Soldat Wins PPI Fellowship

Douglas J. Soldat, Cornell Turfgrass Ph.D. candidate, was awarded the J. Fielding Reed PPI Fellowship. Dr. J. Fielding Reed (1912-1999) served as president of the Potash & Phosphate Institute (PPI) from 1963 to 1975. Throughout his career Dr. Reed always encouraged agricultural excellence and during retirement years he continued to speak for high standards in research, teaching, extension education, and in other phases of agronomic work. PPI began an annual program in 1980 that awards Fellowships to several deserving students in soil and plant science. Soldat is working toward a Ph.D. degree in Horticulture/Plant Science at Cornell. His research and dissertation, “The Source of Phosphorus in Runoff from Turfgrass,” examined the relationship between soil test P levels and P losses from turfgrass areas. In identifying the major sources of this loss, his hypothesis that microbial decomposition of clippings is a major factor. Born in Wisconsin, Doug earned his B.S. and M.S. degrees at the University of Wisconsin-Madison. His aspirations include teaching and research at the university level to contribute further to the understanding of how P and K cycle in turfgrass systems.

Diaz Receives Award

Maria Derval C. Diaz won Third Prize for Oral Presentation in the Graduate Student Paper Competition at the 2005 Eastern Branch meetings of the Entomological Society of America, held March 20-22 in Harrisburg, PA. Her paper, co-authored with Dan Peck, Turfgrass Soil Insect Ecologist at Cornell’s Agriculture and Agri-cultural Experiment Station in Geneva, NY, was titled “Population Fluctuations of the Annual Bluegrass Weevil in Golf Course Landscapes.” This is a high honor for Maria in a very competitive contest. She is pursuing her M.S. degree with Professor Peck investigating the ecology of annual bluegrass weevil.

Calendar of Upcoming Events

November 15-17, 2005
Empire State Green Industry Show (formerly the NYSTA Turf and Grounds Exposition)
Rochester Riverside Convention Center, Rochester, NY
Info: NYSTA (518) 783-1229 or (800) 873-8873
http://www.nysta.org/greenshow/home.html
(Trade show info)
http://www.nysta.org/greenshow/program.htm (conference info)

February 1, 2006
2006 Turfgrass Advocacy/NYSTA’s Lobby Day
Empire State Plaza, Albany NY
Info: NYSTA (518) 783-1229 or (800) 873-8873

February 27, 2006
Southeast Regional Conference
Marriott Westchase, Tarrytown NY
Info: NYSTA (518) 783-1229 or (800) 873-8873

March 3, 2006
Western Regional Conference
Buffalo/Amherst Marriott, Amherst NY
Info: NYSTA (518) 783-1229 or (800) 873-8873

March 30, 2006
Aidronack Regional Conference
Lake Placid Resort, Holiday Inn, Lake Placid NY
Info: NYSTA (518) 783-1229 or (800) 873-8873

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In a highly debated study, a small increase in the incidence of a type of blood cancer called canine lymphoma was observed in pet dogs whose owners had been exposed to 2,4-D. This increase was seen only in the dogs that were allowed access to areas that had been treated with 2,4-D. However, this study relied on homeowners to remember that pet dogs that had used years ago, and was criticized for the lack of information on the actual exposure of the dogs to 2,4-D and other lawn chemicals. 2,4-D may act with other carcinogens to “promote” lung tumors in mice. Urethan is a known carcinogen. Mice that were exposed to a commercial formulation of 2,4-D in drinking water, followed by an injection of urethan, developed more lung tumors than the mice that were injected with the same carcinogen, but not given 2,4-D.

Human Cancer Risk

There are no reports that indicate a direct link between 2,4-D exposure and cancer in humans. However, there is some concern about higher rates of a type of cancer called non-Hodgkin’s lymphoma among farmers, agricultural workers, manufacturing workers, and pesticide applicators who were previously exposed to 2,4-D. But results from different studies are not consistent. While one half of the studies indicated higher rates of non-Hodgkin’s lymphoma among populations exposed to 2,4-D, the other half did not. Often in these studies, 2,4-D exposure was accompanied with exposure to many other chemicals, including other pesticides and disinfectant contaminants of 2,4-D. This makes it difficult to assess whether exposure to 2,4-D, some other chemical, or another factor caused the increase in cancer rates reported in some of the studies. The incidence of non-Hodgkin’s lymphoma needs to be followed further in studies of workers who were exposed to 2,4-D during its manufacture or application.

Most studies have not found a relationship between exposure to the group of chlorophenoxy herbicides and the development of a type of cancer called soft-tissue sarcoma in humans. These studies did not look at exposure to 2,4-D alone, but included populations exposed to 2,4-D and other related herbicides.

Conclusions

Current evidence does not indicate that exposure to 2,4-D is linked with an increase in the incidence of breast cancer in humans or in experimental animals. The few studies of women who were exposed through their occupation to 2,4-D and other chemicals have not shown an increase in the incidence of breast cancer. 2,4-D fed to experimental animals over long periods of time did not cause an increase in the incidence of breast tumors. There is very limited evidence that 2,4-D can act as a tumor promoter and affect the immune system. Further studies are needed to understand these mechanisms and to determine if they affect breast cancer risk.

Renu Gandhi, Ph.D. and Suzanne Snedeker, Ph.D
Associate Director of Translational Research Program on Breast Cancer and Environmental Risk

Factors

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