spray trees. You have to use approved chemicals, and they will become more and more limited. You can't just pick one of a whole lot of chemicals, you have to limit yourself to what is approved and what is labeled for that particular problem. That means you have to study a lot more, attend seminars, and educational sessions. You have to know what to use, there is no question about that. I thought 10 years ago that spraying would be diminishing and falling down, and in a lot of cases it has increased. Mainly because you still have the problems. They don't go away. Business has increased be-

cause it requires more effort. Maybe there are less people that are competent to do it.

*What about competition?*

There is a lot of competition among tree sprayers in the Cleveland area. There are quite a few companies. It depends on what type of spraying you are talking about, because you need different equipment to spray trees, tall trees that is, than you need to spray evergreens or bushes. I think a lot of the landscapers do turf spraying, and probably small evergreens, things like that, even though that is a different field than turf spraying. But they have to be licensed and know what they are doing. Some of those people are just spraying and doing it quick because they do not have all the information. You have to abide by the labels. You just can't mix up chemicals and go out and spray all types of evergreens.

There is a safe way of handling the pesticides. I am not an advocate of spraying everything that has a disease. A lot of times it is too late for spraying. A lot of times proper horticultural methods would solve the problem without spraying. I am not saying that spraying is needed at some time or another, because it is if there is a problem that has to be taken care of. We find we are still quite busy with spraying.

# RAILROAD WEED CONTROL RIGHTS-OF-WAY CONTRACT APPLICATION

The following is excerpted from an interview with John B. Roy, president of Railroad Weed Control, Inc. with offices in Westfield, Mass., and Westerville, Ohio. Roy is currently chairman of the Public Relations Committee for the Northeastern Weed Science Society.

Railroad Weed Control, Inc. operates in a 23 state area east of the Mississippi River

*How much equipment do you maintain?*

Railroad Weed Control has 20 spray trucks. These are hi-rail trucks that spray weeds and brush along the tracks. In addition, we have four railway spray cars with which we form spray trains, using tank cars and chemical mixes. Our hi-rail trucks range in cost from \$35-45,000 apiece. We try to maintain them for six years before the depreciation value becomes too great.

*What types of chemicals do you primarily use?*

We use chemicals from all the major suppliers. Our soil sterilants are from DuPont, CIBA-GEIGY, and Elanco. We use contact killers out of Vineland or Crystal Chemical and we use phenoxy herbicides for weed, brush and grass control out of DOW, Amchem and Velsicol. We use combinations of products in our mixes and we also use straight soil sterilants.

Spraying a railroad is a three-fold operation. A yard program is

**A long stretch of railroad rights-of-way can be sprayed utilizing a railroad spray car and a train of tankers.**



## **RAILROAD WEED CONTROL**

primarily soil sterilants. The line-road program for weed and grass control is a combination of products, normally three: a soil sterilant, a contact weed killer and a systemic herbicide. Then, we use a phenoxy type herbicide for brush control.

*How large of a staff do you maintain and what are the members primary functions?*

We have approximately 15 full time people. Besides sales management, we also have supervisory people that handle the actual operations in the field.

We generally have one or two man crews on our trucks. Our preemergent program is all one man crews and our line and road program and brush program are all two man crews, sometimes three.

*Do you actively seek spraying jobs?*

We pretty much work with the railroad. We help the railroad program their vegetation control needs. Our suppliers, or major manufacturers of the products, make recommendations. Then we sit down with the railroad and try to work out a program that will meet their budget.

Because of our years of experience, eighteen now, we know pretty much who the railroads are, what they do, and what kind of programs they've had.

*How do you estimate what a job will cost?*

It depends upon the acreage the railroad plans to treat per mile, the seriousness of the problem, and how much chemical is going to be re-

**A clean railroad yard promotes safety and efficiency.**







**Hi-rail trucks, ready to roll.**

quired to eliminate or control that problem. We base it on how long the job is going to take, what it is going to cost, and where we have to go to do the job.

We're very specialized. We only do vegetation control, weed, grass, and brush, on railroads with our equipment.

*How do you bill the railroads?*

We normally bill on completion of each phase of the program. If a railroad has the yard program, it usually starts before the weeds start to emerge. When weeds and grass grow, we bill it upon completion of that program. If we have a large contract, we might bill weekly, on a production basis.

Line and road programs usually begin the middle of June and continue only into July. We do that in the same manner. It's billed by division, or region, each phase of the program. We handle brush control the same way.

*When do you usually purchase chemicals? Do you keep large inventories?*

We try to keep our inventories as low as possible, especially during

the slow times of year, normally October through the first of March. Then we get the materials we need and bring it in as required.

*What do you see in the future for Railroad Weed Control, Inc.?*

We're trying to do more business with the railroads we're presently working with. In other words, a lot of these railroads don't have their budgets where they should be to take care of the problems with the railroad. The key is to have railroads do more weed and brush control.

*Are there other problems particular to railroad weed control?*

The Department of Transportation insists that railroads have a good visibility and safe operating conditions. Vegetation control is very important in that respect.

*Is there much competition in this aspect of weed control?*

There's a lot of competition in this area. There's probably seven major people in this business in the country. There's a number of smaller applicators.



**DOT insists that railroads have good visibility and safe operating conditions.**

## A CONSULTANT CAN PROVIDE TECHNOLOGY

By Arnold H. Webster

His view point is un-arguable: "You have to know what you're working with before you can treat it." With this attitude Dr. W. D. Thomas, researcher, forest pathologist and consulting arborist holds an amiable and steady hand on "Forest-Ag Environmental Protection Service," his consulting and research firm in Lafayette, California. Seldom does he diagnose without a confirming isolation in his laboratory. That's why a property-owning customer can be confident that the guess work is taken out of diagnoses Thomas makes.

Other professional arborists and pest control operators consult with him (400-500 samples per year are run through the lab) and are given a written report to take to clients. This "strictly business" professional attitude, backed by thorough investigation before diagnosis, is almost like insurance for clients. They can show their customers they are backed by a resource firm with laboratory facilities.

"When we run into questions we can't answer, we tell our client so," says Thomas with the disarming frankness you immediately feel is one of the reasons people have confidence in him. "We check the situation with whatever tools we need — light meter, moisture meter, Shigometer — and take samples to test in the lab. If all this makes us pretty sure we have something new to the area, we report that to our client."

Sometimes the "unknown" furnishes an excellent opportunity for testing new materials. Almost always the home owner is glad to cooperate in learning what treatment can be made. By using their trees as test trees, and observing nearby untreated trees as checks, Forest-Ag can have nearly laboratory conditions for research. This

kind of work done "in the real world" is definitely the sort to inspire confidence in the home owner's mind.

Steady clients receive a newsletter that tells them of new items in research (they get a kick out of realizing they're in the know on new things) and what problems they might be looking for concerning trees, plants, lawns in the coming season. They also receive research releases reporting current results of research, and information leaflets describing pests being encountered locally.

With a wildlife biologist on the staff, coupled with associates in hydrology, engineering, geology, entomology, and remote sensing, Forest-Ag reaches far — from environmental studies for public agencies to assisting home owners to renovate their landscapes.

Tree appraisals are becoming more demanding each year as clients are encroached upon by growing population pressures. An increasing amount of time required in court as expert witness often puts severe strain on research efforts.

Preventive maintenance of private properties remains the main thrust of Forest-Ag's efforts, but there is continuing and conscious effort to budget time allowing fifty percent for research — for commercial clients and in-house. Thomas feels that in-house research is necessary to develop information and techniques which will make possible better and unique service to clients.

Such in-house projects as climatological correlation of pest outbreaks for developing forecasting services, studies on the relations of rodent feeding and transmission of shade tree root diseases, biological agents for tree wound dressing, and the practical use of mycorrhizal

fungi to suppress soil-borne diseases offer exciting breakthroughs in pest management.

He's working with an earthworm grower who sells the earthworm castings for fertilizer. Forest-Ag not only runs the tests to show the analysis of the castings, but studies the relationship of earthworms to the transmission of disease, thus performing two services at one time. Thomas' firm is unique in this way and unique in being one of few (so far as he knows) practicing forest pathologists.

"There are more trees growing in the U.S. now than when the Pilgrims came over," asserts Thomas. "And I'll bet you're going to ask me next why we have so much more trouble with trees than we used to?" "Well, there are, first, more trees. Second, they're growing under stress conditions from the day they are planted. Most trees are not native to where they are being grown. Indeed, they are 'exotic', and so have continual survival problems. It's only natural for trees to have more things happen to them under these conditions."

"That's why," he observes, "I encourage young people to become plant clinicians; partly because of our nation's increasing horticultural awareness, and because there is the obvious real need for people trained as plant pathologists, plant physiologists and arboriculturists. We greatly need more talented young people in forestry and horticulture."

"At the same time I advise such young people to not neglect learning about people, and how to express themselves while pursuing technical subjects. If the practicing specialist can't communicate with a client, the battle for 'green survival' could be lost." **WTT**