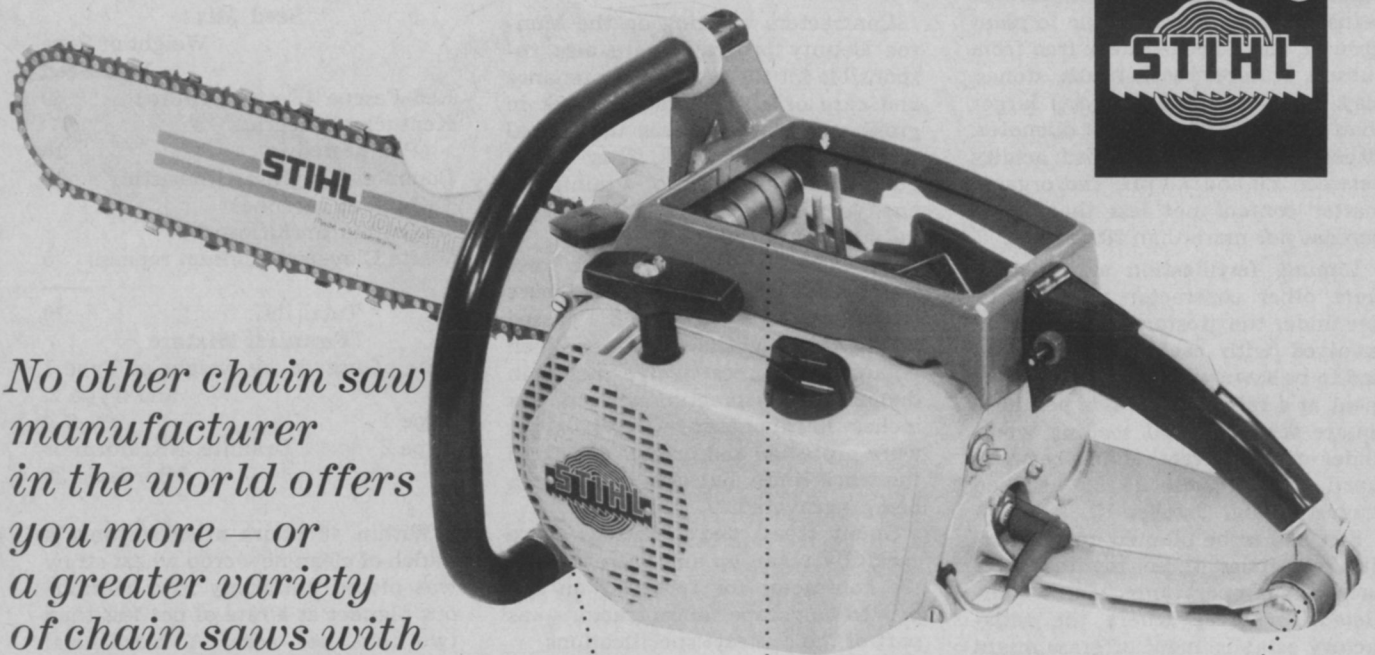


*When you want accurate facts
about anti-vibration systems &
about eliminating vibration in chain saws...*

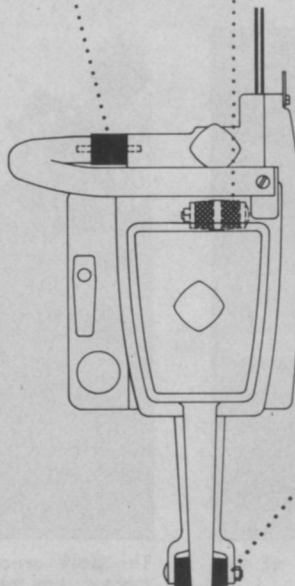
*Ask the people who gave it to you
first and who know it best! **STIHL!***



*No other chain saw
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in the world offers
you more — or
a greater variety
of chain saws with
AV anti-vibration systems.*

STIHL was the first chain saw company in the world to introduce and manufacture an AV anti-vibration system on their saws — as far back as 1964 — and it has proven so reliable and popular with professional cutters, that we have had to make the AV system available in just about every saw in our line.

Our exclusive and patented AV anti-vibration system (as shown) consists of strategically positioned rubber shock absorbers mounted in the handles and body



of the saw. They serve to practically eliminate vibrations from chain and engine and let you cut longer, with less effort and fatigue, and without unnecessary discomfort to your hands, arms and back.

STIHL American, Inc.

107 Bauer Drive, Oakland, N.J. 07436,
Area Code 201-337-0211

\$400 MILLION FOR WATER

(from page 15)

bilities on the Monroe County Pure Waters project and grass and planted areas are no exception. All work in connection with the restoration of grass and planted areas had to be performed by an experienced landscape subcontractor, engaged and paid for by the contractor.

Topsoil is required to be used for the top six inches of backfill of trenches and excavations in grass and planted areas unless otherwise required by particular easement agreements. Topsoil must be approved topsoil obtained from excavation operations, or imported by the contractor at his expense.

The contract said that imported topsoil could contain no mixture of refuse or any material toxic to plant growth, and be reasonably free from subsoil, stumps, roots, brush, stones, clay lumps or similar objects larger than two inches in greatest diameter. Other specifications included: acidity between 5.0 and 7.0 pH; and organic matter content not less than three percent nor more than 20 percent.

Liming, fertilization and seeding were other contractor responsibilities under the "restoration" program involved with each contract. Seed had to be sown with approved equipment at a rate of 5-pounds per 1,000 square feet, with all seeding work, under the contract, done between April 15 and June 15 or between August 20 and October 15.

Sod had to be planted on residential properties three months after backfilling operations were completed. In areas where the satisfactory establishment of grass might be difficult due to steep slopes,

drainage flows, etc., the Engineer could order sod be planted.

Plantings and shrubs that couldn't be protected in their original locations had to be removed by careful excavation and balling the roots in burlap. Plants and shrubs were required to be stored in protected areas and given ample water to keep them in a thriving condition. As soon as possible after construction operations moved ahead, the plantings and shrubs were to be set back in their original location.

SAME AS BEFORE

The contractors were also obligated to replace with the same species and size any plantings and shrubs that fail to survive the moving operation during the guaranteed period.

Contractors working on the Monroe County program were also responsible for the proper maintenance and care of all restoration work in grass and planted areas until final acceptance of the work. They had to guarantee their work for a minimum one year period from the date of initial acceptance.

Permission to trim or remove trees was needed in unpaved areas where trenching or excavation passed through residential sections. When obtained, all trees twelve inches in diameter — sometimes even six inches in diameter — and larger were protected and preserved within the work limits but outside the area being excavated.

Small trees, and plantings were carefully taken up and preserved by the contractor for reuse by an approved landscape subcontractor — as part of the contract specifications.

Topsoil, too, was removed and

stockpiled separately from other excavated materials, for reuse as part of the restoration.

Landscape contractors hired by contractors on the Monroe County Pure Waters Project followed the restoration "specifications" as outlined by the Division of Pure Waters, for seeding, mulching, sodding and other activities.

For example, except in open farm areas under cultivation, all disturbed open and wooded areas, on slopes of less than one vertical to four horizontal, were treated with a mixture of fertilizer and seed using the Hydro-Seeder of the Finn Equipment Company, or other approved equipment. Seed had to be sown at the rate of 70 pounds per acre, with fertilizer being applied at the rate of 800 pounds per acre.

Seed Mix

	Weight of Pure Live Seed
Red Fescue (<i>Festuca rubra</i>)	40
Kentucky Bluegrass (<i>Poa pratensis</i>)	10
Common Ryegrass (Domestic) (<i>Lolium perenne</i>)	15
(<i>Lolium multiflorum</i>)	
White Clover (<i>Trifolium repens</i>)	5
Total lbs.:	70

Fertilizer Mixture

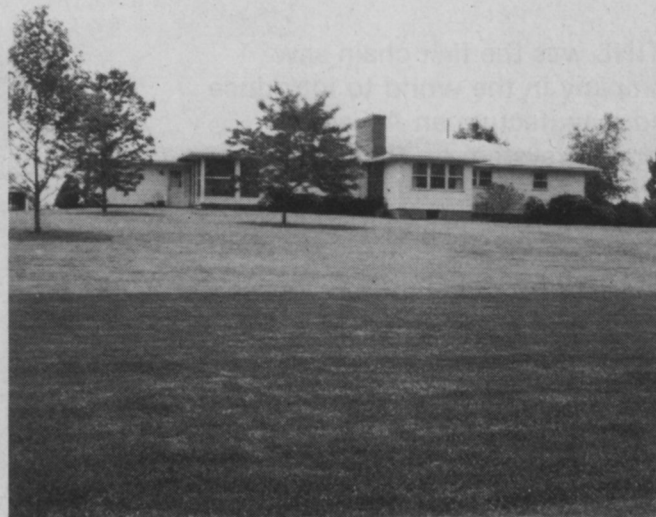
Rate of use: ½ by weight of Type 1 and Type 2	
Type 1	10-6-4
Type 2	Uramite, Nitroform or Borden's 38

Within 48 hours after seeding, a mulch of clean new crop wheat straw was placed uniformly in a continuous blanket at a rate of not less than two tons per acre. A mechanical

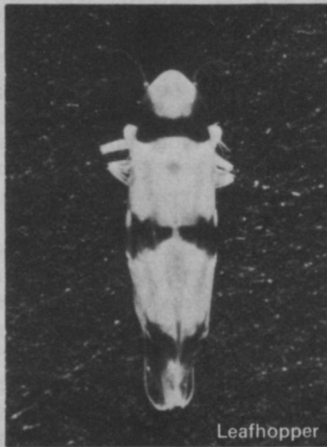
(continued on page 24)



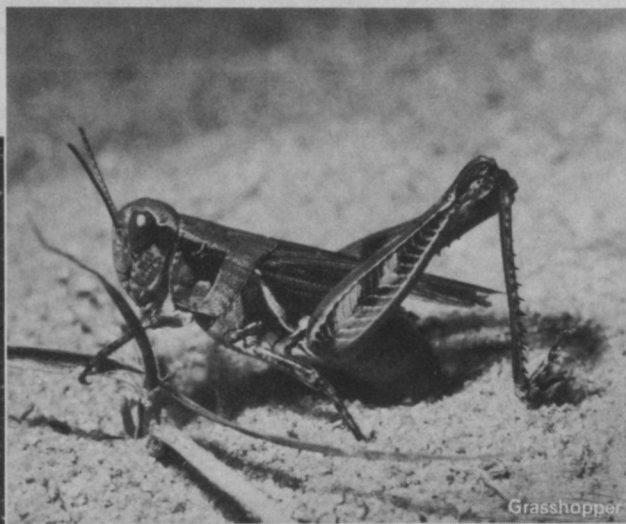
This tree was planted on private property as part of the restoration program.



The dark area in front shows where sod was placed. Contractor was responsible for restoration.



Leafhopper



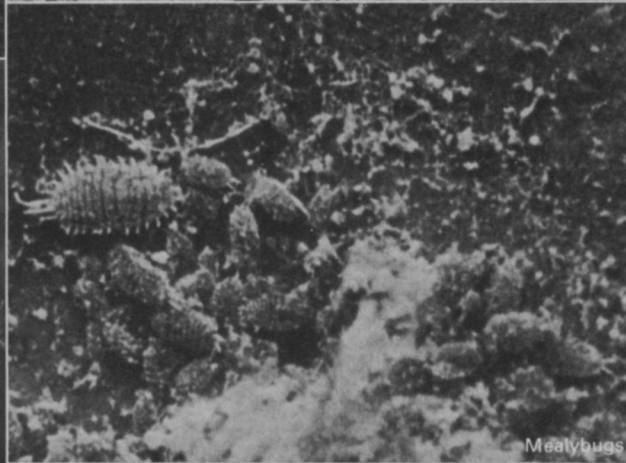
Grasshopper



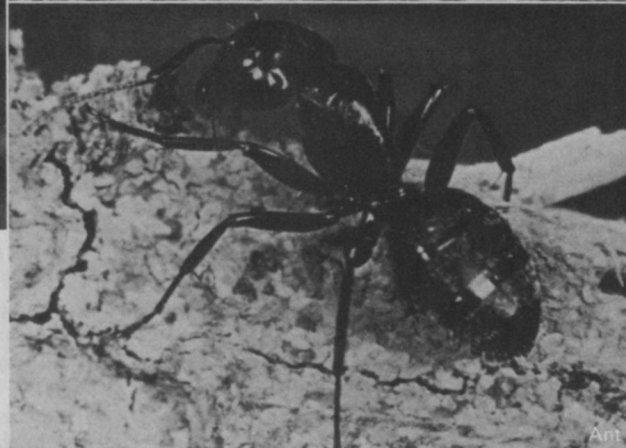
Hairy chinch bug



Cutworm



Mealybugs



Ant



Bagworms

Ag-Organics Department, Midland, Michigan 48640

These are only seven of the turf and ornamental pests Dursban controls.

If we had more space, we could show you another seven. Like sod webworms, brown dog ticks, earwigs and *Hyperodes* weevils in turf. Or ornamental plant pests like mites, spittlebugs, exposed thrips, white flies and many more. But our point is, DURSBAN* insecticide is the choice of professional lawn spraymen when they need to get the job done. DURSBAN insecticide is effective on a wide variety of insects—including resistant strains. And it's effective in a wide variety of applications. It's economical because a little goes a long way. It's non-phytotoxic, and it is biodegradable. So, if you haven't tried it yet, it's about time you did. Just remember to read the directions for use and follow the precautions for safe handling on the product label.

*Trademark of The Dow Chemical Company



DOW CHEMICAL U.S.A.

For More Details Circle (124) on Reply Card



This area was seded and covered with straw following placement of the sewer project. Contractors followed stander seeding specifications to restore site to the original state.

\$400 MILLION FOR WATER

(from page 22)

blower was sometimes used to apply mulch. However, the Division of Pure Waters would not allow machines which cut mulch into short pieces to be used.

In regards to liming, fertilizing and seeding for grass and planted areas torn up by the sewer project and replaced with topsoil, landscape contractors found that all areas to be seeded had to be disced or otherwise loosened to a depth of two-inches and raked to true lines, free of all unsightly variations.

Topsciled areas were rolled with lawn roller and all low spots leveled up. Based on a minimum of three representative soil samples, raw ground agricultural limestone was applied. Limestone was worked lightly into the top 2 inches of the soil. Commercial fertilizer, 10-6-4 was applied at the rate of 25 pounds per thousand square feet, again worked lightly into the top 2 inches of the soil.

Seed used for grass and planted areas was:

- | | Species |
|-----|---|
| 50% | Creeping Red Fescue
(Illahee Strain) |
| 30% | Kentucky Blue Grass |
| 10% | Redtop (Fancy re-cleaned) |
| 10% | English Perennial Rye |

A mulch of clean new crop wheat straw was placed uniformly in a continuous blanket to provide a cover of 3-inches, loose depth.

Any damage to existing stream or channel beds and banks and any distruptions to flow had to be repaired and restored. Rip-rap paving

on some creek crossings were constructed of durable field or quarry stone, each shaped as nearly as possible in the form of right rectangular prism. The stones had to be laid perpendicular to the rip-rap bed.

The length of a trench opened through most areas, including residential property, couldn't be longer than 3 structure-to-structure runs or 500 feet, whichever was less.

In regards to pavements torn up during the course of construction activity, contractors were required, as part of "restoration", to replace the pavement with the same quality, thickness, bearing capacity and surface finish.

Sidewalks being replaced by contractors had to extend to the nearest contraction joints or expansion joints, with all sidewalks provided with a minimum 6 inch base course of approved granular material. □

Wider Use Of White Amur Sought By Two Fla. Solons

Two Florida legislators say the time has come to stop testing an Oriental weed-eating fish in isolated ponds and start using it to help clear vegetation that's clogging state waterways.

Representatives Bill Fulford, Orlando, and William J. Rish, Port St. Joe, called for the release of the white amur — a fish from the icy waters of Siberia — after viewing the results this week of a University of Florida research project in Orange county.

The tests are being conducted by the UF's Institute of Food and Agri-

cultural Sciences in cooperation with the U. S. Department of Agriculture and the Florida Department of Natural Resources.

Fulford, who is chairman of the House resources committee, charged there has been too much "official foot-dragging" over when the fish should be released to control submersed hydrilla vegetation in lakes and waterways.

"Some biologists have expressed concern that the amur will get out of hand and end up being more of a nuisance than the waterweeds themselves. But research indicates the amur will control hydrilla without affecting desirable underwater plants like vallisneria (commonly called eelgrass)," he said.

Rish, accompanied by a group of commissioners from Bay county, said he wants the fish released in Deerpoint Lake near Panama City to control the rapid growth of hydrilla "which has just about ruined this lake for recreational purposes."

He said conventional mechanical control methods have been ineffective, and chemical controls will not control submersed weeds either. Even if chemical controls did the job, they can't be used because the 3,000-acre lake is a source of drinking water for Panama City, he said.

Dr. Al P. Burkhalter, coordinator of the Department of Natural Resources' aquatic plant research program, Tallahassee, agreed with the legislators. "The amur has more potential as a control for aquatic weeds than anything we've seen in the last 15 or 20 years. It's time now to get it out of our experimental ponds into more natural situations to find out what we can do with it," he said.

Dr. David L. Sutton, assistant professor with UF's Agricultural Research Center, Ft. Lauderdale, said the fish is already being used in Arkansas to control submersed waterweeds without any undesirable or unforeseen side effects on other fish and plants.

His research, suported by \$75,000 in grants from the Rockefeller Foundation and the Department of Natural Resources, has convinced him that a trial release of the fish into a few land-locked lakes in Florida "will not be something we regret later on."

"We've tested the amur on all sorts of aquatic plants, with many different types of fish, and we're almost certain the amur will have no adverse effects on sport fishing or the overall aquatic environment," Sutton said.

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Here's a powerful, all-hydraulically operated unit that fits right in with today's modern emphasis on environmental control... Vermeer's New 671 Log Chipper. Eliminates tree and log disposal problems quickly and economically. Load it with logs, old lumber, railroad ties, decayed telephone poles; then chew 'em to chips in minutes for valuable mulch, bedding, ground cover, erosion control, etc. The 671 Log Chipper... great for cities, parks, landscapers, contractors, utilities and tree service firms everywhere. Write for more information and complete literature. Better yet, ask for a free demonstration.



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For More Details Circle (115) on Reply Card



It's automatic! Just load any log or piece of wood—up to 4' wide, 6' long—into the hopper... where carbide-tipped cutting teeth chew it to chips in minutes. Handy conveyor then deposits chips in truck for easy disposal.

He pointed out that the fish is native to Siberia and requires swiftly moving cold waters to reproduce. He doubts the amur will ever be able to reproduce in Florida's warm waters, which makes it more attractive as a natural or biological control agent for hydrilla.

The floating water hyacinth is not a part of its preferred diet, but the fish will consume this weed as a last resort, he said.

Sutton explained the UF research project near Orlando involves four ponds which are planted with several types of desirable and undesirable plants, including the troublesome hydrilla. In the control pond (with no amur), hydrilla grew rapidly to problem proportions, crowding out desirable plants. But in the three ponds stocked with amur, the hydrilla has been controlled proportionately to the number of amur they contained.

He estimates 25 to 50 amur would be needed to control each acre of submersed vegetation, but the actual number would depend on the amount of waterweeds and the size of the fish.

Sutton's research indicates the amur will consume about two and one half times its body weight daily, gaining from three to twelve pounds a year. It can reach weights of sixty to one hundred pounds before dying of natural causes.

He added that the fish is a welcome source of food in China and southeast Asia, and it's being introduced as a fish for aquaculture in Europe.

"It resembles Florida's mullet,

tastes a lot like catfish, and will strike artificial lures, offering some possibilities for sport fishing," Sutton stated.

Shipping Infected Nursery Stock Injures Credibility

Incidents of disease and insect infested nursery stock being shipped across state lines even though a state inspection certificate has been issued have been reported by the American Association of Nurserymen.

In a recent speech to the National Plant Board, Dean F. Lovitt, chief of the plant industry division of the Michigan Department of Agriculture, attributes blame for this situation not only to state regulatory officials but to the nursery industry as well.

"In recent years," says Lovitt, "we as regulatory officials have become distracted and preoccupied by such national issues as USDA reorganization, the APHIS budget, the pesticide flap, pesticide control, FEPCA, OSHA, Federal quarantine rescissions and other such problems that the discharge of our responsibility to the nursery industry and to its customers has continued on its own momentum with only an occasional nudge from us.

"Likewise," he continued "I submit that the industry has been distracted and preoccupied by some of those same developments and by the need to supply an expanding market in the face of such problems

as escalating costs, transportation and marketing complications, taxes and associated situations."

He cited several incidents of infested nursery stock being shipped into Michigan. He indicated that these infestations were clearly obvious, and should have been readily seen by any inspector or nurseryman... if he had looked at the plants.

Although there is clearly a problem, Lovitt indicated that it is not yet widespread. "We seldom have problems with shipments of stock from many states and many nurseries. It is interesting that in those states where there apparently is a lack of regulatory capacity, certain nursery firms can always be counted on to deliver stock that lives up to the inspection certificate. Those are not the nurseries that regulations were created for," states Lovitt.

To better understand this problem and help find practical solutions, Mr. Lovitt suggests nurserymen give serious attention to "credibility of inspection certificates."

"The American Association of Nurserymen believes the problem of improper certification of nursery stock needs review," says Ray Brush, AAN administrator, "and Mr. Lovitt's suggestion is appreciated. We plan to explore it further with the AAN Quarantine Committee when it meets in January. At that time we will review the various points to be made on the subject and consider a nursery industry panel to meet with the National Plant Board at its next meeting."



This year give a living tree from the fresh green land of Oregon. That's the attention getting line on a self-merchandising display stand developed by Oro-Green Nurseries, Inc., Boring, Ore. The company specializes in nursery stock for patio, deck, and landscape. New sales and marketing manager is Donald E. Lloyd. They developed the stand idea and another to sell one-gallon tree containers holding a tree and all packaged for the U.S. Mail.

Green Industry Newsmakers

PEOPLE PLACES EVENTS



From tree limbs to wood chips. That's what West Mifflin, Pa. street commissioner Francis J. Horn is doing with branches from trimming jobs. He gives the chips to the citizens for use as mulch. Previously, brush was burned. Horn uses this M-B Chipper because it has no flywheel, instead, a spring-supported feed plate that adjusts to various wood sizes.



William T. Miller, (r) president of Richmond Battery and Ignition Corp., Richmond, Va. and pres. of the Engine Service Assoc. presses hands with Herbert V. Kohler, Jr. board chairman of Kohler Co. Miller accepted a plaque for his company's achievements as a centennial distributor of Kohler engines.



Robert F. Lederer, exec. VP of the American Association of Nurserymen, talks with Dr. Richard P. White, (r) former AAN exec. VP about a comprehensive history of the nursery industry. White authored the manuscript which is to be published.



William F. Sell & Son, Taylor, Mich. has been named winner in the Bolens sponsored contest for floor displays. His display is shown above. The Outdoor Power Equipment Div. of FMC Corp. also named branch winners. Included are: Sherer Enterprises, Burnsville, Minn.; Sell for Michigan; Balks Small Engine Repair, Dodgeville, Wis., and Strieter, Inc., LaPorte, Inc.

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