

Message

From: FARMER, DONNA R [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=180070]
Sent: 11/29/2001 2:07:23 PM
To: ACQUAVELLA, JOHN F [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=145465]
CC: GOLDSTEIN, DANIEL A [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=527246]; ARMSTRONG, JANICE M [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=597137]; HEYDENS, WILLIAM F [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=230737]
Subject: RE: the McDuffee article appears - glyphosate not mentioned in the abstract

John,

I know we don't know yet what it says in the "small print" - but the fact that glyphosate is no longer mentioned in the abstract is a huge step forward - it removes it from being picked up by abstract searches!

Donna

-----Original Message-----

From: ACQUAVELLA, JOHN F [AG/1000]
Sent: Thursday, November 29, 2001 7:54 AM
To: FARMER, DONNA R [AG/1000]
Cc: GOLDSTEIN, DANIEL A [AG/1000]; ARMSTRONG, JANICE M [AG/1000]; HEYDENS, WILLIAM F [AG/1000]
Subject: the McDuffee article appears - glyphosate not mentioned in the abstract
Importance: High

The McDuffee article appeared in the November issue of the journal *Cancer Epidemiology, Biomarkers, and Prevention* (see abstract below). Unlike the abstract presented at the International Society for Environmental Epidemiology meeting August 1999, Glyphosate is no longer mentioned as a risk factor in the abstract. I'll have to get the article and see what it says in "the small print."

John

Non-Hodgkin's lymphoma and specific pesticide exposures in men: Cross-

Canada study of pesticides and health

HH McDuffie, P Pahwa, JR McLaughlin, JJ Spinelli,
S Fincham, JA Dosman, D Robson, LF Skinnider, NW Choi
Article

1155-1163

Abstract: Our objective in the study was to investigate the

putative associations of specific pesticides with non-Hodgkin's

Lymphoma [NHL; International Classification of Diseases, version 9

(ICD-9) 200, 202]. We conducted a Canadian multicenter

population-

based incident, case (n = 517)-control (n = 1506) study among men in

a diversity of occupations using an initial postal questionnaire

followed by a telephone interview for those reporting pesticide

exposure of 10 h/year or more, and a 15% random sample of the

remainder. Adjusted odds ratios (ORs) were computed using conditional

logistic regression stratified by the matching variables of age and

province of residence, and subsequently adjusted for statistically

significant medical variables (history of measles, mumps, cancer,

allergy desensitization treatment, and a positive history of cancer

in first-degree relatives). We found that among major chemical

classes of herbicides, the risk of NHL was statistically significantly increased by exposure to phenoxyherbicides [OR, 1.38;

95% confidence interval (CI), 1.06-1.81] and to dicamba (OR, 1.88;

95% CI, 1.32-2.68). Exposure to carbamate (OR, 1.92; 95% CI, 1.22-

3.04) and to organophosphorus insecticides (OR, 1.73; 95% CI, 1.27-

2.36), amide fungicides, and the fumigant carbon tetrachloride (OR,

2.42; 95% CI, 1.19-5.14) statistically significantly increased risk.

Among individual compounds, in multivariate analyses, the risk of NHL

was statistically significantly increased by exposure to the

herbicides 2,4-dichlorophenoxyacetic acid (2,4-D; OR, 1.32; 95% CI

1.01-1.73), mecoprop (OR, 2.33; 95% CI, 1.58-3.44), and dicamba (OR,

1.68; 95% CI, 1.00-2.81); to the insecticides malathion (OR, 1.83;

95% CI, 1.31-2.55), 1,1,1-trichloro-2,2-bis (4-

chlorophenyl) ethane
(DDT), carbaryl (OR, 2.11; 95% CI, 1.21-3.69), aldrin,
and lindane;
and to the fungicides captan and sulfur compounds. In
additional
multivariate models, which included exposure to other
major chemical
classes or individual pesticides, personal antecedent
cancer, a
history of cancer among first-degree relatives, and
exposure to
mixtures containing dicamba (OR, 1.96; 95% CL 1.40-2.75)
or to
mecoprop (OR, 2.22; 95% CL 1.49-3.29) and to aldrin (OR,
3.42; 95%
CI, 1.18-9.95) were significant independent predictors of
an
increased risk for NHL, whereas a personal history of
measles and of
allergy desensitization treatments lowered the risk. We
concluded
that NHL was associated with specific pesticides after
adjustment for
other independent predictors.

John Acquavella, PhD
Senior Fellow, Epidemiology
Monsanto Company/A2NE
St. Louis, MO 63167
phone: [REDACTED]
cell phone: [REDACTED]
fax: [REDACTED]
e-mail: [REDACTED]@monsanto.com

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

TRIAL EXHIBIT 448

Case No. 3:16-cv-0525-VC

Date Entered _____

By _____
Deputy Clerk