



**RIFA Environmental Monitoring Field Notes
Environmental Hazards Assessment Program
Environmental Monitoring Branch
Department of Pesticide Regulation
1001 I Street, Sacramento, CA 95814**



Trip Date: May 24, 2001

At the request of Bill Osterlein, Riverside County Ag., Environmental Monitoring and Enforcement staff met to assess potential runoff and aquatic toxicity in Lake Elsinore if the lakeshore were treated with hydramethylnon and pyriproxyfen baits.

The following county and state staff were present:

Bill Osterlein and Hugo Soto, Riverside County Ag.

Mohammed Zubaidy and Adrian Gonzales, CDFA PDEP

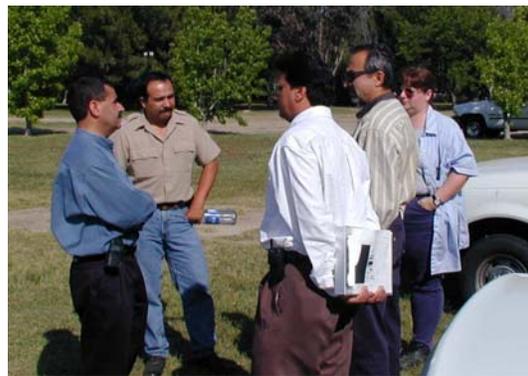
Jahan Motakef, Bhupinder Dhillon and Peggy Byerly, DPR-ENF

Dave Kim, DPR-EM

Lake Elsinore is a recreational lake in Riverside County. RIFA infestations have been found along north and east shores, approximately 7 miles of shoreline. In the infested area there are two drains entering the lake, with intermittent flows. The average total rainfall from mid July to mid September is 0.32 inches (1). The shoreline consists of many individual private parcels, mostly undeveloped. Lake Elsinore is considered a warmwater fishery with Large-mouth bass, various panfish, Channel Catfish and Crappie. Large fish kills are common during the summer caused by low dissolved O₂ due to high water temperature and algae.

Hydramethylnon and pyriproxyfen are the two baits used for the eradication of RIFA in public and residential areas.

The acute LC₅₀ for Channel Catfish is 0.10 mg/l for hydramethylnon, other tested fish species are less sensitive as are the aquatic invertebrates (2). Pyriproxyfen is similar in its toxicity to aquatic species.



Mohammed, Hugo, Bhupinder, Jahan & Peggy.

The maximum label application rate of the baits is 1.5 lbs. per acre. This equates to 4.97 and 3.4 grams/acre of active ingredient of hydramethylnon and pyriproxyfen, respectively. To put into perspective, if the hydramethylnon bait were applied directly to the lake (in violation of label) at the maximum label rate, the concentration would be 0.004 mg/l (assuming the lake is only 1 foot deep).



Hugo & Adrian inspecting a RIFA colony.

The risk of aquatic toxicity due to the bait applications of hydramethylnon and pyriproxyfen is extremely low due to low

application rate, relative toxicity and summer rainfall.



One of many dead fish found on shore.

References

1. University of California Statewide Integrated Pest Management Project - California Weather WWW Databases, University of California Division of Agriculture and Natural Resources.
2. Bacey, Juanita, Environmental Fate of Hydramethylnon, Environmental Monitoring Branch, Department of Pesticide Regulation, 1001 I Street, Sacramento, CA 95814.



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