

HOT TOPICS

2,4-D re-registration progressing slowly

A special Task Force's six-year testing effort should wrap up by year's end. Data shows no evidence linking the herbicide with ill health.

by Ron Hall,
Senior Editor

WASHINGTON—The widely-used herbicide 2,4-dichlorophenoxyacetic acid (2,4-D) is going to be around for a while longer, possibly a long while longer.

Although nobody on the 2,4-D Task Force (certainly nobody with the U.S. EPA) came right out and said so at a recent, one-day 2,4-D status briefing here, that's the feeling that the 65 participants left with at afternoon's end.

The reason for this guarded optimism is based on what researchers have found regarding 2,4-D.

More accurately, it's based on what they *haven't* found: 2,4-D produces no significant adverse effects to human health or the environment, emphasized Task Force researchers.

By year's end, the Task Force should complete tests required for the molecule's re-registration, according to Larry E. Hammond, chairman of the Task Force's Technical Committee. Testing is about 85 percent complete.

"Are we serious about this?" asks Hammond rhetorically. "Yes, we are. The cost for data development is going to be in the range of \$22 million."

Task Force members are: Agro-Gro, DowElanco, Nufarm U.S.A. and Rhone-Poulenc. They all produce 2,4-D. They're supporting three forms of the compound: 2,4-D acid, 2,4-D dimethylamine salt (SMAS) and 2,4-D ethylhexyl ester (2EHE).

The EPA is wading through the data. It will probably take the Agency until 1997 or 1998 to issue a Re-registration Eligibility Decision (RED) on 2,4-D, says Hammond.

Only then will the EPA begin looking at 2,4-D, product by product. That's because it is usually used in combination—especially on turf—with fertilizer or other herbicides.

In one form or another, 2,4-D is used by farmers, turfgrass managers, and more than a dozen other user groups (including homeowners) to control broadleaf weeds. Actually, it's use on turfgrass is tiny compared to its use in crops such as wheat, corn and soybeans.



Larry Hammond, left, and William Mahlberg said EPA-mandated toxicological studies showed no problems with 2,4-D.

It's believed to be the most widely used herbicide in the world, and the third-most popular in the U.S. More than 45 million pounds of 2,4-D were applied in the United States last year alone. And its use is still growing, partly because of increased no-till (or low-till) farming, and partly because no weed resistance has as yet been recorded for 2,4-D. Because of this, and because of cost, it's commonly combined with other herbicides.

Dr. Philip Szmedra, an agricultural economist with the USDA, says losing 2,4-D in field crops and fruit and nuts would cost U.S. farmers about \$1.1 billion a year, and banning all phenoxy herbicides would cost about \$1.4 billion. (A study in Canada estimated the loss there at \$500 million.)

The losses reflect factors such as reduced yields and the cost of alternative weed controls. Economic losses from turf and some other so-called minor uses aren't yet calculated, Szmedra says.

Cancer studies still draw fire

WASHINGTON—Dr. Rebecca Johnson thinks peoples' memories generally aren't accurate enough to drive cancer studies.

She came to that conclusion after re-examining a 1993 National Cancer Institute (NCI) Iowa/Minnesota Case Control study that suggested a link (albeit a weak link) between farmers' exposure to 2,4-D and non-Hodgkins lymphoma (NHL).

Johnson says studies relying so strongly on the memories of victims lend themselves to miscalculations. The

data becomes even more suspect when the memories of victims' families are relied upon. Relatives, in fact, tended to report more exposure to 2,4-D, than the cancer victims themselves had in earlier surveys.

Also, the records of cooperatives where farmers bought their pesticides often did not match up with the farmers' or their proxies' recollections of what products had been purchased and used. There was agreement only 60 percent of the time in the use of 2,4-D.

continued on page 32



Dr. Rebecca Johnson doesn't think peoples' memories provide accurate data for 2,4-D/illness studies.

CANCER from page 30

(Agreement 50 percent of the time would occur just by guessing.)

"A lot of people reported using 2,4-D when, in fact, they had not used it," she says.

"We shouldn't be doing the types of studies we have been doing where we're relying on people to recall from memory what pesticides they used over a number of years," she said. Johnson is assistant professor in the Department of Occupational and Environmental Health at the University of Minnesota.

Dow epidemiologist Dr. Geary W. Olsen is also critical of three prior NCI studies (Kansas, then Nebraska, and finally farm workers in Iowa/Minnesota), and also a canine study that linked 2,4-D exposure with cancers.

The findings of these studies—all relying on peoples' or proxies' memories—are contradicted by a Canadian study. That study followed the health of some Canadian farmers and their exposures from 1970 to 1985. Actually, it showed the farmers' cancer death rate being lower than the general population, notes Olsen.

The link between pesticides and farmer health is being investigated by yet another NCI study, the Agricultural Health Study, that will monitor the health of about than 110,000 farmers and their families in North Carolina and Iowa for the next 10 years.

"I think it will really dominate what's going to happen policy-wise with pesticides and epidemiology," says Olsen.

—R.H.

Rave reviews for sterilized manure soil amendment

by James E. Guyette,
Contributing Editor

JACKSON, Ohio—A soil amendment made from steam-sterilized horse manure is drawing praise from landscapers.

Known as Nea's Organic Compost or Nea's Posey Power (depending on the packaging), the manure first decomposes outdoors for 30 days. Weed seeds are then eliminated by steam sterilization. Additives include brewer's grain, gypsum, peat moss and lime.

The 80-day composting process is monitored by state-of-the-art computerized controls, according to Nea Henry, who is president of the southeastern Ohio firm.

"We came up with our own entire process, and it worked," she recalls. "The procedures are very exact."

The product, which contains no chemicals, has a number of applications, according to Henry:

- it rebuilds worn out soil;
- acts as a fertilizer;
- holds moisture during drought conditions;
- adds micro-organisms;
- breaks down clay soil;
- adds organic humus and builds up sandy soil.

At Ohio University in Athens, it was used to rebuild the athletic fields and golf greens. The product also was applied as a topdressing for new and established lawns and flower beds, plus it was used as a mulch around shrubs in the spring.

"We would highly recommend Nea's Organic Compost to anyone in this field," says Daniel H. Stright, OU's director of grounds maintenance.

Nea's "improves the structure of the soil remarkably and allows for better water-holding capacity and better air penetration in the clay soils we have in this area," he notes.

"This organic compost has the added value of being weed-free, and it is much cheaper than oak bark mulch," says Stright. He adds that the product is neutral as opposed to the bark's acid qualities.

"We have had many favorable comments on the fields, lawns and flower beds where the material has

been applied," Stright notes.

"Another great feature is the moisture-holding capacity," says Dave Junka, curator of the Franklin Park Conservatory and Garden Center in Columbus. "The same plants in beds without the compost required much more frequent waterings," he reports.

The Ohio Department of Natural Resources uses the mixture for its wild-flower program and for reclaiming old strip mines. The AmeriFlora exhibit in Columbus added Nea's to its blended soils.

Pricing varies according to market-place. (A topdressing spreader custom-designed for the product sells for \$250.) Henry will deliver via dump truck and semi-load within 400 miles. Otherwise it's shipped in 30-pound bags.

Nea's compost was born in the mushroom industry. When she used the product on her father's crop, the yield was 6 lbs./sq.ft. when the national average for mushroom growing was just 1.79 lbs./sq.ft. Campbell's Soup was so impressed that it bought the company, but Henry kept the "super mix" patent.

It's hard to think of horse manure as high tech, but the conversion process also reduces the smell. The air used during processing is filtered just like in hospitals. The humidity, barometric pressure and temperature is continuously controlled.

For more information: NEA Inc., P.O. Box 706, Jackson, OH 45640; phone (614) 286-1322.



Nea Henry says precision measurement plays a part in every batch of Posey Power compost.

Free movies and popcorn from LM at this year's Expo

LOUISVILLE, Ky.—The Premiere Video Theatre, sponsored by LANDSCAPE MANAGEMENT magazine, promises to be a big draw at this year's Expo '95 here July 30-Aug. 1.

The video theater will provide an opportunity for visitors to the show to see the latest innovations of selected exhibitors in a movie theater setting. Training and promotional videos will be shown in the East Hall of the Kentucky Exposition Center, and complimentary popcorn will be available.

Expo is sponsored annually by the Outdoor Power Equipment Institute. About 25,000 dealers, retailers, commercial end-users (including those in the green industry), rental equipment dealers, distributors, mass merchants, manufacturers' reps and exhibitors are expected to visit. They will come from the U.S. and 60 other countries.

Indoor exhibits are expected to cover 250,000 sq. ft. with an additional 560,000 sq. ft. of outdoor demonstration area.

Products on display will include powered and non-powered outdoor products for consumer, commercial and rental use.

Featured speaker is football legend Paul

Hornung, at the Early Bird Buffet Dinner, Saturday, July 29. Tickets to the buffet are \$28.50 each. To order, call (202) 775-8605 or write OPEEA, 1726 M St., NW, Washington, DC 20036.

Also available are tickets to Monday night's dinner concert starring Lorrie

INTERNATIONAL LAWN, GARDEN & POWER EQUIPMENT EXPO95 JULY 30 – AUGUST 1, 1995

Morgan and Three Dog Night. They cost \$35 per person.

Pre-registration to Expo '95 is free, but on-site registration is \$20. Phone (800) 558-8767. In Kentucky or outside of the U.S., phone (502) 562-1962. Fax number is (502) 562-1970.

An abbreviated schedule of events:

Saturday, July 29

3-5 p.m. - TSDA panel discussion
4:30-6 p.m. - Exhibitor reception
6-9 p.m. - Early Bird Buffet (Paul Hornung)

Sunday, July 30

8:30-10:30 a.m. and 2-4 p.m. - REAP seminars
11 a.m.-5 p.m. - Broadmoor Gardens & Conservatory tour
1-5 p.m. - Kentucky Derby Museum tour
2-3:30 p.m. - PLUS seminar
4-5:15 p.m. - International seminar
5-6:30 p.m. - Reception for exporters and international visitors

Monday, July 31

8-8:30 a.m. - Continental breakfast
8-10:30 a.m. and 2:30-4 p.m. - Free seminars
9 a.m.-4 p.m. - Shakertown tour
11 a.m.-2 p.m. - Star of Louisville luncheon cruise
Noon-2:30 p.m. - REAP seminars
2-2:30 p.m. - PLUS seminar
3-5 p.m. - NEADA's OPE Dealer Council meeting
4 p.m. - Treasure Hunt drawing
4-5:15 p.m. - Reception for rental seminar attendees
4:45-5 p.m. - Ultimate Garden Tool Giveaway
6-9:30 p.m. Expo dinner and Lorrie Morgan & Three Dog Night concert

Tuesday, Aug. 1

8-8:30 a.m. - Seminar breakfast
8:30-10:30 a.m. - PLUS seminars
8:30-10:30 a.m. - REAP seminars
9-11 a.m. - Free seminars: "Gardening in America" and "The 1990s Gardening Boom" study results

Oklahoma explosion causes fertilizer frenzy

by Terry McIver,
Managing Editor

WASHINGTON—The Federal Building explosion in Oklahoma City on April 19 resulted in questions being asked about the content and availability of "fertilizer," after it was reported that a truck full of the stuff was used in the explosion.

"You wouldn't believe it," says Ron Phillips, spokesman for The Fertilizer Institute, to describe the number of calls and questions he's received.

Much of Phillips' time has been used to explain the difference between the fertilizer that can be used in explosive charges and the kind that's used in agriculture.

According to a fact sheet distributed by the Institute, the chemical agent triggered in such explosions is ammonium nitrate, which is produced by chemically combining ammonia with nitric acid, followed by

a refining process.

As fertilizer (usually at a rate of 34-0-0), ammonium nitrate is used on wheat, grasses and pastureland, and in no-till cropping systems in the southeastern U.S.

"Fertilizer grade ammonium nitrate is a safe and stable product that will not explode when exposed to heat or fire," explains the Institute. "To use it in an explosive device requires exact mixing with explosive materials in a confined space by persons trained in chemical explosives who are intent on making an explosive device."

Phillips emphasizes that "ammonium nitrate (itself) is not explosive."

The type of fertilizer used in the Oklahoma City explosion is made from *industrial grade* ammonium nitrate, a low-density product that's produced specifically for blasting purposes, and is, in fact, classified as a blasting agent by the

U.S. Department of Transportation. To be rendered explosive, it must be "sensitized" with fuel oil or other carbon-rich material, and then detonated by heat shock or friction from a booster charge.

According to Phillips, counter-terrorism bills currently under consideration by Congress have required the Bureau of Alcohol, Tobacco and Firearms to try to find ways to make such a common chemical unusable in explosions. The ATF also must determine what kind of controls can and/or should be placed on the sale of ammonium nitrate, one of 60 known oxidizers (chemicals or elements which support combustion).

"We support that study and are cooperating with it," says Phillips.

For more information, contact The Fertilizer Institute at 501 Second St. NE, Washington, DC 20002, or call (202) 675-8250.

SUPPLIERS

CORNER

■ Prices on Bov-A-Mura liquid organic fertilizer will be going down, thanks to **PBI/Gordon's** efforts to build a plant here in the United States. Bov-A-Mura was previously only available by importing from England. "Prices will definitely be going down," says PBI's **Gary Custis**. "All the savings will be passed on to the end-user." The new plant will be constructed in Pittsburg, Kansas, one hour south of PBI/Gordon's Kansas City headquarters.

■ **The Scotts Company**, the official turf care sponsor for the U.S. Youth Soccer Association, will award \$25,000 in college scholarships to U.S.Y.S.A. high school seniors. It will also provide a program to help the association's member organizations improve and maintain their soccer fields.

■ Tom Cook of Oregon State University has been honored with **Seed Research of Oregon's** "Research Excellence" award. Jim Reinertson of Dedham Country and Polo Club in Dedham, Mass. won SRO's "Golf Course Superintendent of the Year" award. Also, SRO is now the official seed supplier for SMA Services Corp., a subsidiary of the Stadium Managers Association.

■ Tony Gustaitis, golf superintendent at Whitmarsh Valley Country Club in Lafayette Hill, Pa., won an expense-paid trip for two to the birthplace of golf—Scotland—from **American Cyanamid** earlier this year.

er this year.

■ **Sandoz Agro** has consolidated its Zoecon product line under the Sandoz Agro name. "[This] is a part of our strategy to become more aggressive and progressive in specialty markets," says **Carl Tanner**, director of marketing for specialty business.

■ **Pennington Seed Co.** recently received \$250,000 from the USDA for damages resulting from illegal actions against the company by the government six years. Because of a government order, Pennington had to destroy 200,000 pounds of its seed. It sought compensation from the government, which refused to pay.

■ **Parker Sweeper's** manufacturing facility has moved from Springfield, Ohio, to Hampshire, Ill., a suburb of Chicago. The new building has 200,000 square feet of manufacturing space, with plans for at least 50,000 more square feet.

■ **Scott Wanzor** of Duluth, Ga., has joined **Aquatrols** as southeast territory sales manager. The University of Georgia grad has more than 18 years of experience in the turf and ornamental market.

■ **Snapper Power Equipment** is introducing a limited number of products into 31 Home Depot stores in Texas. "This move into high-end specialty retailing is just one more step for Snapper in its continuing growth course," says Snapper president and CEO **Jerry Schewiner**.

■ **JaiTire Industries** and the City of Lancaster received the League of California Cities' Helen Putnam Award for Excellence for implementing Rebound Soil Amendment into the city's new athletic fields.

■ **Jim Crockett** is new to the **W.A. Cleary Chemical Corp.** as market development manager, horticulture products. The former ChemLawn employee holds a master of science degree from Auburn University.

■ **Winners of the Rain Bird Golf Division Freedom System Giveaway Contest:** Manuel Delgado, Liano, Calif.; Robert K. Ellis, Vero Beach, Fla.; Doug Falk, Litchfield, Mo.; Howard Hamaoa, Aiea, Hawaii; Larry C. Handle, Paducah, Ky.; Dan Higgins, Winchester, Mass.

■ A group headed by **Dick Cornelius** of Fort Collins, Colo. is new owner of **BlueBird International**, a lawn care equipment manufacturer. He bought the company from **Doug and Bev Zehrung**.

■ **Ernest E. Cook**, co-founder of Hypro Corp., passed away on April 7. He and **Harry J. Sadler** had started the company in 1947 and resigned in 1966.

■ **Garden Way's** new director of product management and research is **Gregory E. Best**; new product managers are **Kevin J. Connolly**, **Paul F. Denimarck** and **Brian E. Miller**; new associate product managers are **Denis J. Bedard** and **Thomas J. Klein**.

INFO-CENTER

Videos and literature for the green industry

EVERYTHING YOU ALWAYS WANT-ED TO KNOW ABOUT...horticulture is available from Timber Press. Its 1995 catalog includes "Trees & Shrubs for Temperate Climates," "Maples of the World," "Hardy Geraniums," "Plants for Groundcover," "Dictionary of Plant Names," and many, many more. To receive the catalog, phone (800) 327-5680.

URBAN PEST MANAGEMENT...The 1995 "Illinois Urban Pest Management Handbook" is now available from the University of Illinois, 67-UR Mumford Hall,

1301 W. Gregory, Dr., Urbana, IL 61801. Included are tips for insect, weed and disease control, pesticide applicator equipment and calibration references. Cost is \$10. You may also phone in your order to (217) 333-2007.

DESIGN PRODUCTS...For a wide range of products used in landscape design, you'll want a copy of LAfile '95. The file and binder is available for \$39.95 plus shipping and handling. It is indexed by product, trade name and company name, and contains information on CAD

and a Buyers Guide. To order, write to: LAfile, 4401 Connecticut Ave., NW, Fifth Floor, Washington, DC 20008-2369 or phone (202) 686-1001.

CREATIVE FINANCE...With the book "How to Finance a Growing Business," you get usable tips from Royce Diener, former CEO of a \$3.1 billion international corporation. Information covered includes: obtaining capital to start a new venture, calculating your need for working and growth capital, borrowing many times the company's worth, and using financial leverage. Price is \$24.95 for the 330-page trade paperback from Merritt Publishing and Nolo Press. To order: write Nolo Press, 1661 Ninth St., Santa Monica, CA 90406-0955 or phone (800) 638-7597.

continued on page 36

INFO-CENTER from page 35

PESTICIDE REFERENCE..."The User's Reference Guide to Pesticides" may be the handiest book you'll ever buy. Ag and hort products registered in the U.S. are listed by generic name, followed by the different formulations with their tank-mix, adjuvant and compatibility recommendations. The 200-page reference is priced at \$27.95 and available by writing Thomson Publications, P.O. Box 9335, Fresno, CA 93791 or phoning (209) 435-2163.

WAGES AND BENEFITS...Results of a survey on landscape wages and benefits conducted by the Associated Landscape Contractors of America is now available. For \$45 (\$25 for ALCA members), you can order a book containing all the survey results. Mail your check (plus \$3.50 shipping & handling) to: ALCA, 12200 Sunrise Valley Dr., Suite 150, Reston, VA 22091 or phone (703) 620-6363.

THE EARTH IS FINE!...For a mere \$2.50, you can order a new poster titled "The Earth is Fine!" from the National Anxiety Center, Box 40, Maplewood, NJ 07040. The poster boasts that it is "a guide to bogus environmental claims" from the ozone layer to pesticides, to clean water and endangered species. It also notes that "the EPA is now responsible for generating one-third of all federal regulations."

COMPOST STUFF...The "1995 Compost Organics Buyers Guide" is now available. It is designed to be used by lawn and landscape contractors, garden centers and nursery operators. Contents include information on equipment sources, consulting firms, extension offices, state regulations, site selection, and health and safety precautions. To order, send \$19.95 to Composting News/Buyers Guide, 8383 Mentor Ave., Suite 102, Mentor, OH 44060. For more information, call (216) 255-1454.

NOTES FROM ALL OVER

Now you can become a member

BELTSVILLE, Md.—The National Turfgrass Evaluation Program (NTEP) is now charging a \$30 annual membership fee. Members receive all NTEP reports produced in 1995. Exempt from the fee are university turfgrass faculty members and seed companies that enter grasses into NTEP tests.

Membership fees may be tax-deductible.

For more information, phone national program coordinator Kevin Morris at (301) 504-5125.

ALCA names Landscape Service winner

RESTON, Va.—Ron Kujawa of Kujawa Enterprises Inc., Cudahy, Wis., won the prestigious Landscape Service Award from the Associated Landscape Contractors of America. He was recognized for his extensive service to the green industry via his ALCA leadership positions, for his example as head of a successful landscape contracting company, and for being a co-founder and past president of the Green Industry Exposition.

KEI has been in business since 1970, and has been an ALCA member since 1972

Environmental buys Moss

HOUSTON—Environmental Landscape Services is new owner of the Austin Division of Moss Landscaping.

"With this purchase, we now have 18 trucks, tons of equipment, and 77 professional people with many years of Austin Landscape know-how," notes Environmental president Charles Racusin, who is a member of LANDSCAPE MANAGEMENT's Editorial Advisory Panel.

A.C.R.T. promotes four

KENT, Ohio—Richard E. Abbott has been promoted from president to chairman of the board and chief executive officer of A.C.R.T., an urban and utility forestry firm. Dr. Elizabeth L. Buchanan was promoted to president and chief operating officer and Jeff A. Saltzman was promoted to executive vice president. Vice president Dr. Jay Abercrombie takes over as head of the Biological Services Department from Dr. Buchanan.

GREEN INDUSTRY EVENTS

JULY

12: Landscape and Nursery IPM Workshop, Stockbridge, Mass. Phone: Kathleen Carroll, (413) 545-0895.

13: Southern Illinois Nursery Association Summer Field Day, H.E. Nursery, Litchfield, Ill. Phone: Marge Clayton, (618) 675-3478.

16-19: Canadian Urban Forests Conference, Windsor, Ontario, Canada. Phone: (519) 255-6270.

19-20: Midwest Grounds Management Conference, Normal, Ill. Phone: Mike O'Grady, (309) 438-2032.

21-22: Midwest Grounds Maintenance Conference, Illinois State Univ., Normal, Ill. Phone: Professional Grounds Management Society, (410) 584-9756.

21-22: Sports Turf Association Annual Field Day, Globe Park, Hamilton, Ontario, Canada. Phone: David Smith, (519) 763-9431.

23-27: Association of American Seed Control Officials annual meeting, Hotel Marriott, East Lansing, Mich. Phone: Ken Rauscher, (517) 373-9753.

25: Midwest Regional Turf Field Day, West Lafayette, Ind. Phone: Bev Bratton, (317) 494-8039.

25-27: Penn Allied Nursery Trade Show, Fort Washington (Pa.) Expo Center. Phone: (800) 898-3411.

26: Georgia Turfgrass Field Day, Georgia Experiment Station, Griffin, Ga. Phone: Georgia Turfgrass Association, (404) 975-4123.

26-28: FNGA/ALCA Conference, Hyatt Hotel, Orlando, Fla. Phone: Lynne Rue at Florida Nurserymen and Growers Association, (407) 345-8137.

26-28: TPI Summer Convention, Omaha, Neb. Phone: Turfgrass Producers International, (708) 705-9898.

26-29: AAN/MNLA Convention & Trade Show, Minneapolis, Minn. Phone: American Association of Nurserymen, (202) 789-2900 or Minnesota Nursery & Landscape Association, (612) 633-4987.

28: ALCA Masters in Management seminar, Harbor Court Hotel, Baltimore. Phone: Elise Lindsey, Associated Landscape Contractors of America, (703) 620-6363.

30-Aug. 1: International Lawn, Garden & Power Equipment Expo (Expo 95), Kentucky Exposition Center, Louisville, Ky. Phone: (800) 558-8767.

30-Aug. 1: Texas Turfgrass Summer Conference, Corpus Christi. Phone: Shirley Duple, (409) 693-1656.