



"Were you the gentleman who called about having a dead tree remov . . ."

### Landscaper, Applicator Firms Merge in Tulsa, Okla.

Carl R. Miller, president of T. Landscapers, Inc., Tulsa, Okla., has announced a merger with The Pied Pipers, Inc., also of Tulsa.

"With this merger, The Landscapers now offers the most complete landscaping service in the Southwest," Miller said.

Miller's company specializes in the design and creation of landscaping for both commercial and residential applications. It engineers and installs lawn sprinkler systems and establishes lawns from the company's own 10-acre turf nursery.

Pied Pipers, Inc., owned by Harold D. Stephens, specializes in chemical application to lawns, plants and trees for weed and pest control, fertilization and feeding, and industrial weed control.

### Niagara Chemical Forms Industrial Sales Department

FMC Corporation's Niagara Chemical Division has organized a new marketing group to sell its proprietary chemicals in non-agricultural use areas. Called the Industrial Sales Department, it will be headed by Frank K. Chestnut, a 22-year employee and most recently manager of advertising and public relations.

Among the products the new department will be assuming sales responsibilities for are Tandex<sup>(R)</sup> soil sterilant, recently introduced for broad spectrum non-crop weed and brush control; Pyrenone<sup>(R)</sup> synergized pyrethrins, used in an estimated 85% of all household insecticidal aerosols and space sprays; and Drione<sup>(R)</sup> insecticide, an unusually effective control for roaches, ants, spiders, and many other insects.

### \$600,000 Grant Awarded For Pesticide Research

A joint project by four of the world's foremost centers for basic research on insecticides may open the way to development of practical new pesticides that will minimize environmental pollution.

Scientists at the centers officially began work in January on a project, the first cooperative venture of its kind, that is being supported for its initial three years by a \$600,000 Rockefeller Foundation grant.

Most of the grant money will go toward traineeships in pesticide research and support for the promising young scientists who receive them.

The four laboratories collaborating on the project are at the University of California, Riverside, UC Berkeley, Cornell University of Illinois.

Each of the laboratories has made major contributions to the field of chemical pest control and will pursue its own special area of research during the project.

UCR's major research efforts will focus on the synthesis of novel, selectively toxic candidate compounds and on resistance development by pests to pesticides.

Heading UCR's part in the project is Dr. T. R. Fukuto. He'll personally be in charge of the work aimed at developing new candidate insecticide materials. Dr. Robert B. March will direct research on the development of resistance to toxic chemicals by insects. Both have played significant roles in past research at UCR that has led to the development of many insecticides in use today.

A former colleague of theirs at UCR, Dr. R. L. Metcalf, will head the project work at the University of Illinois. Dr. J. E. Casida will lead the project work at UC Berkeley and Drs. C. F. Wilkinson and R. D. O'Brien at Cornell University.

The project leaders are hopeful that their research findings will lead to development of insecticides with new modes of action, greatly enhanced selectivity, improved biodegradability, and more desirable persistence characteristics.

"Unfortunately," Dr. Fukuto said, "persistent pesticide chemicals in use today are, in some cases, the most effective or only practical and available means of controlling certain pests. Other materials are not as satisfactory in all cases.

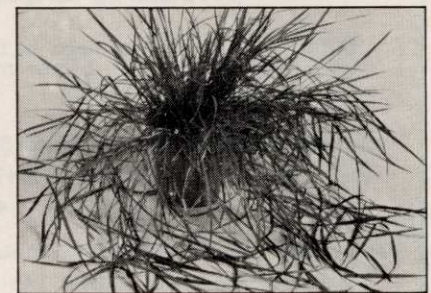
"We need to develop practical substitutes for the objectionable chemicals now in use and to study alternative means of pest control."

# At last! A non-creeping Bentgrass that's easy to care for. **HOLFIOR** Colonial Bentgrass

CONSIDER THESE ADVANTAGES: It is non-creeping in contrast to the creeping bentgrasses. Its stems and leaves produce a dense turf with good texture. The tillers stand more upright with leaves which remain green all the way down to the ground. Avoid tufty appearance even when mowed short. Provides a uniform turf without ugly patching or puffiness.



Note the non-creeping growth characteristics of the Holfior Bentgrass above compared to the Penncross Bent below.



Want more information? Write for Northrup King Turf Bulletin #3 on Holfior Bentgrass.



**NORTHROP, KING & CO.**  
LAWN AND TURF DEPARTMENT  
1500 Jackson Street N.E.  
Minneapolis, Minn. 55413

# Incriminating 2,4,5-T Test Is Invalid

Birth deformities in laboratory mice exposed to high dosages of 2,4,5-T may really have been caused by a toxic contaminator. The possibility is being investigated by the U.S. Department of Agriculture.

The same substance may be contaminating other chemicals, so USDA is reviewing or gathering new data for 17 other herbicides, fungicides and insecticides. All 17 compounds are polychlorophenolic pesticides.

Ned D. Bayley, director of Science and Education, said the inquiry was initiated after new data submitted to the Department of Health, Education, and Welfare, indicated that the 2,4,5-T used in the study conducted by Bionetics Research Laboratories for HEW contained 27 parts per million of tetrachlorodibenzopara-dioxin, compared with only about 1 ppm of this contaminator generally found in the herbicide.

New data show that preliminary tests of 2,4,5-T with 1 ppm of this contaminator give no indication of birth deformities, Bayley told Rep. Richard McCarthy of New York.

It was the Bionetics study of 2,4,5-T, along with other pesticides, cited last October when USDA announced it would cancel registration



Newly elected Board of Directors of the National Landscape Nurserymen's Association are, from the left: (seated) Vice-President William R. Heard, Heard Gardens, Des Moines, Ia.; President Arthur W. Landseadel, The Secor Landscape Center, Toledo, Ohio; Secretary-Treasurer James A. McCarty, Colonial Garden Center, Inc., Evansville, Ind.; (standing) Herman R. Wallitsch, Director Region II, Herman R. Wallitsch Nurseries, Louisville, Ky.; Joe L. Strickfaden, Director Region III, Strickfaden Nursery, Sandusky, Ohio; Michael Ryan, Director Region IV, Old Orchard Gardens, Manchester, Mo.; Member-at-Large James Maschmeyer, Maschmeyer's Nursery, Inc., Indianapolis, Ind.; Richard Kauffman, Director Region I, J. Franklin Styer Nurseries, Inc., Concordville, Pa.; Arthur Fitzsimmons, Director Region VII, Arthur Fitzsimmons Garden Centre, Hamilton, Ontario, Canada, and Edward Teas, Director Region V, Teas Nursery Co., Inc., Bellaire, Tex. Not shown is Director of Region VI, Frank M. Tomlinson, Tomlinson's Select Nurseries, Whittier, Calif.

of this herbicide for use on food crops effective Jan. 1, 1970, unless FDA, the Food and Drug Administration, HEW, had established a safe legal tolerance for such use.

"We are awaiting advice from HEW as to whether it intends to establish tolerances for 2,4,5-T before we decide whether to cancel or extend uses of 2,4,5-T on food crops," the letter said. "Our Jan. 1, 1970, date was based on HEW's expectation that it would have reached a decision by that time. That agency

believes the public interest would best be served by waiting for additional research data which will be available shortly. We concur in the judgment."

*EDITOR'S NOTE: As WTT went to press, it was further learned that the solvent, DMSO, also was used in the Bionetics test. This material has been known to cause cancerous tumors. DMSO is not used as the solvent for commercial applications of 2,4,5-T.*

## Meeting Dates

Dates for this column need to reach the editor's desk by the 10th of the month preceding the date of publication.

**Southern Chapter, International Shade Tree Conference**, Hampshire Motor Inn, 7411 New Hampshire Ave., Langley Park, Md. Mar. 1-4.

**University of Massachusetts Annual Fine Turf Conference** at Highpoint Motor Inn in Chicopee, Mass., Mar. 4-6.

**36th Annual Turfgrass Conference, Iowa Golf Course Superintendents Association**, Roosevelt Motor Hotel, Cedar Rapids, Mar. 9-11.

**North Carolina State University Turfgrass Conference**, Faculty Club at NCSU, Mar. 10-11.

**Western Society of Weed Science annual meeting**, Sacramento Inn, Sacramento, Calif., Mar. 17-19.

**University of Maine Mid-Winter Turf Conference**, Steer Inn Motor Lodge, Rte. 1, Maine Turnpike Exit No. 7, South Portland, Me., Mar. 18-19.

**California Park and Recreation Society** announces three regional workshops. Apr. 7 at Palo Alto Community Center on Middlefield Road; Apr. 8 at Carriage House Restaurant, 1210 N. Blackstone Ave., Fresno; and Apr. 9 Parnell Park Activity Building, Whittier.

**Ohio Chapter, International Shade Tree Conference**, at the USDA Shade Tree and Ornamental Plants Laboratory at Delaware, Ohio, July 8.

**46th International Shade Tree Conference**, Hotel Flagship-Rochester, Rochester, N.Y., Aug. 9-14.



## USDA Registers U. S. Borax Herbicide, Maintain CF 125

United States Borax & Chemical Corporation announces the registration of MAINTAIN CF 125 by the U. S. Department of Agriculture.

MAINTAIN CF 125 has proved to effectively retard many grasses and control broadleaved weeds and vines. MAINTAIN CF 125 acts systemically and is translocated from the leaves and/or the roots throughout the plant to meristematic tissues.

The chief ingredient of MAINTAIN CF 125, chlorflurenol, is a product of E. Merck AG, Darmstadt, West Germany.

Extensive field and laboratory testing has been under way over the past three years by the U. S. Borax.

"Results have established that MAINTAIN CF 125 is the first new material which will economically and effectively control most turf grasses and further give season-long control of broadleaved weeds associated with turf," stated Dr. L. M. Stahler, manager of agricultural research and development.

Principal markets for MAINTAIN CF 125 include highways, golf



Robert Hector, right, chairman of the board of Hector Supply Company, with Tom Tabor, sales representative for Zonalite Division of W. R. Grace, stands before the Terra-Lite and Vermiculite display at the first annual Hector Turf & Garden Trade Exhibit and open house at the firm's new million-dollar warehouse in Miami. More than 25 manufacturers exhibited at the trade show, Jan. 15-18.

courses, parks, airports, utilities, railroads, and military installations.

## Iowa Aerial Applicators Elect Theobald President

Lester Theobald of Mapleton has been elected president of the Iowa Aerial Applicators Association. His selection came at the annual business meeting recently in Des Moines.

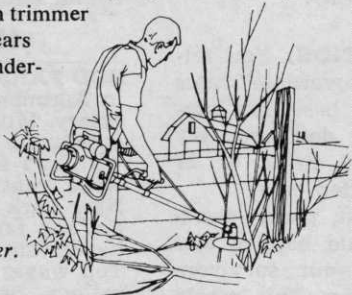
Other officers and committee chairmen are: Vice-president—Don

Chase of Villisca; secretary-treasurer—Lowell Weir of Boone; public relations chairman—Vernon Orr of Whiting (members are Leo Sterk, O. B. Cox and Ray Breazeale); program chairman—Elmer Steier of Whittemore (members are Cecil Schenk and Paul Hursh); and safety chairman—Marvin Smith of Eldora.

Members selected past president Paul Hursh as the Iowa group's director member to the National Aerial Applicators Association.

# BRUSHKING<sup>®</sup> solves weed and brush control problems easily, safely.

Rugged BRUSHKING cuts down saplings and trees up to nine inches diameter; with trimmer attachment, effectively clears weeds, heavy grass and underbrush. No need for toxic chemicals. Safe and easy to operate. Thousands in use the world over. Five models to choose from. Send for free literature and name of nearest dealer.



**ROWCO MANUFACTURING CO., INC.**  
DEPT. WT-370, 48 EMERALD STREET, KEENE, NEW HAMPSHIRE

For More Details Circle (104) on Reply Card

## let Mock help you **TURN ON THE GREEN**

We'll confess that we're one of those "over 30 squares" . . . we have difficulty communicating with the younger generation.

A good explanation for this might be that we've been busy helping folks like you with their turfgrass program or problems. For more than a quarter of a century we've been preoccupied with providing our customers with ideas for better turfgrass growth and management.

But just to prove that there's no "generation gap" in our product line, we call your attention to these Mock specialties: Pelo Perennial Ryegrass; Manhattan Perennial Ryegrass; Fylking Kentucky Bluegrass; and Prato Kentucky Bluegrass.

For ideas and service 1970 style, call on Mock—the grass specialists. Phone or write for special prices.

**MOCK SEED CORPORATION**  
Pittsburgh, Pa. 15230 Area Code 412/281-3193

For More Details Circle (106) on Reply Card

a touch of  
Swedish beauty



**0217® BRAND  
FYLKING KENTUCKY  
BLUEGRASS\***

Jewel among lawngrasses, originating in Svalof, Sweden, Fylking has an entire complement of desirable features. Unusual density due to an abundance of sideshoots creates a weed-free lawn. It colors early to deep green emerald. Blades stay unblemished, brilliant through fall, because it's more disease resistant. Winter hardy and drought resistant, Fylking grows thicker in summer. Doesn't produce ugly seedheads, mixes well with other varieties, gradually dominating. Fine, thick texture can be cut low as 1/2 inch. Proven in 12 years of international testing by noted authorities. Ask for 0217® Fylking Kentucky bluegrass (U. S. Plant Patent 2887) at your seed distributor. Write Jacklin Seed Co., Dishman, Wa. 99213, for information.

For More Details Circle (124) on Reply Card

## Trimnings

**THE POPULAR WAY** to start the ball rolling toward banning a chemical these days apparently is to feed ridiculously high amounts to laboratory animals until they develop some scary ill effects.

Reader's Digest reports that it took cyclamate amounts equivalent to 10 times the established daily intake limit for humans to kill the fetus in mice; 15 to 30 times the recommended human limit to cause tissue changes in rats; and levels "well above the recommended human maximum" to affect rabbits.

But cyclamates fell.

Of course, DDT got the ax even without this kind of research basis. A study of Arizona aerial applicators showed a build up of DDT five times greater than the national average, without detectable ill effects. Twenty-year employees in a DDT factory showed no detectable ill effects. Just recently, Michigan State researchers tried to prove conclusively a correlation between DDT content and death of Coho Salmon fry. They couldn't.

Apparently this type of research doesn't count.

Now 2,4,5-T is under fire because a laboratory test indicated the herbicide caused cancer in mice. It develops that the 2,4,5-T used contained a contaminate in amounts 27 times greater than can be expected normally. Yet insiders predict the herbicide will be restricted.

\* \* \*

**SUPPOSE WE APPLY** the same test criteria and reasoning, based on experimentation results, to another pesticide problem?

We suggest the writers of all inaccurate information about pesticides eat the paper their words are printed on. At the least, this action could cause severe stomach cramps; at the most, a weight problem and increased danger of heart attack; or the real possibility of a fatal choking spell.

Now there's solid basis for banning the writing of that kind of material, wouldn't you say?

\* \* \*

**ANOTHER QUESTION:** You fellows who use those "overdose" rates on small animals as basis for banning pesticides, why don't you try taking aspirin at 10 times or 27 times the recommended rate?

(On second thought, please don't. We know what would happen and we couldn't stand your survivors calling for a new ban. This whole pesticide controversy gives us a headache, and we need our aspirin.)

## Classifieds

When answering ads where box number only is given, please address as follows: Box number, c/o Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Rates: "Position Wanted" 10¢ per word, minimum \$3.00. All other classifications 20¢ per word, minimum \$4.00. All classified ads must be received by Publisher the 10th of the month preceding publication date and be accompanied by cash or money order covering full payment. Bold-face rule box: \$25.00 per column inch.

### USED EQUIPMENT

**FOR SALE — Hardie hydraulic spray 60 to 80 gallons per minute pump (2) two hundred and fifty gallon tanks mounted on 1962 two ton Chevrolet truck, two-speed axle, driven less than 59,000 miles. Excellent condition, will sacrifice due to bankruptcy, \$2,000.00 cash and carry. F. C. Thomas Tree Service, 1818 Grove Street, Greensboro, North Carolina 27403.**

**MIST BLOWERS, Hardie L-80A Aero-mist. 14,000 C.F.M., 150 M.P.H., Ford Industrial 4 cylinder. Completely reconditioned, \$1,250.00 each. Equipment Sales Company, 4744 Sunrise Highway, Massapequa Park, N.Y. 11762. Phone 516 799-7619.**

**SPRAYERS, chippers, log splitters and other equipment at large savings. Let us know your needs. Equipment Sales Company, 4744 Sunrise Highway, Massapequa Park, N. Y. 11762.**

**TORO 76" Professional lawn mower. Used 200 hours. \$695. Phone (714) 537-5715 Orange County, California.**

### FOR SALE

**ESTABLISHED tree service, Orange County California; Equipment includes 50' Hi Ranger with Chipbox, Asplundh chipper, Stump grinder, misc. tools. Bad health dictates sale. Paulson Tree Service, 12242 Cliffwood, Garden Grove, Calif. 92640. Phone 714 638-7234.**

**A FORT Lauderdale Lawn and Ornamental Pest Control Co. 700 yearly contracts. \$70,000 gross. \$20,000 plus net. Employees will stay. Write Mr. DuBois-Anaconda Realty Co., 1776 E. Sunrise, Fort Lauderdale, Fla. 33304.**

### SEEDS

**SOD QUALITY Merion Seed for discriminating growers. Also Fylking, Delta Park, Newport and Prato bluegrasses as well as fine fescues. We will custom mix to your specifications. Michigan State Seed Company, Grand Ledge, Michigan 48837.**

### HELP WANTED

**SOD FARM MANAGER — A degree in Agronomy preferred but not necessary. Must be able to handle men, coordinate all work and be familiar with sod farm operation; including weed control, grasses, etc. One of New York State's oldest, most modern sod farms, complete with latest harvesting and irrigation equipment. Top wages paid, hospitalization, vacations, benefits, etc. Only experienced, qualified men need apply. Reply giving complete resume including past experience and refer-**

For More Details on Following Page Circle (110) on Reply Card

For More Details on Back Cover Circle (114) on Reply Card

ences. Batavia Turf Farms, Inc., Box 662, Batavia, New York 14020.

**LANDSCAPE ARCHITECT** — Degree in Landscape Architecture from accredited school with some experience. Salary open. Responsible for design plans, construction coordination, and long range planning of rapidly growing park system. Contact: Karl Holzwarth, Park Director, Racine County Highway and Park Commission, Rte. 1, Box 226A, Sturtevant, Wis. 53177.

**EXCELLENT opportunity for experienced Landscape Foreman** to supervise landscape crew in execution of planting from plans and sketches. Salary plus incentive pay, hospitalization, profit sharing, insurance and retirement plan. Reply to: The Siebenthaler Co., 3001 Catalpa Drive, Dayton, Ohio 45405.

**TWO spray men needed, Boise, Idaho area.** Must have adequate knowledge of pesticides as well as being able to contact new accounts. Contact Idaho Pest Control, 100 N. Beach, Boise, Idaho 83704.

**SUPERVISOR capable of taking charge** of several crews doing residential and commercial grounds

**BARTLETT TREE EXPERTS OFFER EXCEPTIONAL OPPORTUNITY**



This nationally known tree service company, which operates from Maine to Florida, offers outstanding career opportunities in sales and management for men experienced in the tree field or college graduates in forestry, horticulture or agriculture. Ability to work with public and personnel is important. Attractive salary plus commission; protected territory; growth potential excellent. Intensive training course and benefits. Send resume of education or experience to William Eckhardt, Bartlett Tree Experts, 2770 Summer Street, Stamford, Conn. 06905

WEED CONTROL SERVICE



"So you had to drink the chemical because it smelled good!"

maintenance. Must be quality conscious and willing to work hard. Good pay and excellent future. Cut 'N Care, Inc., 2615 DeLeon St., Tampa, Fla. 33609. Attn. Mr. E. Berthe.

**LANDSCAPE FOREMAN** (prefer college) knowledge of nursery management and personnel. Salary \$7500-\$9000. Write Box 20284, Billings, Montana 59102.

**Advertisers**

INDEX TO ADVERTISERS

Ackley Manufacturing Co. ....	46
Amchem Products, Inc. ....	11
Beck Manufacturing Co. ....	10
Beseler Equipment Co. ....	32
Bowie Machine Works, Inc. ....	41
Charles Machine Works ....	8 and 9
Colloidal Products Corp. ....	3rd Cover
Diamond Shamrock Co. ....	6 and 7
E. I. duPont de Nemours & Co. ....	4
Febco, Inc. ....	16
Gieringer Manufacturing Co. ....	23
Hercules, Inc. ....	25 and 34
H. D. Hudson Manufacturing Co. ....	24
Hyacinth Control Society ....	40
Hypro, Inc. ....	23
Jacklin Seed Co., Inc. ....	54
Lindig Manufacturing, Inc. ....	49
Lofts-Chandlerin Seed ....	31
Mock Seed Co. ....	53
Mott Corporation ....	31
Niagara Chemical Div., FMC Corp. ....	19
John I. Nunes Mechanical Harvesting Company ....	47
Northrup King & Co. ....	51
Pioneer Saws, Ltd. ....	35
Ra-Pid-Gro Corporation ....	37
Rowco Manufacturing Co., Inc. ....	53
Ryan Equipment Co. ....	3
Stihl American, Inc. ....	2nd Cover
Tuco Products Co. Div., Upjohn Co. ....	27, 28, 29, 30
Turf Vac Corporation ....	37
U. S. Borax & Chemical Corp. ....	4th Cover
Veliscol Chemical Corp. ....	12 and 13
Vermeer Manufacturing Co. ....	33
Wheel Horse Products, Inc. ....	17

**COMPATIBILITY!**



**for liquid fertilizer-pesticide mixtures**

COMPLEX is compatibility! COMPLEX dramatically improves the stability of fertilizer-pesticide mixtures, thus insuring their safe, effective, simultaneous application. COMPLEX is essential if the equipment used has poor or no agitation. It's often necessary with equipment having good agitation. For further information see your Ag Chem Supplier or write:



Box 667 Sausalito, CA 94965 • Phone: (415) 332-0974

50 Years of Agrichemical Adjuvant Research and Development

...the mixer