



Winston H. Hickox  
Secretary for  
Environmental  
Protection

# Department of Pesticide Regulation

Paul E. Helliker, Director  
830 K Street • Sacramento, California 95814-3510 • www.cdpr.ca.gov



Gray Davis  
Governor

## MEMORANDUM

TO: Douglas Y. Okumura, Acting Assistant Director  
Division of Enforcement, Environmental  
Monitoring and Data Management

FROM: Randy Segawa, Senior Environmental Research Scientist  
Dave Kim, Associate Environmental Research Scientist  
(916) 324-4100

DATE: May 7, 1999

SUBJECT: METHYL BROMIDE MONITORING IN SANTA CRUZ COUNTY,  
FIRST CREST RANCH APPLICATION

The following is a preliminary summary of the results from the first 48 hours of monitoring for the first methyl bromide application at Coastal Nursery, Crest Ranch.

### Application:

Approximately five acres were treated on May 1, 1999, beginning at 6:05 a.m. and ending at 9:15 a.m. The application rate was 300 pounds per acre of 99.5 percent methyl bromide and 0.5 percent chloropicrin.

### Sampling:

We located samplers at 12 sites around the field (see attached figure). Four samplers were placed around the perimeter of the field, one at the middle of each side, 30 feet from the edge of the treated area. Four samplers were placed at the buffer zone distance of 100 feet, one at each corner of the treated area. Four samplers were placed at selected residences near the field, approximately 150 - 800 feet from the edge of the treated area.

The samplers with activated charcoal tubes were run for two six-hour periods, and three 12-hour periods, for a total of 48 hours. Selected sites and periods were also monitored using stainless steel canisters.

Weather data was collected from a weather station on site. These data will be used in the final report to characterize the preliminary results.

Douglas Y. Okumura

May 7, 1999

Page 2

**Results:**

None of the detected concentrations exceeded the methyl bromide target value of 0.21 parts per million (ppm) or 210 parts per billion (ppb). The highest 24-hour time-weighted average concentration detected was 0.082 ppm (82 ppb), 30 feet east of the treated area (see attached table). The highest 24-hour concentration detected at the buffer zone distance of 100 feet was 0.038 ppm (38 ppb). The highest 24-hour concentration detected at any residence was 0.015 ppm (15 ppb). These results may be adjusted after evaluating the quality assurance data, as done in all studies. Analysis of canister samples have not been completed.

Staff will complete a more detailed report on these findings in the next few weeks.



Methyl Bromide Air Monitoring

Watsonville, Crest Ranch, First Application, 5/1/99

Methyl Bromide (ppm) for Each Sampling Period

Site	Sampler Location		06:00 - 12:00	12:00 - 18:00	18:00 - 06:00	06:00 - 18:00	18:00 - 06:00	1st 24-hrs	2nd 24 hrs	3rd 24 hrs
	Direction	Distance (ft)	(6 hrs)	(6 hrs)	(12 hrs)	(12 hrs)	(12 hrs)			
1	south	30	0.039	0.037	0.071	0.040	0.016	0.055	0.056	0.028
2	west	30	nd	nd	0.039	0.019	0.006	0.021	0.029	0.012
3	north	30	0.053	0.140	0.040	0.017	0.028	0.068	0.029	0.022
4	east	30	0.124	0.151	0.026	0.043	0.078	0.082	0.035	0.061
Buffer										
5	southwest	100	nd	nd	0.007	nd	nd	0.005	0.005	nd
6	northwest	100	nd	nd	0.040	0.008	nd	0.021	0.024	0.005
7	northeast	100	0.022	0.037	nd	nd	0.011	0.016	nd	0.007
8	southeast	100	0.024	0.032	0.034	0.042	0.021	0.031	0.038	0.032
Residences										
9	south	200	nd	nd	0.024	0.006	nd	0.013	0.015	0.004
10	west	150	nd	nd	0.010	nd	nd	0.006	0.006	nd
11	west	150	nd	nd	0.017	nd	nd	0.010	0.010	nd
12	southeast	800	nd	nd	nd	nd	0.005	nd	nd	0.004

nd = none detected, detection limit approx 0.005 ppm