



Health and Welfare Canada
Santé et Bien-être Social
Canada

Health Protection Branch
Direction générale de la
protection de la santé

Environmental Health Centre
Tunney's Pasture
Ottawa, Ontario
K1A 0L2

July 31, 1985

Our Ref. BCH

J. Taylor,
Pesticides Division,
Plant Health and
Plant Products Directorate,
Agriculture Canada,
K.W. Neatby Building,
960 Carling Avenue,
Ottawa, Ontario,
K1A 0C6

Dear Mrs. Taylor:

RE: Special sensitivity to adverse effects of pesticides

The Pesticides Division of the Environmental Health Directorate has been informed of a special sensitivity to pesticides by 2 indirectly exposed persons.

Mr. Chris Brown, Apt. 4 at 190 Powell Avenue, Ottawa K1S 2A5, with whom you already talked by telephone on January 29, 1985, reported adverse reactions experienced about a week ago from an indirect exposure to diazinon after spray equipment had been cleaned, and the rinse discarded about 10 feet from his apartment windows which has a southern exposure (with high temperature during mid-day). He experienced symptoms of nausea, disorientation, and muscle spasms of the right hand and wrist.

Ms. Martha Phemister, 174 Stanley Avenue, Ottawa, K1S 2A5, was exposed to a water-soluble form of diazinon at work on a Monday in January 1985 following treatment of document storage facilities to control silverfish, on the previous Saturday. Within $\frac{1}{2}$ hour of exposure to the air of the treated rooms she developed flu-like symptoms, chest constriction, raspy voice, disorientation and loss of coordination. She reportedly experienced similar symptoms in May 1985 after a nearby park was sprayed with 2,4-D.

Both persons noted that the present precautionary pesticide labelling scheme does not take into account a possible unusual sensitivity of certain persons to pesticides.

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It may be tempting to dismiss such reports as rare idiosyncrasies of little consequence, but the medical literature does contain reports such as those of Rea, W.J., 1978: Environmentally triggered cardiac disease, in: Annals of Allergy 40: 243-251, and of several accidental poisonings with Deet insect repellents in female children suffering from metabolic disorders such as enzyme deficiencies (ornithine carbamyl transferase deficiency) milk intolerance, etc. which document severe clinical responses by susceptible individuals to exposures which would not have an adverse effect on most of the population. The implications of these individual differences for setting safety factors have recently also been examined by E.J. Calabrese in, Regulatory Toxicology & Pharmacology 5:190-196 (1985).

It may therefore be appropriate to refer this problem to the Canadian Association of Pesticide Control Officials for consideration and advice concerning supplementary labelling of all pesticides which would make users aware of possible adverse reactions in unusually susceptible individuals.

I would be grateful for you comments on this problem.

Sincerely yours,



Dieter Riedel, Ph.D.
Head, Reassessment Section
Pesticides Division

cc: Mr. C. Brown ✓
Mrs. M. Phemister