

MEMO (Note: Specific Reference to Parties Involved Deleted)

To: Henry Jennings, Maine Dept. of Agriculture  
From: John Glowa, Maine DEP Water Enforcement  
Date: May 15, 2008

On May 6, 2008, I received a phone call from a citizen regarding the spreading on that date of a fertilizer/herbicide mix containing Dimension® (dithiopyr). The caller expressed concern about having a sick dog, the toxicity of dithiopyr to fish, and its application in close proximity to residences, stormwater drainages, and surface water.

On that same date, I telephoned and emailed the applicator. The following day, the applicator sent me an email describing their work at the site. On May 8, he sent me additional information (a copy of Section 6 of Chapter 29 Board of Pesticides Control *Standards for Water Quality Protection*) and stated in an email, "We feel we are in compliance with these requirements."

On May 9, 2008, I visited the site. I observed the following:

- 1) The fertilizer containing dithiopyr had been spread on many of the lawn areas. In some areas, it had been spread adjacent to or within a few feet of stormwater drains and culverts.



The material was spread throughout this lawn area. During wet weather, water from the lawn is intended to drain through this culvert and into Penobscot Bay.



The material was spread throughout this lawn area directly upslope of a storm drain.



The material was spread throughout this lawn area immediately adjacent to this discharging pvc pipe. Note the surface water.

2) I also observed this material spread around a well. I do not know if the well is in use. (Note: The EPA Pesticide Fact Sheet for dithiopyr states, “It has little to no potential for ground water contamination.”)



The area around the well is a depression. Note the granules on the ground.

3) I observed some of this material twenty one feet from standing water in a wooded wetland.



The material was spread on this lawn area. In the background is skunk cabbage with adjacent standing water. The water is 21 ft. away and downslope from the nearest granules.

The purpose of this memo is to bring this matter to your attention, given the fact that Chapter 29 *Standards for Water Quality Protection* is silent with regard to the application of pesticides/herbicides such as dithiopyr in many areas including those in and adjacent to stormwater drains/ditches, swales, culverts and intermittent streams, all of which may contain or drain to waters of the State. As you know, Title 38 M.R.S.A. § 413.1 states, “License required. No person may directly or indirectly discharge or cause to be discharged any pollutant without first obtaining a license from the department (of Environmental Protection).” As a chemical, dithiopyr meets the definition of pollutant. Any unlicensed discharge of pollutants to waters of the State is a violation of Title 38 M.R.S.A. § 413.1 and subjects the discharger to possible monetary penalties that may range from \$100-\$10,000 for each day that a discharge occurs.

The MSDS sheet for the fertilizer/dithiopyr mix states in part, “Toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters, unless product is specifically identified and addressed in a NPDES permit.” The precautionary statement states in part, “This product is toxic to fish and highly toxic to other aquatic organisms including oysters and shrimp. Use with care when applying to turf areas adjacent to any body of water. Drift and runoff from treated turf may adversely affect aquatic organisms in adjacent aquatic sites. Do not apply directly to water, or to areas where surface water is present...”

The EPA Pesticide Fact Sheet for dithiopyr issued June 18, 1991, states that, “the half-life of dithiopyr in soil was determined to be 444.3 days.” It also states, “Surface water contamination from soil containing dithiopyr would be expected.” Based on my understanding of the EPA Fact Sheet and my observations at the site, it appears that the discharge of dithiopyr from the site to waters of the State may occur, and for a significant period of time. It also appears that compliance with the buffer requirements in Chapter 29 may not be adequate to prevent this from occurring.

## Questions

- 1) What policies/procedures/protocols, if any, does the Maine Dept. of Agriculture have to determine that application of pesticides/herbicides does not result in a discharge of pollutants to waters of the State in violation of Title 38 § 413.1? If yes, what, if anything, will Ag do to determine if a violation of 413.1 occurs at the site?
- 2) Section 6 of Chapter 29 does not appear to address the application of pesticides in and adjacent to areas that drain to waters of the State, such as drainage swales, storm drains, and intermittent streams. Are there any plans to correct this problem?