

## Abstract #301534

## Back to main JSM 2002 Program page

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Activity Number: 215

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**Date/Time:** Tuesday, August 13, 2002 : 12:00 PM to 1:50 PM

Sponsor: Section on Statistics & the Environment\*

Abstract - #301534

Title: Agreement Between Self-Reported Use and Observed Presence of Pesticides

And Its Relationship to the Odds Ratio

Author(s): W. Sieber\*+ and Lori Williams and J. Wilkins III

Affiliation(s): National Institute for Occupational Safety and Health and University of Illinois,

Chicago and Ohio State University

Address: 4676 Columbia Parkway, Cincinnati, Ohio, 45226,

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statistic

Abstract: Obtaining accurate information about the types of agents an individual may be

exposed to is important in studying the association between disease and exposure. The agreement between two methods of obtaining exposure data and its relationship to the odds ratio was investigated. Information on the number and type of pesticides used on crops was collected using a questionnaire and compared to the presence of pesticides noted during site visits to 71 farms. Kappa statistics for agreement between self-reports and

visits to 71 farms. Kappa statistics for agreement between self-reports and observation varied between 0 and 0.37, indicating poor to fair agreement. Odds ratios for the use of pesticide and presence of headache showed a positive relationship with the percent of concordant positive pairs (agent indicated both on questionnaire and observed). Odds ratios were reduced as additional positive responses from either the questionnaire or site visit were incorporated. Such results could be due to factors such as recall bias,

misclassification in completing questionnaires, or differing pesticide application and storage practices on farms, and indicate the difficulty often met obtaining

valid exposure data from a self-reported questionnaire.

• The address information is for the authors that have a + after their name.

Authors who are presenting talks have a \* after their name.

JSM 2002 Page 2 of 2

Back to the full JSM 2002 program

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