Donna,

Thanks for the info.

Teng and Chang, let's meet on May 28, morning to determine our rebuttal and other communication. Teng, we could use Prestige Communication to handle the media part and I am leaving the contact to you.

Rgds...LAH

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Subject: Popular herbicide Linked To Cancers
Author: DONNA R FARMER at MONSL125
Date: 6/22/99 3:58 PM

Rich and all:

In response to your e-mail request for information on what we call the "Swedish or Hardell study." John Acquavella and I have been doing the technical work on this issue. Here is what we have been sending around when we receive information requests.

Let us know if you have further questions or need additional help.

Best Regards,

Donna

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Please find below an update on the situation

Also please note the following 3 attachments:

critique.doc
letter.doc
newscientist.doc

Please don't hesitate to contact us if you need additional information.

Donna and John
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WHAT WAS THE EPIDEMIOLOGIC PUBLICATION LINKING GLYPHOSATE AND NON-HODGKINS LYMPHOMA (NHL)?

In April 1999, a Swedish epidemiologic study entitled "A Case-Controlled Study of Non-Hodgkin's Lymphoma and Exposure to Pesticides" was published
in the journal Cancer, by Lennart Hardell. This study found statistically
sic associations between NHL and reported use of fungicides and
herbicides. "Reported use of" glyphosate, along with reported use of
several other herbicides, showed a weak, not statistically significant
association with NHL. Despite the obvious weakness of the paper (detailed
below), the finding was rapidly picked up in the popular press (e.g. New
Scientist) and became the basis for allegations against the safety of
Roundup herbicides and, indirectly, against Roundup ready crops.

WHO IS [REDACTED]? 

[R] has a long history with Monsanto. Our former colleagues in Solutia
tell us that "[REDACTED] hates Monsanto." [REDACTED] started the controversy over
dioxin and soft tissue sarcoma 20+ years ago based on some flawed
epidemiologic research. He also worked to link Agent Orange to cancer based
on its presumed dioxin content. [REDACTED] continues to be an expert witness
against Solutia in toxic tort cases. Dr. Ralph Cook, the retired Medical
Director of Epidemiology at Dow Chemical, told us that [REDACTED] is very
arrogant. He has a history of resorting to ad hominem attacks when
challenged by industry, so if he feels threatened he may resort to linking
us with old allegations made against Monsanto Chemical Company (on dioxin,
PCBs and the like). Our Monsanto registration manager in Sweden has
indicated that [REDACTED] is personally calling the journalists to inform them
of his study.

[R] likes being in the middle of controversial issues. He recently
released a report linking the use of mobile phones and brain tumors.

WHAT IS INDUSTRY DOING?

A Swedish industry group, IVT, has been trying to arrange a meeting with
[REDACTED]. June 1, 1999, IVT received a letter from [REDACTED] in which he
claimed too be too busy to meet with industry in June, July and August.

WHAT IS THE CONCLUSION OF OUR INTERNAL EXPERT REVIEW OF [REDACTED]'S PAPER?

Our Monsanto epidemiologist, John Acquavella, has reviewed the NHL paper
and prepared the attached critique (critique.doc). The study was found to
have several important limitations including reliance on memory of
pesticide use from subjects or their next of kin, inability to control for
confounding factors, and the very small number of subjects reporting
glyphosate use (4 cases). Dr. Acquavella has concluded that the alleged
findings are inconsistent with what is known about glyphosate, and that
systematic error or chance seem to be the most likely explanations for the
glyphosate findings in this study.

IMPACTS TO DATE?

We are not aware of any documented impact on business. What we do know is
the story has been picked up in the popular press. It is also being used
against us by groups such as Greenpeace, and it has resulted in numerous
inquiries around the world.

Feedback from the UK and Swedish regulators indicates that they don't
consider the study to be a credible basis for changing their position on
glyphosate-containing products.

WHAT HAVE WE DONE TO DEFEND GLYPHOSATE?

Monsanto scientists and a Yale M.D. collaborated to submit a letter to the
editor of Cancer critiquing the [REDACTED] paper (see attachment -
letter.doc). The letter has been accepted for publication and will appear
in the August 15th edition. In addition our former medical director in
Europe and two consulting European scientists collaborated to submit a
letter to the editor of the New Scientist (see attachment -

We have supplied technical support to Monsanto PR, regulatory and business
representatives around the world. In addition we have circulated the
critique of the paper and the letters to the editors to relevant parties.

We are creating a scientific outreach network of prominent epidemiologists
in Europe and the U.S., including [REDACTED] (Harvard/Greece)
and Harvard/Sweden), who will assist us in defending glyphosate. We are planning meetings with them and with four prominent epidemiologists in each of the following areas: UK (this meeting is set for August 17th), Scandinavia (targeting Sept.), Italy/Greece (targeting August), Netherlands/France/Germany (targeting Sept.) and the US (targeting October). The purpose of these meetings is to raise awareness of the limitations of [redacted]'s research and gain support for glyphosate in the epidemiologic community worldwide.