



CANADIAN CORN PEST COALITION

LA COALITION CANADIENNE CONTRE LES RAVAGEURS DU MAÏS

June 22, 2011

News Release Re:

Maternal and fetal exposure to pesticides associated to genetically modified foods in Eastern Townships of Quebec, Canada

Aziz Aris & Samuel Leblanc

Reproductive Toxicology, Volume 31, Issue 4, May 2011, Pages 528-533

"It is well described in the literature that Cry protein like all proteins is digested by protein-degrading enzymes and the acid conditions in our stomachs. This is a critical test that all GM crops containing the Bt protein must pass before they are approved by regulatory authorities including Health Canada. In that context, it is surprising that the authors report Cry protein present in a high frequency in the blood of the women tested. There are some studies of this question in animals and there has been no evidence that the protein was found in blood using sensitive, validated methods. This immediately draws attention to the analytical method used in the study by Aris & Leblanc. Enzyme-linked immunosorbent assays (ELISA) are very useful tools, widely used in labs and in commerce for preliminary screening of many compounds. When the results are unexpected, they always must be confirmed by analysis with an instrument; usually a mass spectrometer. The commercial ELISA test used in the study was developed and confirmed to detect Cry 1Ab in corn plant tissue. It was not designed, or tested to detect Cry 1Ab in blood serum. It is surprising that the reviewers of the manuscript and editors did not require that the assay used for corn was valid for tests of human sera. There are many proteins commonly found in blood serum that could interfere with the test, resulting in false positive results. Challenges with matrix effects for ELISA tests are reported in the literature within the crop plants. This study cannot be properly evaluated until the results are confirmed by an independent, unequivocal method. This underscores the importance of researchers to carefully consider all aspects of their work before it is published and emphasizes the need for journals to be vigilant."

Art Schaafsma, PhD

Chair of the Canadian Corn Pest Coalition

Professor Field Crop Pest Management

Department of Plant Agriculture

Campus Director

Ridgetown Campus, University of Guelph

120 Main St East, Ridgetown, Ontario N0P 2C0

CANADA

aschaafs@ridgetownc.uoguelph.ca