

NEW STUDY SUGGESTS INSECTICIDE USE LINKED TO AUTOIMMUNE DISORDERS

Christine G. Parks, PhD, an epidemiologist with the National Institute of Environmental Health in Research Triangle Park, North Carolina, presented preliminary data from a study of women and farm history and insecticide use at the American College of Rheumatology annual meeting.

The data is considered preliminary because it has been published only as an abstract and presented at a conference. An article from Medpage Today outlines Parks' presentation to the conference.¹

Parks said that researchers examined 76,861 records of postmenopausal and predominantly white women ages 50-79.

Of the records, 178 women were eventually diagnosed with rheumatoid arthritis and 28 with lupus while an additional 7 women were diagnosed with both lupus and rheumatoid arthritis.

Parks said that the study included many women who lived and worked on a farm and that this alone did not appear to increase their risk of developing rheumatoid arthritis or lupus.

Researchers, however, discovered that compared to people who had never used insecticides, women who had mixed or applied insecticides regularly had double the risk of rheumatic disease. According to Parks, 46% of the cases occurred among women who had mixed or applied insecticides themselves.

Parks said the relationships held when the data were adjusted for other factors.

Studies have shown that insecticide use is very common in U.S. households and, Parks said, insecticides do not break down readily in the home environment.

While noting that her study is limited because it did not deal with specific products, Parks does say that "these environmental exposures may be risk factors that need to be studied more thoroughly."

¹ John Gever, Senior Editor, MedPage Today. ACR: Bug Sprays Linked to RA. October 22, 2009.

<http://www.medpagetoday.com/PublicHealthPolicy/EnvironmentalHealth/16572?pfc>

"We encourage farm women to make carefully informed decisions about the use of household insecticides and their safe application."

--Michael Rosmann, PhD
Executive Director, AgriWellness,
Inc.

**STUDIES LINK PESTICIDE
POISONING WITH DEPRESSIVE
SYMPTOMS IN FARMERS**

Cheryl L. Beseler, PhD, University of Nebraska Medical Center, and Lorann Stallones, PhD, MPH Colorado State University, presented the results of a study they conducted regarding the use of organophosphates by farmers and the incidence of depressive symptoms to the *Clock is Ticking for Rural America* Conference, August 2009.

The Colorado Farm Family Health and Hazard Surveillance (CFFHHS) was a cross sectional survey conducted from 1993 to 1997.

CFFHHS was a multi-stage area sample that included eight counties in Northeastern Colorado.

In this published study, pesticide poisoning was significantly associated with depression.

In subsequent papers, depression was associated with not exercising specific safety behaviors. Taken together, the evidence suggests that pesticide poisoning may result in depressive symptoms in susceptible individuals and may decrease a farm resident's exercise of certain safety behaviors which may lead to increased likelihood of work related injuries.

For more detailed information please visit:

<http://www.agriwellness.org/ConfInfo.htm>

“Specific neuropsychological symptoms, especially depression, have been associated with pesticide poisoning exposures and were more strongly associated with practicing safety behaviors than the degree of workload, social support or health status of farm residents.”

--Beseler, C. and Stallones, L (2006). Structural modeling of the relationships between pesticide poisoning, depressive symptoms and safety behaviors among Colorado farm residents. Journal of Agromedicine, 11(3/4) 35-46.