Metro Tree Stress Studied At Penn State

Ornamental trees than can endure environmental stresses in metropolitan regions are the subject of a new study at The Pennsylvania State University.

Henry D. Gerhold and Maurice E. Demeritt of Penn State's school of forest resources are developing a practical genetic information system to help planters select better suited varieties for metropolitan regions. Their research is supported by the Pinchot Institute of Environmental Research through funds of the U. S. Forest Service.

Initially, a broad base of information will be obtained through a survey covering all urban and suburban regions of New England, the Middle Atlantic States, Ohio, and Michigan. A complete list is to be assembled of all officials who are responsible for tree planting and maintenance along streets and highways in large and small cities, in parks or plazas, and in other public areas in the Northeast.

Such officials are asked to cooperate by sending their name, address, and title to Dr. H. D. Gerhold, Forest Resources Laboratory, University Park, Pa. 16802. When these people are contacted, they will be asked about specific species planted, the varieties within species, and where the trees were planted and their function.

Information also will be collected regarding damage caused by diseases, insects, de-icing salts, and other variables.

Polluted air, de-icing salts, unnatural lighting, and limited rooting space cause declining vigor and death of many of the trees planted in cities and along highways, the Penn State scientists point out. Some species and varieties are genetically better adapted than others to such unfavorable conditions.

In the artificial world of the city dweller, a plant is one of the last tangible reminders of man's dependence on nature, they note.

Trees and shrubs improve the surroundings for residents of towns and cities alike. Vegetation helps to muffle street noises, provides shade and protection against wind, and removes dust and noxious gases from the air.
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Agchem Div. of ICI America Moves to Delaware

Offices of the agricultural chemicals division of ICI America Inc. will be moved from Stamford, Conn. to Wilmington, Del. The announcement was made in Stamford by Dr. G. W. Padwick, vice president and general manager of the division.

The effective date of the move will be early September. After that date, the division's address will be 3411 Silverside Road, P.O. Box 751, Wilmingtom, Del. 19899.

The move is part of the consolidation in Wilmington of headquarters facilities of all ICI America operating divisions. Also moving from Stamford will be dyes, chemicals and plastics operations. The Stuart Pharmaceuticals division is moving from Pasadena. These moves will complement the major steps in bringing together the executive management of the company formed in January by the merger of the former Atlas Chemical Industries, Inc. and the original ICI America.

The company is a wholly-owned subsidiary of Britain's Imperial Chemical Industries Limited (ICI) of London, one of the world's largest chemical firms.

Johnsongrass Control
By James V. Parochetti
Extension Weed Specialist
University of Maryland

First, and most importantly, one must recognize Johnsongrass before it can be controlled. Pictures of Johnsongrass are available.

Many people who have Johnsongrass have no idea what "that stubborn weed" is until that weed invades much of the area.

Control of the first Johnsongrass sprigs before they go to seed and spread further by rhizomes, will save money and countless hours of control in the future.

Johnsongrass in non-cropland must be eradicated to prevent reinfection.

COMMON NAME

<table>
<thead>
<tr>
<th>Bromacil</th>
<th>Monuron</th>
<th>Prometon</th>
<th>Karbutilate</th>
<th>Sodium chloride</th>
<th>Sodium chloride + sodium borate</th>
<th>Sodium chloride + sodium borate + bromacil (1.5%)</th>
<th>Sodium chloride + sodium borate + prometone (5%) + simazine (0.75%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyvar X</td>
<td>Instemul BRO-40</td>
<td>Krovar I</td>
<td>Urox B</td>
<td>Weed Free B-8 (&amp;LB)</td>
<td>Telvar</td>
<td>Pramitol 25E</td>
<td>Tandex 80WP &amp; 4G</td>
</tr>
<tr>
<td>DuPont</td>
<td>Stull Chemical</td>
<td>DuPont</td>
<td>Allied Chemical</td>
<td>Chapman</td>
<td>DuPont</td>
<td>Geigy</td>
<td>FMC (Niagara)</td>
</tr>
</tbody>
</table>

There are a number of chemicals registered for Johnsongrass eradication for these locations. One group of chemicals has no soil activity and is absorbed by the leaves. These are MSMA and DSMA. These herbicides must be reapplied whenever Johnsongrass regrows; usually two to three applications at monthly intervals is needed for eradication. Some re-growth can be expected the following year.

The other group of herbicides most commonly used for spot treatment of Johnsongrass are the herbicides which have soil activity and persist for one to three years.

These herbicides may kill the top of plants, but they kill primarily by root uptake. Any herbicide at a high enough concentration will kill Johnsongrass.

The reason that some herbicides are registered as compared with others is based on (1) cost, (2) length of soil residual and (3) effectiveness in killing Johnsongrass. The University of Maryland recommends several soil residual herbicides for Johnsongrass control in non-cropland.

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MISCELLANEOUS
TREE APPRAISALS, SURVEYS, loss evaluations and expert consultation services. For names of members of the American Society of Consulting Arborists, Inc., throughout the county contact: Executive Director ASCA, 12 Lakeview Ave., Milltown, New Jersey 08850.

LANDSCAPE DESIGN KIT 37 rubber symbol stamps and ink pad, postpaid $25.00 C.O.D. $26.00 plus postage. Order direct or brochure sent. California add tax. T-Gordon's, Box 741T, Reseda, Calif. 91335.

USED EQUIPMENT
FULL LINE OF USED TREE equipment for sale. We accept trade-ins and buy used tree equipment. New service available for northern Ohio. We now rent skyworkers, tree spades, brush grinders, 84' National crane, stump grinders and wood splitters. Edwards Tree Service, 3190 Cooper Foster Park Road, Vermilion, Ohio 44089. Phone: 216 967-6750 or 933-6750.

RECONDITIONED brush chippers, sprayers, log splitters, stump routers, bucket trucks. Let us know your used equipment needs. Supt. of Parks, 5620 Old Sunrise Highway, Massapequa, New York 11758. Phone 516 799-7819.

VALLEY PRODUCTS stump cutter model 5, new condition, $450. County Tree Service, 376 Broadway, Carle Place, New York 11514. Phone 516 333-1770.

5 FOOT ANDERSON rock picker, good condition. Green Valley Turf Farms, Box 165, Canfield, Ohio 44406. Phone 216 533-3534.

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HELP WANTED
ABORIST WANTED If you are an experienced Arborist, are capable of supervising a crew of men, have experience in landscape design and would like to join a growing company, we'd like to discuss a permanent position with you. Excellent fringe benefits are available and a salary commensurate with your experience. All inquiries will remain confidential. Send your resume to: American Tree and Landscape Co., N1W21756, Whitehorse Dr., Colgate, Wis. 53017, Attn: Ross Barnelew.

TEACHING POSITION AVAILABLE: Edmonds Community College seeks a second instructor of Ornamental Horticulture to begin Autumn Quarter, 1972. Areas to be taught consist of landscape design and construction and full maintenance of established plantings. Send resume to: Dean of Instruction, Edmonds Community College, 20000 68th Avenue West, Lynnwood, Washington 98036.

DISTRIBUTORS FOR D. J. Andrews, Inc. stump cutter teeth, pockets and bolts. Best wholesale and retail price in U.S.A. Add to this exclusive area local advertising at your expense, etc., and you have our story. D. J. Andrews, Inc., 17 Silver St., Rochester, N.Y. 14611. Call 716 235-1230, or 716 436-1515.

BUSINESS OPPORTUNITIES
A WELL ESTABLISHED Tree Surgery and Landscape business located in southern New England is looking for a man who would sell tree service and landscape work in surrounding areas; one who is aggressive, with initiative and capability to sell. This business will be sold to the right man for as little as $15,000.00 down to start. Owner has to slow down and remove himself within a 3 or 4 year period. Send your resume and we will set up an appointment. All replies confidential. Write Box 87, Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

POSITION WANTED
GRADUATE HORTICULTURIST desires position as city forester, supt. of parks, grounds maintenance supt. or similar type position. 5 years experience in grounds maintenance supervision including planting, insecticides, herbicides, design, drainage and erosion control. Willing to relocate. Preferred areas: 1. Atlanta, Ga. 2. Ohio. 3. Northeast U.S. Resume sent on request. Box 90, Weeds, Trees, & Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

—Advertiser's Index—
Ackerly Mfg. Company 51
Adelphi Kentucky Bluegrass 40
Adventure Line Mfg. Co. 38
American Landscape Co. 27
Applied Biochemists 37
Asplundh Tree Expert Co. 13, 29
Bolens, Div. of FMC 31
Bowie Industries, Inc. 30
Diamond Shamrock Chemical Co. 4-5
E. I. duPont de Nemours & Co., Inc. 49
Ford Tractor & Implement
Gordon Corp. 32
Hypro, Inc. 52
Hohn, Inc. 9
Jacklin Seed Co. 8
The Kohler Co. 48
Limb Lopper Co. 21
Lofts Seed Co. 4th cover
Magline, Inc. 40
Mallinckrodt Chemical Works 7
Mobil Aerial Towers, Inc. 35
Merion Bluegrass Association 43
The F. E. Myers & Bros. Co. 26
Niagara Chemical Div., FMC 14
Porco Div. National Foam System 50
Rain Bird Sprinkler Mfg. Corp. 25
Ryan Equipment Co. 33
Skyworker Corp. 50
Sihl American, Inc. 3
Thompson-Hayward Chemical Co. 19
United States Gypsum Co. 39
Vandermolen Corp. 40
Vermere Mfg. Co. 41
Wayne Mfg. Co. 23
---trimmings---

**EPA ESTIMATES** that air pollution costs the nation more than $16 billion a year in material losses — lost working hours because of health effect and damage to plant life and property. Water pollution accounts for nearly $15 billion a year in damage. Strict enforcement of antipollution efforts spread among the nation’s 60 million families would cost each family an average of $481 a year.

**GIANT AFRICAN SNAIL** is on the march again. This time USDA has placed under Federal regulation on an additional area in Dade county, Florida. It includes nearly two square miles of North Miami in the Biscayne Gardens section. Animal and Plant Health Inspection Service personnel describe the giant African snail as one of the most destructive mollusk pests known to man. Under the regulation, items such as sod, soil, compost, manure, sand, gravel, bricks, stones, pipes, nursery grown plant, plant debris, etc. are restricted to **INTRA-state** movement. Restricted items may be moved **INTER-state** under permit if they are going to certain approved destinations.

**COUNCIL ON ENVIRONMENTAL QUALITY**, in a third annual report, has stated that our air is getting cleaner but our water dirtier. Based on air samplings between 1969 and 1970, emission of carbon monoxide has dropped 4.5 percent and particulates 7.4 percent, primarily through controls applied to smokestacks. But water pollution from sources such as municipal sewer systems and industry had not decreased. A further source of increasing water pollution, which the council has underestimated, is the runoff from construction projects and agricultural lands.

**PURDUE UNIVERSITY** extension agronomists say that weed control in turfgrass lawns can be accomplished any time. However, late fall herbicide applications are better than those in midsummer for broadleaf weed control.

**PETROSET SB EMULSION** is a new soil binder developed by Phillips Petroleum Company. It’s easy to use. Dilute with water and apply with conventional spray equipment. Field performance from a half-dozen or more states indicates that the material can prevent erosion and soil loss until grass is established. For more information, write Phillips Petroleum Company, chemical department, 15 B1 Phillips Building, Bartlesville, Okla. 74004.

“**BUG IN**” is the latest twist in the anti-pesticide crusade. A bulletin of the New Jersey Federation of Shade Tree Commissions reports that distribution of lady bugs and praying mantis egg cases is a big ticket item. Recommendations for an average lot are three mantis cases and a half pint of lady bugs. In Maplewood, N. J., boy scouts distributed egg cases throughout a twenty acre park.

**SUPERIOR COTTONWOODS** for the south is paying off for the Forest Service, USDA. More than 615,000 cuttings of genetically superior cottonwood trees have been shipped to state and private tree nurseries in the lower Mississippi Valley. The trees, a result of Forest Service research initiated 15 years ago, will grow as much as 12 feet in height each year — 20 percent faster than ordinary cottonwoods. An estimated 750,000 acres of land in the south is suitable for growing cottonwoods. “We expect that the availability of the genetically improved stock will increase reforestation efforts on this land,” said John R. McGuire, Forest Service chief.

**THE WHITE AMUR**, a herbivorous fish being tested to control aquatic vegetation in Florida, is generally docile. When excited, however, it can jump out of the water like the Navy’s Poseidon missile. Cases have been reported where people have been knocked unconscious by speeding white amur weighing 20 or more pounds. That’s a hit and swim accident that won’t make the police blotter.

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**CRABGRASS**

*(Digitaria sarguinalis)*

By DR. JOSEPH DUCH

Department of Agronomy

Pennsylvania State University

Crabgrass is one of the major weeds confronting both the homeowner and professional turf manager. It is simply notorious—if life had existed on the moon, the astronauts would have anticipated finding crabgrass!

Prevaleant in most areas with over 70 frost-free days, crabgrass is a pale green summer annual. Germination begins in mid-spring, shortly after lilacs bloom, and may extend for over six weeks. The finger-like seed heads produce thousands of seeds for next year’s problem. Researchers have found over 400 seedling plants per square foot.

Physiologically, crabgrass is able to thrive during hot weather and even withstand drought better than most turfgrasses. After the first heavy fall frost, crabgrass dies leaving unsightly brown patches in the turf. Its only known weakness is inability to grow in the shade, including that provided by a dense turf.

**EDITOR’S NOTE:** An 8½ x 11-inch color print of crabgrass shown at the right is available, at no charge, by writing to: O. M. Scott & Sons Company, Marysville, Ohio 43040.
Crabgrass
(Digitaria sanguinalis)

ILLUSTRATION BY J. CONVERSE M. SCOTT & SONS COMPANY 1972