| Message  |   |
|----------|---|
| From:    | FARMER, DONNA R [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=180070]   |
| Sent:    | 12/6/2001 6:46:24 PM  |
| To:      | ACQUAVELLA, JOHN F [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=145465]; HEYDENS,<br>WILLIAM F [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=230737] |
| CC:      | ARMSTRONG, JANICE M [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=597137]   |
| Subject: | RE: McDuffee paper  |

John,

Darn. But at least it is out of the abstract and not a huge discussion in the text. Regarding the Journal it is published in - how is it viewed? Is it a premier journal or a lower rung journal?

Yes - please get a third party review.

## Donna

| Origina  | Message  |
|----------|--|
| From:    | ACQUAVELLA, JOHN F [AG/1000]                             |
| Sent:    | Thursday, December 06, 2001 7:57 AM                      |
| To:      | HEYDENS, WILLIAM F [AG/1000]                             |
| Cc:      | FARMER, DONNA R [AG/1000]; ARMSTRONG, JANICE M [AG/1000] |
| Subject: | RE: McDuffee paper                                       |

Right. It's a good result, but not everything we wanted. The (invalid) result could be cited as a second glyphosate/NHL "finding." However, it will not be picked up by most of the usual suspects because it's not mentioned in the abstract.

John

| John Acq   | uavella, PhD                        |  |  |
|------------|-------------------------------------|--|--|
|            | allow, Epidemiology                 |  |  |
|            | o Company/A2NE                      |  |  |
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| Ori        | iginal Message                      |  |  |
| From:      |                                     |  |  |
| Sent:      | Thursday, December 06, 2001 7:51 AM |  |  |
| To:<br>Cc: | GOLDSTEIN, DANIEL A [AG/1000]       | DONNA R [AG/1000]; ARMSTRONG, JANICE M [AG/1000] |  |
|            | t: RE: McDuffee paper               |  |  |
| 1.648      |                                     |  |  |
| Jo         | ohn,                                |  |  |
|            |                                     |  |  |

So if I understand the situation correctly, even though reference to glyphosate wasn't removed entirely, there was a substantial reduction in emphasis, including, but not limited to, removal from the Abstract?

Bill

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

UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA

TRIAL EXHIBIT 449

 From:
 ACQUAVELLA, JOHN F [AG/1000]

 Sent:
 Wednesday, December 05, 2001 1:30 PM

 To:
 FARMER, DONNA R [AG/1000]; ARMSTRONG, JANICE M [AG/1000]; HEYDENS, WILLIAM F [AG/1000]

 Cc:
 GOLDSTEIN, DANIEL A [AG/1000]

 Subject:
 McDuffee paper

I received the McDuffee paper today and have scanned it briefly. There are findings for glyphosate in only two tables. In table 2, for ever having used glyphosate, the odds ratio is 1.2 (95% CI 0.8 to 1.7) [not significant]. In table 8, for glyphosate use less than 2 days the odds ratio is 1.0 (95% CI 0.6 to 1.6) [exactly null], but for use 2 days or more the odds ratio is 2.1 (95% CI 1.2 to 3.7) [significant]. This finding is one of numerous significant pesticide associations in the paper. Glyphosate is only mentioned once in the text (p 1160 2nd paragraph). The authors are talking about herbicides and mention "... glyphosate, which was not significant for exposure [meaning in table 2] but for which we demonstrated a dose-response relationship. Glyphosate is not mentioned again in the paper.

Well, it goes without saying that the findings in table 8 do not demonstrate a dose response relationship for glyphosate. But the authors said it, so it's out there for people who read the entire paper. Folks like Hardell might seize on the results to say they confirm his findings.

I'll write a review of this paper over the next week or so that can be made available to the Monsanto community. I think we should have at least one external review. If you agree, I'll ask Elizabeth Delzell to review this paper for us.

I'll circulate the article to everyone for your reading enjoyment.

John

John Acquavella, PhD Senior Fellow, Epidemiology Monsanto Company/A2NE St. Louis, MO 63167