

# DRAFT

## MONITORING THE PERSISTENCE AND MOVEMENT OF FENAMIPHOS (NEMACUR) IN LILY BULB FIELD SOILS IN DEL NORTE COUNTY

### I. OBJECTIVES

- A. To test various hand sampling methods for collecting undisturbed samples from the rocky soils of the Smith River plains.
- B. Collect soil core samples at various depths from fields treated with fenamiphos.

### II. PERSONNEL

This study will be conducted by EHAP personnel under the overall supervision of Don Weaver. ALL INQUIRIES REGARDING ANY FACET OF THIS STUDY SHOULD BE DIRECTED TO MARY BROWN AT (916) 324-8916, ATSS 454-8916.

### III. MONITORING PLAN

Soil core samples will be taken from lilly bulb fields that were treated with fenamiphos in the fall of 1985. Several fields that are representative of the area where ground water contamination by other nematocides has occurred will be selected for sampling.

Because of the rocky and gravelly nature of the subsoils in the area, it is not possible to use the Mobil Drill truck mounted sampling system for deep soil coring. Various combinations of a Veihmeyer tube, a gasoline powered post hole digger, a split barrel sampler and shovels will be

tested for taking undisturbed soil core samples to a maximum depth of six feet.

Once a satisfactory method has been developed, soil core samples will be collected from the surface to a maximum depth of six feet in six treated fields. Samples will be collected from portions of the field where the fenamiphos was applied.

Each soil sample will be placed in a 1 pint mason jar with a screw cap lid and aluminum foil liner and stored on dry ice immediately after collection. A chain of custody form will accompany each sample to document its location in the soil profile and the location and date of collection. A maximum of 72 samples will be collected and analyzed for fenamiphos, sulfoxide and sulfone. Analyses will be conducted by the CDFA Chemical Services Branch in Sacramento. The percentage of moisture in each sample will also be determined by the laboratory.

The data collected from this study will be useful in determining if fenamiphos moves rapidly through the soils in the Smith River plains and may pose a threat to ground water supplies. Other nematocides have been detected in ground water and are thus no longer available for use by the lilly bulb industry.

#### IV. Budget

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| Personal Expenses  | 1,400 |
| Operating Expenses | 500   |