



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: Response to Monsanto letter of Aug. 10, 1990
pertaining to Dithiopyr.

FROM: James W. Akerman, Branch Chief,
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C)

TO: Joanne Miller, PM-23
Fungicide-Herbicide Branch
Registration Division (H7505C)

AUG 20 1990

We've reviewed the August 10, 1990 letter from Monsanto Company. The label restrictions and reduced application rate brought forth in the letter mitigate hazard to aquatic organisms. However, these changes do not negate the data requirements identified in the March 7, 1990 EEB Chemical Standard. More importantly, EEB wishes to reiterate that our primary concern is for terrestrial hazard because of turf application which may result in adverse affects to the terrestrial environment. Aquatic risk concerns appear to be secondary. It was established at our meeting with Monsanto representatives on August 9, 1990 that the EC formulation of Dithiopyr has an average half life of 17 days, but extends up to 49 days. Because of the physical nature of dithiopyr, EFGWB describes it as having a high tendency to bind to soil, thus Dithiopyr could be taken up by birds during ground foraging. With the above information we can conclude that the use of Dithiopyr will most likely result in long term exposure to birds, mammals, and other terrestrial vertebrates, even with one application.

The guidelines for requiring the avian reproduction studies are outlined in 40 CFR part 158 section 145. Any one of the criteria (summarized below) triggers the need for avian reproduction studies. The EEB considers criteria (1) and (2) pertinent to Dithiopyr.

(1) When birds may be subject to repeated or continued exposure of a pesticide and/or its derivatives, especially before or during the breeding season.

(2) When the pesticide or its derivatives are stable in the environment to the extent that potentially toxic amounts may persist in avian feed.

2.

(3) When the pesticide or its derivatives have a tendency to be stored in plant or animal tissues.

or

(4) If information from mammalian chronic studies indicate that terrestrial vertebrates may be adversely affected.

Dithiopyr is a completely new chemistry developed by Monsanto Company. Its use may likely result in long term exposure for terrestrial organisms and we have no data, avian or mammalian, for which to assess chronic risk.