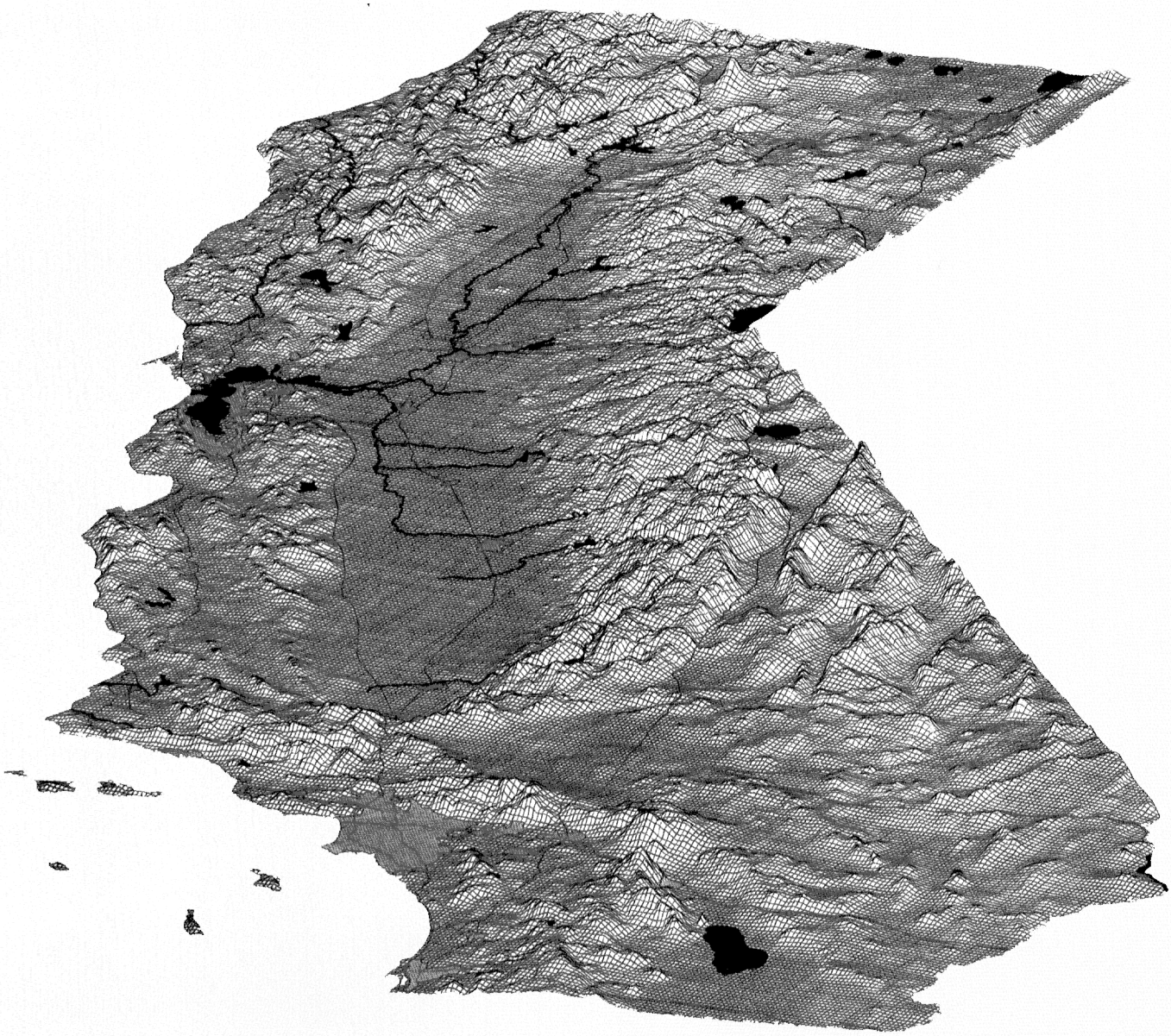


CALIFORNIA
DEPARTMENT OF
FOOD AND AGRICULTURE

AIR POLLUTION CROP LOSS MANUAL

July, 1987

AIR POLLUTION CROP LOSS MANUAL

July, 1987

Compiled by:

R. C. Musselman

P. M. McCool

Statistics:

R. E. Gallavan

T. Younglove

Graphics:

M. R. Peterson

D. L. Sheeks III

Branch Chief:

R. J. Oshima

Project Manager:

R. R. Teso

Environmental Hazards Assessment Program

Department of Food and Agriculture
Division of Pest Management, Environmental Protection and Worker Safety
Branch of Environmental Monitoring and Pest Management
1220 N Street, Sacramento, California 95814

ACKNOWLEDGMENT

Many people have been involved in the development of this manual over the 16 year history of this project. It is in sincere appreciation of their efforts that we thank Dr. O.C. Taylor, Betty Yamamoto, Minn Poe, Holly Haggerty, Allen Lee and the many seasonal employees and UC Riverside students whose labors have made this manual a reality.

Introduction

California is the largest producer of agricultural crops in the United States, commercially producing more than 200 agricultural commodities. California leads the nation in the production of over 40 of these commodities. About 50% of the fruits, nuts, and vegetables produced in the United States come from California. Agriculture is important for the economy of California, providing a steady supply of food for produce markets throughout the nation.

It has long been known that crops can be injured by air pollutants. Although many of the crops grown in California develop foliar injury when exposed to pollutants, only a few crops have been examined for pollutant effects on crop productivity. Research has shown that yield losses frequently are not related to the amount of foliar injury from pollutants. Many crops show reductions in growth in the absence of foliar injury symptoms. Conversely, some crops have shown foliar injury with little or no loss in productivity. Studies with a limited number of pollutants and crops have estimated production losses worth millions of dollars.

Different methods have been used in California to estimate air pollution yield losses for crops. Initial studies utilized small field plots located in areas exposed to different levels of smog. Plants were grown in pots using a uniform soil mix to minimize differences which might occur due to soil and nutrient differences between sites. Yield of crops grown in each of these areas was related to its ambient smog level using statistical techniques to generate air pollution crop yield loss functions. Specific levels of pollutants which occur in other regions could then be used to estimate yield reduction which might be expected for those areas.

For many years this technique was used to generate yield loss estimates for crops. However, yield of crops grown in these different smog regions was also influenced by meteorological conditions such as temperature and rainfall. It was often difficult to determine how much difference in yield between sites was related to smog or to local meteorological conditions. To avoid this problem, it was preferable to grow the plants at one site where meteorological conditions did not change. However, crops needed to be exposed to various pollutant levels. This was accomplished with a new field air pollution fumigation facility. Field enclosures or chambers (see Plate 12) were built around small field plots which could exclude or add various quantities of smog to simulate air pollution gradients from regions with different concentrations of smog. Since all chambers are located at one field site, crops are grown under similar meteorological conditions but different smog levels. Each chamber is adjusted to a different smog level, simulating pollutant levels for different agricultural regions of the State. Yield of crops grown under a particular smog level is compared to yield in other chambers grown under different smog levels. Air pollution yield loss functions are developed for individual crops where yield is related to smog level as with the earlier field experiments. Air pollution chamber systems are currently being used as the standard method to generate crop yield loss functions.

This manual contains ozone dose-crop yield loss functions which have been developed by the Environmental Hazards Assessment Program (EHAP) of the California Department of Food and Agriculture. The process of generating crop yield loss functions for each crop is difficult and time consuming. Thus, the number of yield loss functions currently available is limited. This manual is designed to allow the addition of supplements

to the inventory as new or revised yield loss functions become available. Varietal susceptibility rankings for some of the current crops are available and are presented with the yield loss function for that crop.

Ambient ozone/oxidant, the primary component of smog, is the only pollutant currently addressed. Ozone is highly toxic to plants and accounts for over 90% of the agricultural losses in California from all air pollutants. Ozone is a pollutant consisting of three oxygen atoms (O_3) generated by the reaction of sunlight on nitrogen oxides and hydrocarbons emitted from burning of fossil fuels such as gasoline, oil, or coal. Combustion of gasoline in automobiles is a major source of nitrogen oxides and hydrocarbons. Since sunlight is necessary to generate ozone, ambient concentrations are generally highest in late afternoon. Ozone is not stable and ambient levels decrease after sunset. Although ozone levels are often higher near urban sources of nitrogen oxides, injurious levels frequently occur in agricultural areas of the state. Peak concentrations of ozone occurring in the evening in rural areas often indicate transport from urban areas. Five-year average ozone concentrations for various areas in California during August are shown in the color plates (Plate 7), where the vertical axis represents ozone concentration in parts per hundred million (pphm), and the other axes represent hour of the day (0-24) and the day of the month (0-31). Peak concentrations for individual years can be considerably higher than the averages shown in the color plates.

Other pollutants such as sulfur dioxide and hydrogen fluoride are important only in localized areas where they are produced as emissions from combustion of coal or oil, or from smelting processes. Current laws limit emissions of pollutants from these facilities.

Ozone injury to plants occurs as small, pinhead sized, red-black, dead spots occurring between the veins of leaves. Ozone injury is called oxidant stipple, from the stippled appearance of the dead spots on the leaves caused by ozone (an oxidant). In more advanced stages of injury, the small stipples join together to form larger dead areas on the leaf to give a general bronzing appearance to the leaf surface. The leaf often becomes chlorotic (yellowing caused by loss of chlorophyll) and the leaf eventually dies. A few crop species show smaller amounts of stipple but more chlorosis when exposed to ozone. Most ozone injury is found on the lower, more mature leaves of the shoot or branches of the plant.

This manual contains two appendices. Appendix A contains crop yield loss functions for ozone. Information for each crop is presented as a single crop yield loss function table. Additions to the manual can be inserted at the end of this section as they become available. Appendix B contains current ambient ozone levels for many localized areas of the state. Tables are compiled from data produced from California Air Resources Board monitoring sites located throughout the state. These tables will be updated as additional data becomes available. Additions or revisions to Sections A and updates of Appendix B will be sent to those who request that their name be added to the Air Pollution Crop Loss Manual mailing list maintained by EHAP.

How Crop Yield Loss Functions are Generated

Crops are grown through an entire season from seed to harvest in the chambers described above using standard field cropping methods as much as possible. Each chamber is pre-adjusted to a specific ozone level to which the plants are exposed during growth. Plants are harvested at normal

maturity, and quality and yield of crop is determined. Yield from each chamber is related to the ozone dose to which that chamber was exposed during the growth of the crop using regression analysis. Ozone dose levels for the chambers are calculated as the total of the average hourly ozone values after subtracting 10 pphm from each hourly value. Removing ozone doses below 10 pphm minimizes the problem of equal mathematical weighting of dose accumulated from many hours of low concentration with fewer hours of higher concentration. Higher concentrations are more likely to cause a plant response. Subtracting levels below 10 pphm effectively eliminates lower ozone levels which are less likely to affect plant growth and removes low levels which typically occur at night when plants do not generally respond to ozone. The 10 pphm threshold was chosen as an arbitrary baseline level. This is the current California State Standard Air Quality Criteria for ozone. Ozone levels of 10 pphm or higher are highlighted in red in the color plates shown in this manual. Actual ozone threshold for plant response to pollutants varies with plant species and stage of development of the plant when exposed.

Pollutant crop yield loss regression equations have been converted to percent crop yield reduction functions to relate loss to a specific dose level. Yield loss functions can be used by individual growers or others interested in estimating yield reductions for specific crops in specific areas of the state. Yield loss functions are presented separately for each crop in Appendix A. Ozone dose must be determined for the area and season of growth where the crop is grown before the tables can be used. To determine ozone dose for use in the yield loss function tables, first determine the area and time of year in which the crop of interest is grown. List all the hourly ozone concentrations for this time period for

the nearest monitoring station. Subtract 10 pphm from each ozone value and sum the remaining values. This total dose is inserted in the loss equation to determine estimated yield loss. Ozone doses are summarized in Appendix B with the 10 pphm baseline doses already subtracted for use in the yield loss function tables. Ozone summaries in Appendix B are periodically updated to reflect current monitoring data. Since ozone levels might change drastically from year to year due to weather conditions, five year averages are also given to minimize these yearly differences when predicting potential yield loss. Loss for a past year utilizes the ozone data for that particular year. Once ozone dose has been determined for the specific area and time of year of interest, the amount of predicted yield loss can be determined from the yield loss equations.

Yield loss equations do not estimate economic loss to individual growers or regional economic effects. Economic assessment of loss by growers can be made based upon individual costs of production and price received for the crop. Area and regional assessments of loss must use economic models including such factors as supply and demand.

A large volume of data concerning the effects of air pollutants on crops has been accumulated by CDFA since 1971. Additional information regarding yield parameters including quality as well as quantity ratings have been maintained for many of the crops and their cultivars identified in this manual. When available and practical, USDA grading procedures were used in recording yield data. This information is considered outside the scope of this manual but may be made available upon request.

Instructions for Use of the Manual

Specific examples:

Problem 1. Find the expected loss in yield from air pollution for 40 acres of tomatoes grown in the Turlock area of Merced County in 1984.

Solution: Find the nearest ozone monitoring station in the San Joaquin Valley Air Basin (Turlock) and record the ozone levels for the season when the tomatoes were grown (May through September, 1984). The seasonal ozone dose can be calculated by adding the respective monthly doses, i.e. 18 (May) + 16 (Jun) + 147 (Jul) + 13 (Aug) + 31 (Sep) = 225 total dose. Next, find the yield loss function for tomatoes in Appendix A (A-3). Find the closest representative dose in the left hand column of the table and locate the corresponding predicted percent reduction in yield. 225 dose = 5.9% reduction in yield. If yield was 250 cwt per acre, then reduction in yield was 250 * .059 or 14.75 cwt per acre or 590 cwt loss for the 40 acre field. The right hand column gives an estimate of the uncertainty of the yield loss estimate, indicating that yield loss might vary from 0% to 28.7%, or 0 to 2870 cwt for the field. Actual dollar value of the loss to a grower depends upon cost of production and price received for the crop.

Problem 2. Estimate the yield loss expected for 35 acres of alfalfa grown near Elsinore.

Solution: Estimate the length of the growing season for alfalfa as March 1 through October 31 for the Elsinore area. Looking in the ozone tables for the monitoring station nearest Elsinore (Perris in the South Coast Air Basin), determine the total dose for that station from March 1 through October 31. Five year averages of ozone dose are used to predict yield loss for a future year to minimize the effect of year to year

variability which occurs due to normal yearly differences in pollutant levels. Add the five-year average doses for the growing period, i.e. Mar (12) + Apr (78) + May (229) + Jun (413) + Jul (563) + Aug (497) + Sep (248) + Oct (56) = 2096 pphm-hrs ozone dose during the growth of the crop. Next locate the yield loss function in Appendix A for alfalfa (A-1). Find the dose calculated above (2000) in the left hand column of the table and move across the corresponding predicted percent reduction in yield (18.6%). The actual percent reduction can be calculated directly from the equation (Percent Reduction =0.009258 * 2096 = 19.4%). Assuming average yield of 6 tons per acre times 35 acres, use the average reduction (19%) to estimate yield loss of 40 tons of alfalfa (6*35*.19=40). Note that precision of the estimate allows that the yield loss for a dose of 2000 pphm-hrs ozone could vary from 9.1 to 28.0%, thus yield loss could vary from 19 to 59 tons for the 35 acre field. Actual dollar loss for the crop depends upon the value of the alfalfa and the costs of production.

Plate 1. Ozone injury in cotton field near Arvin.

Plate 2. Boston lettuce with oxidant injury resulting from 0, 20, and 30 pphm Ozone fumigations (left to right).

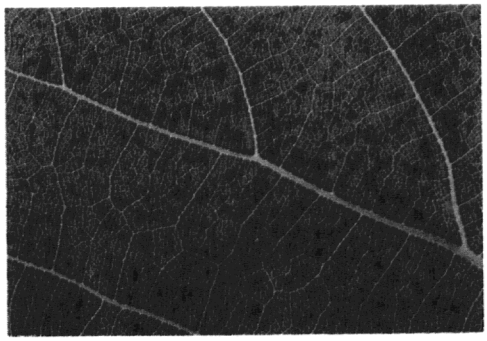


Plate 3. Close-up of typical oxidant stipple on grape leaf.

Plate 4. Oxidant injury on grape recorded from Arvin area. Note chlorosis and stipple combination.

Plate 5. Processing tomato vine collapse resulting from severe oxidant levels in 1977. Indirect injury later developed from sunscald to fruit.

Plate 6. Typical oxidant injury on bean plants under field conditions in the Riverside area.

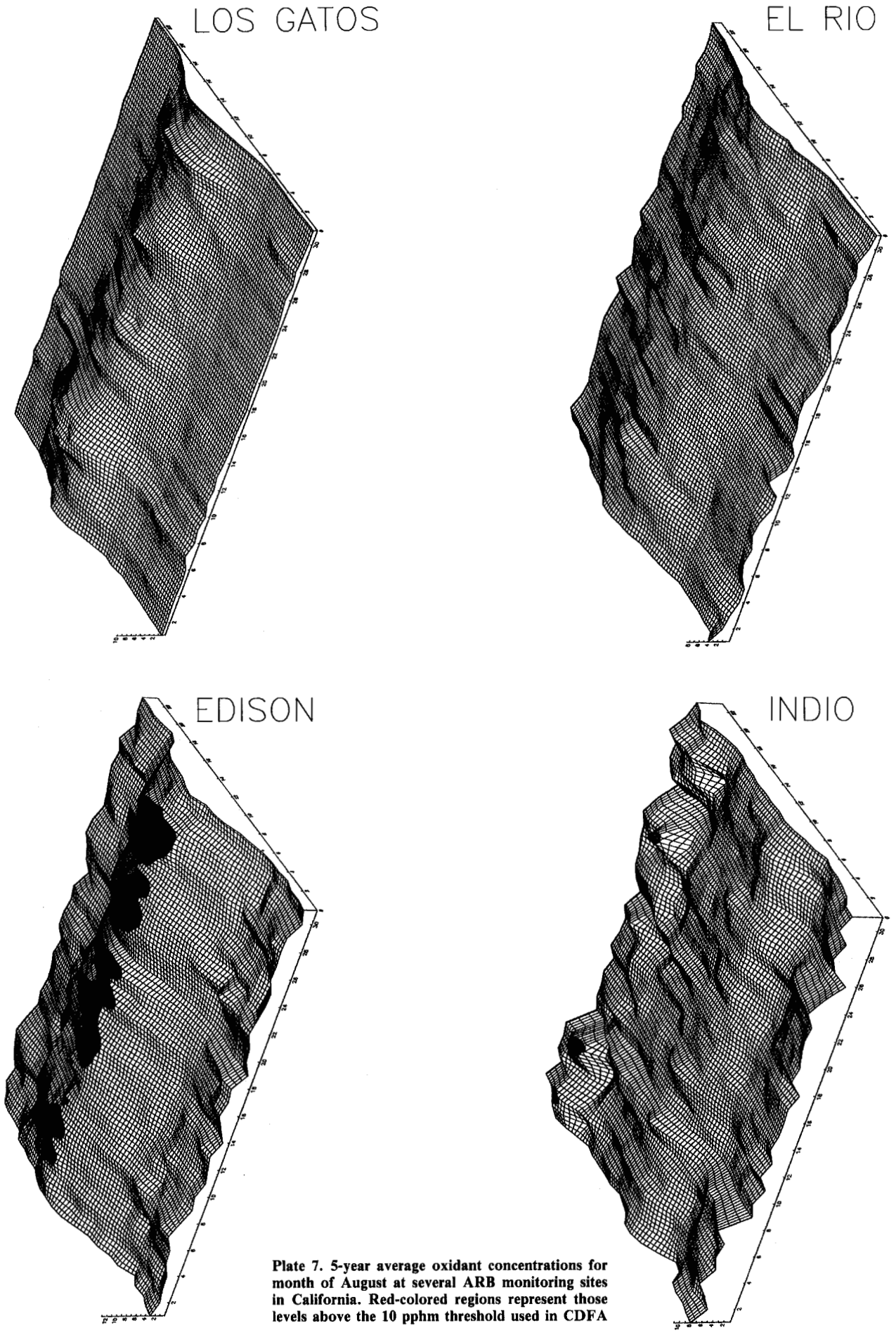
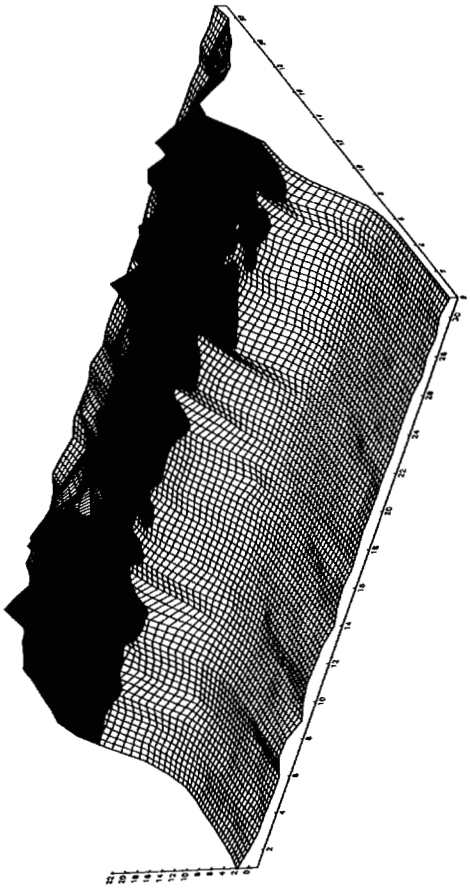
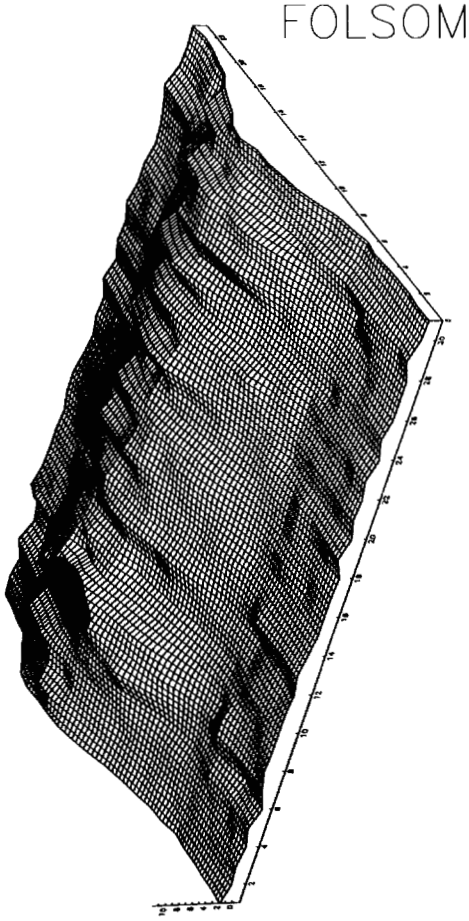


Plate 7. 5-year average oxidant concentrations for month of August at several ARB monitoring sites in California. Red-colored regions represent those levels above the 10 pphm threshold used in CDFA

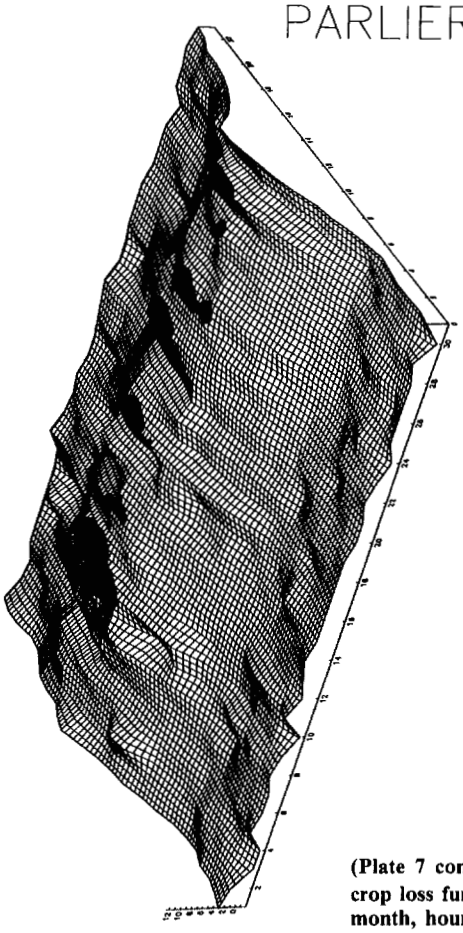
RUBIDOUX



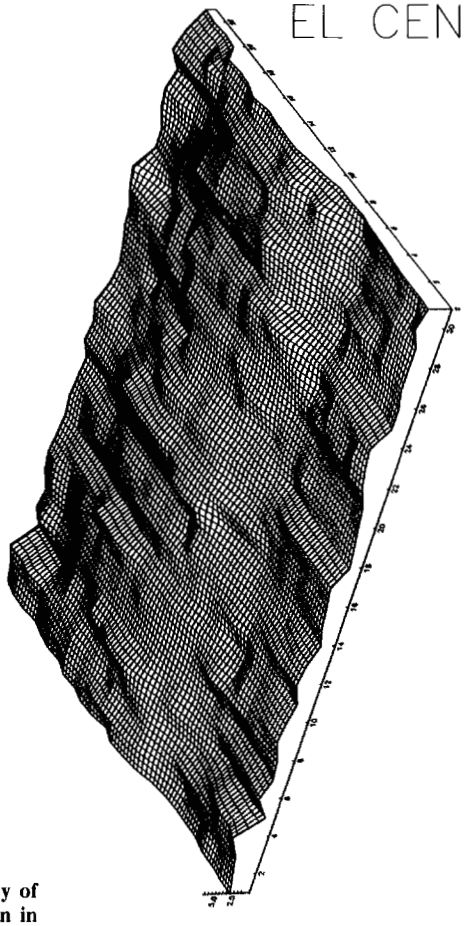
FOLSOM



PARLIER



EL CENTRO



(Plate 7 continued)
crop loss functions. (X, Y, Z axes represent day of month, hour of day, and oxidant concentration in parts per hundred million, respectively.

Plate 8. Ozone-induced chlorosis of parsley.

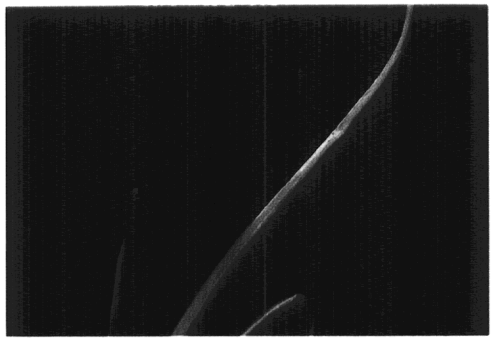


Plate 9. Ozone-induced chlorosis of onion.

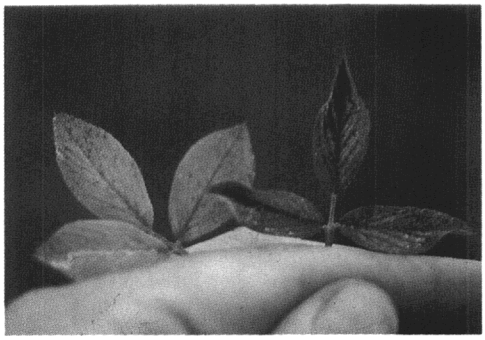


Plate 10. Severe ozone injury on alfalfa collected from the Chino (San Bernardino, Co.) area.

Plate 11. Comparison of alfalfa yields from controlled fumigations in field chambers after 4th seasonal harvest.

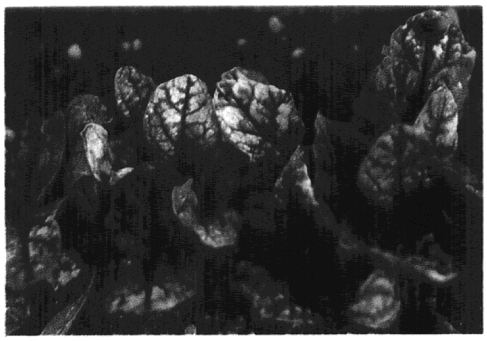


Plate 12. Severe oxidant injury on spinach from field in Domiguez Hills area (Los Angeles County).

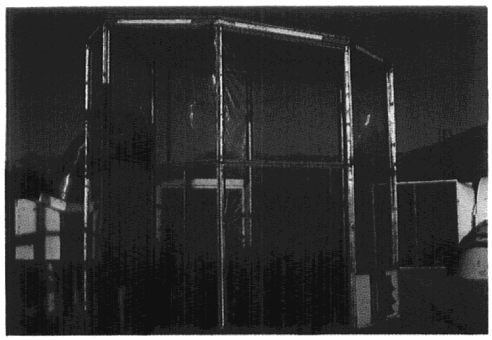


Plate 13. Telflon®-covered fumigation chamber used for development of crop loss functions on UC Riverside Citrus Experiment Station grounds.

Appendix A

APPENDIX A

A-1. OZONE DOSE ALFALFA YIELD FUNCTION

Ozone dose-seasonal yield loss function for Moapa 69 alfalfa. Ozone dose was calculated in pphm-hrs greater than 10 pphm from 1 April through 31 October 1974.

Percent reduction = $9.258 \times 10^{-3} \times$ dose

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.0	0.0	-	15.1
250.	2.3	0.0	-	16.3
500.	4.6	0.0	-	17.7
750.	6.9	0.0	-	19.1
1000.	9.3	0.0	-	20.6
1250.	11.6	1.0	-	22.2
1500.	13.9	3.9	-	23.9
1750.	16.2	6.5	-	25.9
2000.	18.6	9.1	-	28.0
2250.	20.8	11.4	-	30.3
2500.	23.1	13.6	-	32.7
2750.	25.5	15.5	-	35.4
3000.	27.8	17.3	-	38.3
3250.	30.1	18.9	-	41.3
3500.	32.4	20.4	-	44.4
3750.	34.8	21.9	-	47.6
4000.	37.0	23.2	-	50.8
4250.	39.3	24.5	-	54.2
4500.	41.7	25.8	-	57.6
4750.	44.0	26.9	-	61.0
5000.	46.3	28.1	-	64.5
5250.	48.7	29.2	-	68.0
5500.	50.9	30.3	-	71.5
5750.	53.2	31.4	-	75.1

Varietal ranking for ozone resistance

Ozone sensitive: Moapa 69, Mesa Sirsa, Hayden, Joaquin

Moderate ozone sensitivity: Old Sonora, Caliente, Bonanza

Ozone tolerant: El Camino, El Dorado, AS-13

A-2. OZONE DOSE ALFALFA DEFOLIATION FUNCTION

Ozone dose-leaf/total weight loss function for Moapa 69 alfalfa. Ozone dose was calculated in pphm-hrs greater than 10 pphm from 1 April through 31 October 1974.

$$\text{Percent reduction} = 3.034 \times 10^{-3} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.0	0.0	-	3.8
250.	0.8	0.0	-	4.3
500.	1.5	0.0	-	4.8
750.	2.3	0.0	-	5.3
1000.	3.0	0.2	-	5.9
1250.	3.8	1.1	-	6.5
1500.	4.6	2.0	-	7.1
1750.	5.3	2.9	-	7.7
2000.	6.1	3.7	-	8.5
2250.	6.8	4.4	-	9.2
2500.	7.6	5.2	-	10.0
2750.	8.3	5.8	-	10.9
3000.	9.1	6.5	-	11.8
3250.	9.9	7.0	-	12.7
3500.	10.7	7.6	-	13.6
3750.	11.4	8.1	-	14.6
4000.	12.1	8.6	-	15.6
4250.	12.9	9.1	-	16.6
4500.	13.7	9.7	-	17.7
4750.	14.4	10.1	-	18.7
5000.	15.2	10.6	-	19.8
5250.	15.9	11.0	-	20.8
5500.	16.7	11.5	-	21.9
5750.	17.4	11.9	-	23.0

Varietal ranking for ozone resistance

Ozone sensitive: Moapa 69, Mesa Sirsa, Hayden, Joaquin

Moderate ozone sensitivity: Old Sonora, Caliente, Bonanza

Ozone tolerant: El Camino, El Dorado, AS-13

A-3. OZONE DOSE POLE TOMATO YIELD FUNCTION

Ozone dose-yield loss function for 6718 VF pole tomatoes. Ozone dose was calculated in pphm-hrs >10 pphm. Containers are defined as units representing 2-layer flats and 3-layer flats.

Percent reduction (lugs[a] harvested) = $2.327 \times 10^{-2} \times$ dose

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.0	0.0	-	25.4
250.	5.9	0.0	-	28.7
500.	11.8	0.0	-	32.2
750.	17.8	0.0	-	36.0
1000.	23.7	7.1	-	40.3
1250.	29.6	14.1	-	45.1
1500.	35.5	20.5	-	50.6
1750.	41.4	26.0	-	56.9
2000.	47.4	30.9	-	63.9
2250.	53.3	35.2	-	71.4
2500.	59.2	39.0	-	79.4
2750.	65.1	42.5	-	87.8
3000.	71.1	45.8	-	96.3
3250.	77.0	49.0	-	100.0

[a]Lugs includes 2-layer flats and 3-layer lugs.

Varietal ranking for ozone resistance

Ozone susceptible: Ace, Polepak F_2VF, Earlypak 7

Ozone tolerant: H-11, 6718 VF

A-4. OZONE DOSE PROCESSING TOMATO YIELD FUNCTION

Ozone dose-total weight of fruit yield loss function for VF-145-B7879 processing tomatoes. Ozone dose was calculated in pphm-hrs greater than 10 pphm from May 11 - August 17, 1977.

$$\text{Percent reduction} = 2.29 \times 10^{-2} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.0	0.0	-	18.1
250.	5.7	0.0	-	22.1
500.	11.4	0.0	-	26.3
750.	17.1	3.7	-	30.6
1000.	22.9	10.5	-	35.2
1250.	28.6	17.0	-	40.1
1500.	34.3	23.2	-	45.4
1750.	40.0	28.9	-	51.1
2000.	45.7	34.2	-	57.2
2250.	51.5	39.2	-	63.7
2500.	57.2	43.8	-	70.5
2750.	62.9	48.2	-	77.6
3000.	68.6	52.4	-	84.8
3250.	74.3	56.4	-	92.2
3500.	80.0	60.4	-	99.7

Varietal ranking for ozone tolerance

VF10, Peto Early, VF145-B7879, VF134-1-2 and Peto Mech 2 were statistically equivalent in ozone susceptibility therefore sensitivity rankings could not be established.

A-5. OZONE DOSE COTTON YIELD FUNCTION (NUMBER OF HARVESTED BOLLS)

Ozone dose-number of harvested bolls yield loss function for Acala SJ-2 cotton. Ozone dose was calculated in pphm-hrs >10 pphm from May through November 1976.

$$\text{Percent reduction} = 6.947 \times 10^{-3} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.0	0.0	-	8.5
250.	1.7	0.0	-	9.4
500.	3.5	0.0	-	10.3
750.	5.2	0.0	-	11.3
1000.	7.0	1.4	-	12.5
1250.	8.7	3.6	-	13.7
1500.	10.4	5.7	-	15.2
1750.	12.2	7.5	-	16.8
2000.	13.9	9.1	-	18.7
2250.	15.6	10.5	-	20.8
2500.	17.4	11.7	-	23.0
2750.	19.1	12.8	-	25.4
3000.	20.8	13.8	-	27.8
3250.	22.6	14.8	-	30.4
3500.	24.3	15.7	-	33.0

Varietal ranking for ozone tolerance

Ozone susceptible: Acala SJ-2, SJ-3; DP-61

Ozone tolerant: Acala SJ-4

A-6. OZONE DOSE COTTON UNIFORMITY INDEX FUNCTION

Ozone dose-uniformity index loss function for Acala SJ-2 cotton. Ozone dose was calculated in pphm-hrs >10 pphm from May through November 1976.

Percent reduction = 1.90×10^{-3} x dose

Predicted	Range of reduction

A-9. OZONE DOSE POTATO YIELD FUNCTION* (WEIGHT OF HARVESTED TUBERS)

Ozone dose-tuber weight yield loss function of harvested potatoes. Ozone dose was calculated for Centennial Potatoes in pphm-hrs>10 pphm from 3 September through December 1978.

Percent reduction = 1.03×10^{-2} x dose

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
500.	5.16	3.93	-	6.40
750.	7.75	5.89	-	9.60
1000.	10.33	7.86	-	12.80
1250.	12.91	9.82	-	16.00
1500.	15.49	11.79	-	19.20
1750.	18.07	13.75	-	22.39
2000.	20.66	15.72	-	25.59
2250.	23.24	17.68	-	28.79
2500.	25.82	19.65	-	31.99
2750.	28.40	21.61	-	35.19
3000.	30.99	23.58	-	38.39
3250.	33.57	25.54	-	41.59
3500.	36.15	27.51	-	44.79
3750.	38.73	29.47	-	47.99
4000.	41.31	31.44	-	51.19
4250.	43.90	33.40	-	54.39
4500.	46.48	35.37	-	57.59

Varietal ranking for ozone tolerance

Ozone sensitive: Centennial

Moderately ozone sensitive: Norgold, Red LeSota, Nooksack

Ozone resistance: White Rose, Burbank Russet

*We wish to acknowledge Dr. K. Foster for his advice and data input.

A-10. OZONE DOSE STRAWBERRY YIELD FUNCTION

Ozone dose was not correlated with Tioga strawberry yield. The analysis and evaluation of both Field and Greenhouse fumigation experiments did not identify statistically significant ozone responses. This crop was therefore characterized ozone tolerant and no loss function could be developed. The following varieties were studied:

1) Aiko
2) Cruz
3) Fresno
4) Sequoia
5) Tioga
6) Toro
7) Tuffs

No ozone yield response could be documented for any of these varieties.

A-11. OZONE DOSE GREEN ONION YIELD FUNCTION

Ozone dose - green onion weight function for Evergreen Bunching onions. Ozone dose was calculated in pphm-hrs greater than 10 pphm. The function was produced from seasonal growth and fumigation data obtained under controlled fumigation conditions.

$$\text{Percent reduction} = 5.97 \times 10^{-2} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.00	0.00	-	0.00
250.	15.31	13.03	-	17.59
500.	30.62	26.06	-	35.18
750.	45.93	39.10	-	52.77
1000.	61.24	52.13	-	70.36
1250.	76.55	65.16	-	87.94

A-12. OZONE DOSE DRY BEAN YIELD FUNCTION

Ozone dose-total weight of harvested seed yield loss function for Red Kidney beans. Ozone dose was calculated in pphm hrs >10 pphm from May through 11 August 1977.

$$\text{Percent reduction} = 2.40 \times 10^{-2} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
50.	0.0	0.0	-	0.0
250.	43.3	38.4	-	48.3
500.	58.7	54.5	-	62.9
750.	67.7	63.4	-	72.1
1000.	74.1	69.5	-	78.7
1250.	79.0	74.1	-	83.9
1500.	83.1	77.8	-	88.3
1750.	86.5	80.9	-	92.0
2000.	89.5	83.7	-	95.3
2250.	92.1	86.0	-	98.1
2500.	94.4	88.1	-	100.7

Varietal ranking for ozone tolerance

Ozone sensitive: Dark Red Kidney, Sutter Pink, Red Kidney; (Limas) White Ventura N.

Moderately ozone sensitive: Small White; (Limas) Kingston, Mezcla.

Ozone resistant: (Limas) Fordhook.

A-13. OZONE DOSE TURNIP YIELD FUNCTION

Ozone was not correlated with Tokyo Cross Hybrid turnip yield. The analysis and evaluation of data obtained from controlled fumigation conditions did not identify specific responses. This crop therefore was labeled ozone tolerant and no loss function provided.

A-14. OZONE DOSE SPINACH YIELD FUNCTION

Ozone dose - leaf weight yield loss function for Bloomsdale spinach. Ozone dose was calculated in pphm hrs greater than 10 pphm. The function was produced from seasonal growth and fumigation data obtained under controlled fumigation conditions.

$$\text{Percent reduction} = 4.006 \times 10^{-2} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.00	0.0	-	0.0
250.	10.02	5.1	-	14.9
500.	20.03	10.2	-	29.8
750.	30.05	15.3	-	44.8
1000.	40.06	20.4	-	59.7
1250.	50.07	25.5	-	74.6

A-15. OZONE DOSE PARSLEY YIELD FUNCTION

Ozone dose-top weight yield loss function for Extra Triple Curled parsley. Ozone dose was calculated in pphm hrs greater than 10 pphm. The function was produced from seasonal growth and fumigation data obtained under controlled fumigation conditions.

$$\text{Percent reduction} = 4.8 \times 10^{-2} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.00	0.0	-	0.0
250.	12.00	7.4	-	16.6
500.	24.00	14.7	-	33.3
750.	36.00	22.1	-	49.9
1000.	48.00	29.4	-	66.6
1250.	60.00	36.8	-	83.2

A-16. OZONE DOSE LEAF LETTUCE YIELD FUNCTION

Ozone dose-leaf weight yield loss function for Black-seeded Simpson leaf lettuce. Ozone dose was calculated in pphm hrs greater than 10 pphm. The function was produced from seasonal growth and fumigation data obtained under controlled fumigation conditions.

$$\text{Percent reduction} = 5.19 \times 10^{-2} \times \text{dose}$$

Ozone dose > 10 pphm	Predicted % reduction	Range of reduction at 95% confidence		
0.	0.00	0.00	-	0.00
250.	11.97	7.52	-	16.42
500.	23.94	15.03	-	32.85
750.	35.91	22.55	-	49.67
1000.	47.88	30.07	-	65.69

Appendix B

APPENDIX B

TABLE OF MONTHLY OZONE DOSES >10 PPHM

NORTH COAST AIR BASIN

DEL NORTE COUNTY

Gasquet Ranger Station

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981							0	0	0	0		
AVG							0	0	0	0		

HUMBOLT COUNTY

Willow Crk-CSD Hwy 96

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981							0	0	0			
AVG							0	0	0			

Eureka-Myrtle Ave

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981							0	0	0			
AVG							0	0	0			

Eureka-Fort Ave

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981							0	0	0	0		
AVG							0	0	0	0		

MENDOCINO COUNTY

Ukiah-Health Dept

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					0	0	0	0	0	0		
1984	0	0	0	0	0	0	0	0	0	0		
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

TRINITY COUNTY

Weaverville-Caltrans

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981							0	0	0			
AVG							0	0	0			

SAN FRANCISCO BAY AREA AIR BASIN

CONTRA COSTA COUNTY

Pittsburg

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	9	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	10	3	1	0	0	0
1983	0	0	0	0	1	5	0	6	1	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	1	0	1	0	2	0	0	0	0
AVG	0	0	0	2	0	1	2	2	0	0	0	0

Richmond-13th St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	1	0	2	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Concord-2975 Treat Blvd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	12	0	0	2	0	0	4	0	0
1984	0	0	0	0	2	0	13	3	13	0	0	0
1983	0	0	0	0	0	4	5	21	11	0	0	0
1982	0	0	0	0	0	0	0	17	5	0	0	0
1981	0	0	0	0	0	1	3	10	2	0	0	0
AVG	0	0	0	2	0	1	5	10	6	1	0	0

Bethel Island Rd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	3	0	4	0	0	0	10		
1984						1	22	1	3	0	0	0
1983					0	0	0	5	8	0		
1982	0	0	0	0	0	0	0	0	1	1	0	
1981			0	1	0	3	0	8	0	0	0	0
AVG	0	0	0	1	0	2	4	3	2	2	0	0

MARIN COUNTY

San Rafael

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	2	0	0	0
1983	0	0	0	0	0	0	0	0	3	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	1	0	0	0

NAPA COUNTY

Napa-Jefferson St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	1	0	0	0	0	0		0	0
1984	0	0	0	0	0	0	1	0	2	0	0	0
1983	0	0	0	0	0	0	0	0	3	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	1	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	1	0	0	0

SAN MATEO COUNTY

Redwood City

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	7	0	0	0	0	0	2	0	0
1984	0	0	0	1	0	0	0	0	2	0	0	0
1983	0	0	0	0	0	0	0	8	14	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	6	0	0	0	0	0	0	0	0
AVG	0	0	0	3	0	0	0	2	3	0	0	0

SANTA CLARA COUNTY

Los Gatos

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	4	47	1	4	11	0	0
1984	0	0	0	0	32	0	101	13	33	0	0	0
1983	0	0	0	0	6	6	41	45	76	0	0	0
1982	0	0	0	0	0	1	1	3	3	1	0	0
1981	0	0	0	6	0	1	1	19	2	0	0	0
AVG	0	0	0	1	8	2	38	16	24	2	0	0

San Jose-4th St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	22	0	2	0	0	5	4	0	0
1984	0	0	0	3	14	0	41	1	11	0	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1983	0	0	0	0	2	9	20	22	37	0	0	0
1982	0	0	0	0	7	0	0	2	0	0	0	0
1981	0	0	0	13	0	2	0	3	3	0	0	0
AVG	0	0	0	8	5	3	12	6	11	1	0	0

San Jose-Piedmont(Alum Rock)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				29	0	0	0	0	5	8	0	
1984				3	14	1	29	3	6	0	0	
1983				0	5	8	22	21	33	0	0	
1982				0	16	0	0	9	4	2	0	
1981	0	0	0	28	0	13	6	8	5	0	0	
AVG	0	0	0	12	7	4	11	8	11	2	0	

Mountain View-Cuesta(SJ West)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				2	0	0	0	0	0	0	0	
1984				0	0	0	4	0	0	0	0	
1983				0	1	3	10	19	21	1	0	
1982				0	3	0	0	0	0	1	0	
1981		0	0	11	0	4	0	6	0	0	0	
AVG		0	0	3	1	1	3	5	4	0	0	

Gilroy-9th St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				6	0	6	0	7	10	2	0	
1984				0	9	0	0	15	26	0	0	
1983				0	4	0	16	9	22	0	0	
1982				0	1	0	0	0	0	0	0	
1981	0	0	0	2	0	26	4	12	0	0	0	
AVG	0	0	0	2	3	6	4	9	12	0	0	

SANTA CRUZ COUNTY

Aptos

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984	0	0	0	0	0	0	0	0	0	0	0	
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

SOLANO COUNTY

Fairfield-Water Plant

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				1	0	0	0	0	0	1	0	
1984				0	0	0	8	0	0	0	0	
1983				0	0	0	0	0	0	0	0	
1982				0	0	0	0	1	0	0	0	
1981	0	0	0	0	0	0	0	0	0	0	0	
AVG	0	0	0	0	0	0	2	0	0	0	0	

Vallejo-304 Tuolumne

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	3	0	0	2	0	1	0	0	0
1984	0	0	0	0	2	0	7	4	11	0	0	0
1983	0	0	0	0	0	3	0	2	10	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	3	0	0	0	0	0
AVG	0	0	0	1	0	1	2	1	4	0	0	0

SONOMA COUNTY

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Santa Rosa-Humboldt St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	0	0	0	0								
AVG	0	0	0	0								

Sonoma-1st St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				2	0	0	0	0	0	0	0	
1984				0	0	0	2	0	0	0	0	
1983				0	0	0	0	0	0	0	0	
1982				0	0	0	0	0	0	0	0	
1981	0	0	0	0	0	0	0	0	0	0	0	
AVG	0	0	0	0	0	0	0	0	0	0	0	

Santa Rosa-837 Fifth St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	3	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981				0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	1	0	0	0

ALAMEDA COUNTY

San Leandro

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				0	0	0	0	0	0	0	0	
1984				6	5	0	2	15	11	0	0	
1983				0	0	3	2	26	26	2	0	
1982				0	4	0	0	12	0	0	0	
1981	0	0	0	3	0	1	1	0	0	0	0	
AVG	0	0	0	2	2	1	1	11	7	0	0	

Fremont-Chapel Way

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	26	0	0	0	0	2	11	0	0
1984	0	0	0	11	14	0	31	1	11	0	0	0
1983	0	0	0	0	7	9	15	32	44	0	0	0
1982	0	0	0	0	11	0	0	10	0	0	0	0
1981	0	0	0	15	0	4	0	6	3	0	0	0
AVG	0	0	0	10	6	3	9	10	12	2	0	0

Hayward-La Mesa

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				1	0	0	0	0	0	8	0	
1984				0	5	0	19	1	13	0	0	
1983				0	0	0	0	30	24	0	0	
1982				0	0	0	0	0	0	0	0	
1981	0	0	0	0	0	1	0	1	0	0	0	
AVG	0	0	0	0	1	0	4	6	7	2	0	

Oakland-Alice

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				0	0	0	2	0	0	0	0	
1984				0	2	0	0	0	0	0	0	
1983				0	0	0	0	3	1	0	0	
1982				0	0	0	0	0	0	0	0	
1981			0	0	0	0	0	0	0	0	0	
AVG			0	0	0	0	0	1	0	0	0	

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Livermore-Old First St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	8	0	15	18	1	0	5	0	0
1984	0	0	0	0	9	4	46	13	18	0	0	0
1983	0	0	0	0	0	0	16	20	22	0	0	0
1982	0	0	0	0	0	0	0	9	4	0	0	0
1981		0	0	3	0	7	9	17	1	0	0	0
AVG	0	0	0	2	2	5	18	12	9	1	0	0

SAN FRANCISCO COUNTY

San Francisco-23rd St(East)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	3	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	1	0	0	0

NORTH CENTRAL COAST AIR BASIN

MONTEREY COUNTY

Monterey-APCD

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984	0	0	0	0								
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	1	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Carmel Valley

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	0	0								
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Salinas No 2-Health Dept

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0		0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Carmel Valley-35 Ford Rd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0		0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982										0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

SAN BENITO COUNTY

Hollister-1979 Fairview

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	1	0	1	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	1	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	27	0	0	0	0	0	0
AVG	0	0	0	0	0	5	0	0	0	0	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

SANTA CRUZ COUNTY

Scotts Valley-Sky Pk Airpt

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	0	0	0	0	0	0	0			
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Santa Cruz-966 Bostwick L

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	2	0	0
1984									0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	1	0	0

SOUTH CENTRAL COAST AIR BASIN

SAN LUIS OBISPO COUNTY

Paso Robles

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	7	0	0	0
1983	0	0	0	0	1	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	1	0	0	0

Morro Bay

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981								0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Nipomo

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	1	1	0	0
1984	0	0	0	0	0	0	0	0	1	0	0	0
1983	0	0	0	0	0	0	0	0	1	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	1	0	0	0

San Luis Obispo-Marsh

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	4	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	1	0	0	0

Morro Bay-Baywood

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	0									
1981				0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

San Luis Obispo-Goldtree

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	0									

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1981				0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Grover City-Lesage Dr

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0		0	0	0	1	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	1	0	0
1982				0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	1	0	0

SANTA BARBARA COUNTY

Santa Barbara-State St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983	0											
1982	0	0	0	0	0	0	1	0	0	0	0	0
1981	0	2	0	0	0	0	0	0	43	0	0	0
AVG	0	1	0	0	0	0	1	0	22	0	0	0

Santa Barbara-Satellite

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	0	0	1	0	0	0	2			
1981	0	0	0	1	0	10	0	0	28	0	0	0
AVG	0	0	0	1	1	5	0	0	15	0	0	0

Lompoc-G St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983	0	0	0	0								
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Goleta

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	7	0	0	2					
1984	0	0	0	3	0	0	0	0	54	0	0	0
1983	0	0	0	14	0	0	9	0	24	5	0	0
1982	0	0	0	0	2	0	0	0	14	0	1	0
1981	0	0	0	6	0	30	3	0	21	0	0	0
AVG	0	0	0	6	0	6	3	0	28	1	0	0

Santa Maria-E Main St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	0	0	0	0	0	0	0	0	0	0		
AVG	0	0	0	0	0	0	0	0	0	0		

Santa Ynez Airport

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0					
1984					0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	3	6	0	0
1982	0	0	0	2	1	0	0	0	0	0	0	0
1981	0	0	0	0	0	1	0	0	0	0	0	0
AVG	0	0	0	1	0	0	0	0	1	2	0	0

El Capitan Beach

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0					
1984	0	0	6	17	6	0	0	0	10	0	0	0
1983	0	0	0	0	0	0	13	0	12	21	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1982	0	0	0	0	0	0	0	0	27	0	0	0
1981	0	1	0	1	0	3	0	0	1	0	0	0
AVG	0	0	1	4	1	1	3	0	13	5	0	0

Santa Maria-McClelland St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982				0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Santa Barbara-Canon P St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	6	0	0	1	6	23	0	0	0
1984	0	0	1	14	0	0	0	0	36	0	0	0
1983		0	0	19	0	0	9	0	14	0	0	0
AVG	0	0	0	13	0	0	3	2	24	0	0	0

Vandenberg-Pt. Arguello

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984									0	0	0	0
AVG									0	0	0	0

VENTURA COUNTY

Simi ValleyB

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	13	0	100	44	167	130	55				
1984	0	0	10	18	150	116	110	119	109	36	2	0
1983	0	13	0	0	144	90	203	100	211	90	8	0
1982	0	24	0	15	53	55	365	477	19	64	12	0
1981	0	0	0	47	55	264	63	76	225	0	4	0
AVG	0	10	2	36	89	138	174	165	141	48	7	0

Thousand Oaks-Windsor

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	1	0	36	4	21	20	71	24	1	0	0
1984	0	2	8	2	16	12	10	12	42	5	0	0
1983	0	0	0	0	18	19	37	46	73	59	1	0
1982	6	30	8	22	21	0	73	27	45	12	6	0
1981											0	5
AVG	2	8	4	15	15	13	35	39	46	19	1	1

Piru

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981				60	125	277	362	341	191			
AVG				60	125	277	362	341	191			

El Rio-Rio Mesa School

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	12	1	1	3	7	13	5	6	0
1984	0	0	14	3	2	0	0	0	14	0	0	0
1983	0	0	0	0	4	0	8	6	28	16	8	0
1982	0	17	3	19	5	0	1	0	3	0	3	2
1981	0	8	0	20	3	26	6	0	19	0	4	0
AVG	0	5	3	11	3	5	4	3	15	4	4	0

Ventura-Figueroa

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984	0	0	0	2	1	0	0					

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1983	0	0	0	0	1	7	13	15	33	41	1	0
1982	1	0	0	29	3	0	7	0	0	4	0	4
1981	0	0	0	13	3	15	2	0	2	0	0	0
AVG	0	0	0	11	2	6	6	5	12	15	0	1

Ojai-1401 Maricopa Hwy

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983	0	4	0									
1982	3	10	2	18	22	0	241	134	45	12	5	0
1981			0	12	3	230	89	119	115	0	1	0
AVG	2	7	1	15	13	115	165	127	80	6	3	0

Piru-2 SW

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	17	0	9	16	58	21	0	2	0
1984	0	0	7	14	12	10	7	5	17	0	0	0
1983	0	0	0	0	15	10	49	33	105	34	1	0
1982	0	18	2	15	23	0	142	39	42	5	3	0
1981									1	0	0	0
AVG	0	5	2	12	13	7	54	34	37	8	1	0

COUNTY 56, SITE 428

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985		0		0	0	0	0	0	0	51	7	0
1984					0	0	0	0		0	0	0
AVG		0		0	0	0	0	0	0	26	4	0

Ventura-W Casitas Pass

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	9	0	24	0	8	9	53	32	14	21	0
1984	0	0	35	43	30	2	28	12	100	6	0	0
1983	0	0	0	5						15	0	0
AVG	0	3	12	24	15	5	19	33	66	12	7	0

Ojai-1768 Maricopa Hwy

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	3	0	15	0	0		49	61	6	0	0
1984	1	0	2	12	10	3	31	2	18	0	0	0
1983	0	0	0	3	45	23	67	50	69	17	0	0
1982											0	0
AVG	0	1	1	10	18	9	49	34	49	8	0	0

La Conchita-7128 Sa

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983							0	0	0	13		
AVG							0	0	0	13		

Ventura-Emma Wood State Beach

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	7	0	2	0	0	0	35	26	1
1984			9	6	15	0	0	0	62	0	0	1
AVG	0	0	5	7	8	1	0	0	31	18	13	1

COUNTY 56, SITE 434

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985						109	117	149	84	10	6	0
AVG						109	117	149	84	10	6	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

SOUTH COAST AIR BASIN
ORANGE COUNTY

Anaheim

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	2	3	123	17	189	77	199	71	81	18	0
1984	0	0	2	46	60	30	99	47	260	50	13	0
1983	0	0	12	0	58	33	280	307	144	30	7	0
1982	0	11	0	6	9	0	63	165	231	29	0	0
1981	0	17	0	6	37	101	127	179	64	10	0	0
AVG	0	6	3	36	36	71	129	179	154	40	8	0

La Habra

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	14	201	84	307	159	361	79	137	20	0
1984	0	4	7	133	145	54	200	155	402	88	24	0
1983	0	0	18	4	152	75	472	508	213	81	8	0
1982	0	13	0	1	15	4	173	341	430	60	0	0
1981	0	44	0	32	79	278	259	419	85	0	0	0
AVG	0	12	8	74	95	144	253	357	242	73	10	0

El Toro

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	5	138	23	163	73	171	42	66	4	0
1984	0	0	1	52	31	24	38	32	208	47	6	0
1983	2	0	16	2	47	28	261	225	122	53	1	0
1982	0	2	0	0	0	0	30	116	172	44	0	0
1981	0	40	1	3	24	66	65	167	15	0	0	0
AVG	0	8	5	39	25	56	93	142	112	42	2	0

Los Alamitos-Orangewood

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	2	4	0	37	30	39	12	11	0	0
1984	0	1	0	16	15	0	12	1	43	15	5	0
1983	0	0	0	0	8	4	62	51	48	38	0	0
1982	0	1	0	2	2	0	7	35	86	12	0	0
1981	0	9	0	4	23	34	28	42	6	12	0	0
AVG	0	2	0	5	10	15	28	34	39	18	1	0

Santa Ana-Weir Canyon Rd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	0	25	0	16	62	325						
AVG	0	25	0	16	62	325						

Costa Mesa-Placentia

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	1	29	13	0	46	86	8	19	29	30	0
1984	0	17	4	17	6	0	2	0	58	5	2	0
1983	0	0	5	0	15	1	30	60	29	88	2	0
1982	3	2	1	2	2	0	0	3	42	45	0	0
1981	0	20	0	3	4	38	3	14	4	2	0	0
AVG	1	8	8	7	5	17	24	17	30	34	7	0

RIVERSIDE COUNTY

Hemet-State St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	19	5	22	57	84	15	10	0	0
1984							8	63	16	15	0	0
AVG	0	0	0	19	5	22	33	74	16	13	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Riverside-Rubidoux

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	13	13	414	386	906	920	879	169	235	35	0
1984	0	14	69	138	632	485	770	717	416	144	18	0
1983	0	2	39	8	618	602	1238	930	638	114	19	0
1982	0	15	10	56	207	203	795	1010	491	74	0	0
1981	14	12	23	121	199	867	700	1068	706	31	36	5
AVG	3	11	31	147	408	613	885	921	484	120	22	1

Riverside-Magnolia

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0											
1981	0	8	0	90	58	409	355	549	287	13	11	1
AVG	0	8	0	90	58	409	355	549	287	13	11	1

Riverside-UCR Weather Shack

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	30	10	78	174	242	707	401				
1981	6	13	16	210	134	710	581	659	331	6	4	21
AVG	3	22	13	144	154	476	644	530	331	6	4	21

Perris

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	2	158	178	516	428	479	114	118	6	0
1984	0	0	17	30	270	254	418	385	91	44	0	0
1983	0	0	19	0	358	353	576	384	329	44	4	0
1982	0	6	9	51	162	243	628	446	220	51	2	0
1981	0	3	13	153	176	697	767	790	485	21	9	15
AVG	0	2	12	78	229	413	563	497	248	56	4	3

Norco-Norconian

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	10	23	374	198	683	438	552	136	214	27	0
1984	0	0	3	158	332	204	446	397	469	122	11	0
1983	0	8	53	2	354	311	918	801	487	141	27	0
1982	0	18	2	25	91	43	399	619	506	99	0	6
1981	1	51	6	114	101	611	442	835	434	73	48	4
AVG	0	17	17	135	215	370	529	641	406	130	23	2

Riverside-RCC

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982							399	1142	508			
AVG							399	1142	508			

SAN BERNARDINO COUNTY

San Bernardino

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	4	12	27	273	316	1529	1208	1286	796			
AVG	4	12	27	273	316	1529	1208	1286	796			

Upland-ARB or UCR Orange#1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	9	8	379	344	974	810	732	142	157	9	0
1984	0	9	72	90	618	501	900	824	332	108	10	0
1983	0	4	19	4	757	700	1276	901	715	108	15	0
1982	0	25	9	65	344	295	1493	1325	639	129	0	0
1981	1	14	3	265	310	1353	1097	1420	721	29	24	9
AVG	0	12	22	161	475	765	1115	1040	510	106	12	2

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Fontana-Foothill Trailer

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	1	21	100							
1981	0	19	6	255	388	1660	1418	1594	804	50	6	0
AVG	0	10	4	138	244	1660	1418	1594	804	50	6	0

Lake Gregory

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	1	15	249	455	1475	1380	796	205	38	6	0
1984	0	1	61	91	1087	1092	1199	1271	233	128	3	0
1983	0	0	7	18	821	1065	1445	846	738	16	2	0
1982	0	14	10	187	356	615	1410	1155	373	95	0	0
1981	0	0	13	245	337	1619	1532	1277	597	20	12	3
AVG	0	3	21	158	611	1173	1393	1069	429	59	5	1

Yucaipa

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	2	9	44	355	431	1433						
AVG	2	9	44	355	431	1433						

Big Bear Lake

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985						244	208	159	12	12		
1984								36	4			
AVG						244	208	98	8	12		

Redlands

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	7	6	266	339	988	981	758	116	150	6	0
1984	0	1	22	57	648	604	827	956	227	120	6	0
1983	0	0	11	5	561	589	1097	771	576	34	8	0
1982	0	0	0	100	374	397	941	937	303	49	0	0
1981	0	1	11	237	314	907	634	739	319	1	1	2
AVG	0	2	10	133	447	697	896	832	308	71	4	0

San Bernardino-East 3rd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	3	1	395	369	991	814	457	92	146	23	0
1984	0	3	31	81	721	648	906	954	265	119	3	0
1983	0	0	22	10	724	699	1239	869	663	67	8	0
1982	0	5	6	97	399	399	1202	1144	485	56	0	0
1981	1	16	23	343	465	1440	1107	1259	691	11	6	3
AVG	0	5	17	185	536	835	1054	937	439	80	8	1

Mt Baldy-Fire Dept

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981					232	1709	1613	1133	854	46		
AVG					232	1709	1613	1133	854	46		

Cajon-3NW

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981						1605	1594	1188	599	45		
AVG						1605	1594	1188	599	45		

Fontana-Arrow Highway

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	7	10	376	439	1370	1105	817	168	185	9	0
1984	0	9	91	123	876	668	1112	1037	408	149	17	0
1983	0	0	19	8	760	728	1411	920	755	112	18	0
1982	0				25	297	845	981	462	85	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1981									679	29	54	0
AVG	0	5	40	169	525	766	1118	939	494	112	20	0

Chino-13251 Central Ave

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	9	17	320	199	590	351	519	105	143	21	0
1984							484	522	355	112	12	0
AVG	0	9	17	320	199	590	418	521	230	128	17	0

Hesperia

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985						180	9	4	0	0	0	0
AVG						180	9	4	0	0	0	0

LOS ANGELES COUNTY

Azusa

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	11	33	331	291	929	749	837	158	186	27	0
1984	0	18	99	154	628	438	928	873	485	144	23	0
1983	1	15	23	5	596	538	1206	1046	844	141	26	0
1982	0	27	7	78	269	164	696	1046	758	169	5	0
1981	0	19	3	171	312	1281	1092	1230	511	34	8	16
AVG	0	18	33	148	419	670	934	1006	551	135	18	3

Burbank

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	11	12	175	107	497	364	564	174	95	14	0
1984	0	2	18	56	265	131	262	283	207	32	14	0
1983	0	8	5	0	376	202	567	662	704	137	5	0
1982	0	26	0	34	91	63	503	374	369	68	0	0
1981	0	0	0	20	86	438	506	546	373	0	0	0
AVG	0	9	7	57	185	266	440	486	365	66	7	0

N Long Beach

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	9	26	1	44	19	48	9	7	1	0
1984	0	5	0	33	17	1	23	2	82	31	0	0
1983	0	0	0	0	1	3	48	50	101	14	0	0
1982	0	3	0	0	3	0	3	3	37	3	0	0
1981	0	1	0	0	17	37	13	53	7	0	0	0
AVG	0	2	2	12	8	17	21	31	47	11	0	0

Reseda

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	28	12	206	212	339	307	191	77	31	5	0
1984	0	2	42	32	281	312	425	320	146	42	8	0
1983	0	19	0	0	252	218	259	253	310	88	1	0
1982	0	38	4	49	139	114	346	218	143	38	0	0
1981	0	2	5	105	177	351	419	549	287	6	11	1
AVG	0	18	13	78	212	267	351	306	193	41	5	0

Pomona

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	2	15	316	209	709	611	625	90	117	14	0
1984	0	4	30	89	380	285	618	583	301	71	5	0
1983	0	0	12	0	469	398	1069	882	478	47	6	0
1982	0	9	1	21	108	88	595	735	500	43	0	0
1981	0	7	2	82	139	791	663	775	225	0	0	1
AVG	0	4	12	102	261	454	711	720	319	56	5	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Lennox

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	11	12	0	10	15	2	0	1	0	0
1984	0	0	4	15	10	0	0	0	51	15	0	0
1983	0	0	0	0	17	0	15	23	38	9	4	0
1982	0	1	0	3	3	0	2	0	11	1	0	0
1981	0	0	0	2	24	28	5	2	2	0	0	0
AVG	0	0	3	6	11	8	7	5	20	5	1	0

Whittier

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	28	153	74	316	171	375	83	136	24	0
1984	0	5	27	141	163	82	271	104	340	76	18	0
1983	0	0	23	1	106	48	484	638	310	101	14	0
1982	0	26	3	18	39	3	152	271	363	31	0	0
1981	0	19	0	41	71	299	306	377	110	13	0	0
AVG	0	10	16	71	91	150	277	353	241	71	11	0

Newhall

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	1	32	5	80	335	393	805	590	108			
1981	0	2	8	228	452	1356	1188	799	295	9	2	0
AVG	1	17	7	154	394	875	997	695	202	9	2	0

Pasadena-Walnut

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	22	1									
1981	0	13	3	56	163	935	1013	987	469	17	0	0
AVG	0	18	2	56	163	935	1013	987	469	17	0	0

Lynwood

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	30	5	65	27	101	13	14	3	0
1984	0	0	1	49	49	7	59	36	148	12	2	0
1983	0	0	0	0	13	5	100	145	155	14	0	0
1982	0	19	0	12	6	0	5	33	136	14	0	0
1981	0	10	0	3	36	62	29	64	20	1	0	0
AVG	0	6	0	19	22	28	44	76	94	11	1	0

Pico Rivera

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	22	172	134	446	238	435	78	104	31	0
1984	0	8	53	132	249	133	336	391	370	99	23	0
1983	0	8	21	4	255	194	584	724	550	91	23	0
1982	0	52	6	43	95	27	332	406	523	98	1	0
1981	0	55	6	81	195	661	516	623	103	26	0	0
AVG	0	25	22	86	186	292	401	516	325	84	16	0

W Los Angeles-Robertson

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	4										
1984	0	0	36	75	87	12	68	40	279	35	4	0
1983	0	0	0	4	31	8	103	215	259	91	11	0
1982	0	18	1	20	26	3	25	44	234	42	1	0
1981	0	20	0	34	73	190	123	191	66	3	0	0
AVG	0	8	9	33	54	53	80	123	210	43	4	0

Los Angeles-North Main

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	1	26	136	41	292	133	372	73	64	18	0
1984	0	4	39	117	187	72	241	135	223	37	9	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1983	0	1	0	0	86	56	278	367	438	74	11	0
1982	0	37	2	29	58	20	206	188	435	61	0	0
1981	0	12	0	26	145	399	343	502	205	15	0	0
AVG	0	11	13	62	103	168	240	313	275	50	8	0

Pasadena-Wilson

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	15	49	370	228	845	639	814	198	174	44	1
1984	0	16	139	198	606	329	726	627	509	110	35	0
1983	1	27	24	7	490	422	975	1013	917	181	21	0
1982			0	107	184	128	700	649	586	54	7	0
AVG	0	19	53	171	377	431	760	776	553	130	27	0

Newhall-County Fire Station

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	34	1	168	291	669	591	225	89	54	4	0
1984	0	0	10	2	545	481	576	547	90	41	4	0
1983	0	5	0	3	596	605	363	261	581	53	0	0
1982										93	0	0
AVG	0	13	4	58	477	585	510	344	253	60	2	0

W Los Angeles-VA Hosp

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	46	34	13	63	82	177	105	57	34	0
1984					12	14	94	50	290	38	10	0
AVG	0	0	46	34	13	39	88	114	198	48	22	0

Mt Lee

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	1	87	21	63	125	40	322	230				
1981					209	525	364	170	4	36	49	33
AVG	1	87	21	63	167	283	343	200	4	36	49	33

Glendora-Laurel

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	26	74	550	428	1347		1270		289	27	0
1984	1	31	177				1308	1097	566	188	13	0
1983	1	15	43	14	823	835	1575	1245	967	215	24	0
1982	1	64	17	142	449	345	1440	1544	973	236	15	0
1981	1	39	22	67	459	564	1088	1616	898	137	85	36
AVG	1	35	67	193	540	773	1353	1354	851	213	33	7

Beverly Hills-Franklin Cn

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	23	0	73	60	224	3	427	254	81	0	
1984								20	359	46	19	0
AVG	0	23	0	73	60	224	3	224	307	64	10	0

SAN DIEGO AIR BASIN

SAN DIEGO COUNTY

El Cajon

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	0	7	0	0	28	20	19	1				
AVG	0	7	0	0	28	20	19	1				

Chula Vista

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	5	17	4	11	21	3	0
1984	0	0	0	22	1	0	0	0	17	5	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1983	0	0	4	7	6	0	0	10	1	76	0	0
1982	0	2	1	1	0	0	0	0	17	63	0	14
1981	0	13	3	0	0	2	13	0	0	1	0	10
AVG	0	3	2	6	1	1	6	3	9	33	1	5

Escondido-Valley Parkway

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	35	4	31	38	51	14	21	3	0
1984	1	1	6	50	6	8	0	5	119	31	3	0
1983	0	0	4	0	7	6	110	109	51	81	13	0
1982	0	4	0		10	1	15	64	111	72	0	7
1981	0	34	4	0	16	41	18	40	3	9	4	16
AVG	0	8	3	21	9	17	36	54	60	43	5	5

San Diego-Island Ave

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	3	1	0	15	25	0	15	14	1	0
1984	1	0	0	14	5	0	0	0	16	7	1	0
1983	0	0	6	0	0	0	2	3	1	95	0	0
1982	0	2	0	1	0	0	0	3	3	1		14
1981	0	1	1	0	0	3	5	0	0	0	0	2
AVG	0	1	2	3	1	4	6	1	7	23	1	3

Oceanside-S Cleveland

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	4	26	4	0	0	0	0	13	139	1	
1981	0	101	25	0	0	86	1	1	8	51	42	51
AVG	0	53	26	2	0	43	1	1	11	95	22	51

San Diego-Overland

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	2	0	39	2	38	32	29	34	46	13	0
1984	1	2	1	34	25	0	0	0	105	8	0	0
1983	0	0	14	0	0	0	12	35	17	99	1	0
1982	0	11	0	1	0	0	1	4	62	88	2	16
1981	0	36	0	0	0	11	0	6	1	3	9	0
AVG	0	10	3	15	5	10	9	15	44	49	5	3

Alpine-Victoria

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	4	1	50	83	174	221	155	5	40	12	0
1984	0	2	10	29	97	113	109	102	59	1	2	0
1983	1	4	6	0	84	96	309	213	80	24	10	0
1982	1	0	0	2	37	13	140	155	131	39	2	1
1981	0	21	1	27	62	280	144	197	82	2	21	13
AVG	0	6	4	22	73	135	185	164	71	21	9	3

Solano Beach-Glenmont Dr

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	5	22	6	0							
1981	0	147	34	14	1	74	0	2	9	29	41	57
AVG	0	76	28	10	1	74	0	2	9	29	41	57

El Cajon-1155 Redwood

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	10	8	38	2	34	0	17	1	0
1984	0	0	2	59	18	3	6	19	102	23	0	0
1983	0	2	0	0	9	4	55	63	43	22	3	0
1982	0	1	1	12	12	0	9	45	67	33	0	2
1981									12	9	11	4
AVG	0	1	1	20	12	11	18	40	45	21	3	1

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Del Mar-Mira Costa College

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	8	5	54	0	44	10	5	33	24	17	0
1984	22	1	2	5	10	0	2	0	105	21	16	0
1983										69	36	0
AVG	11	5	4	30	5	22	6	3	69	38	23	0

Oceanside-1701 Mission Ave

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	3	45	0	37	24	4	32	36	17	0
1984	0	1	0	5	6	3	5	0	73	17	6	0
1983									0	168	14	0
AVG	0	1	2	25	3	20	15	2	35	74	12	0

NORTHEAST PLATEAU AIR BASIN

SHASTA COUNTY

Redding-1855 Placer St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984				0	0	0	0	0				
1983					0	0	0	0				
1982	0	0	0	0	0	0	0	0	0	0	0	
1981	0	0	0	0	0	0	5	2	12	0	0	0
AVG	0	0	0	0	0	0	1	1	6	0	0	0

Burney-1.5 N Black Rock

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984				0	0	0	0	0	0	0		
AVG				0	0	0	0	0	0	0		

SISKIYOU COUNTY

Yreka

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0		0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981			0	0	0					0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

SACRAMENTO VALLEY AIR BASIN

BUTTE COUNTY

Chico-Manzanita

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

COLUSA COUNTY

Colusa-Fairgrounds

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					0	0	0	0	0	0	0	
1984						0	3	0	0	0		
1983					0	0	0	0	0	0		
1982						0	0	0	0	1		
1981	0	0	0	0	0	0	0	0	0	0	0	
AVG	0	0	0	0	0	0	1	0	0	0	0	

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Arbuckle-Hillgate Road 2W

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					0	1	0	0	0	0	0	
1984						0	0	1	0	0		
AVG					0	1	0	1	0	0	0	

GLENN COUNTY

Willows-Villa Ave

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					0	0	0	0	1	0		
1984						0	0	0	0	0		
1983					2	0	0	0	0	2		
1982						0	0	0	0	0		
1981	0	0	0	0	0	0	0	0	0	0	0	
AVG	0	0	0	0	1	0	0	0	0	0	0	

SACRAMENTO COUNTY

Sacramento-Creekside School

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	0	0	0	0	4	0	7			
1981	0	0	0							0	0	0
AVG	0	0	0	0	0	0	4	0	7	0	0	0

Sacramento-Meadowview Rd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				0	0	1	0					
1984					0	0	2	0	0	0	0	
1983	0	0	0	0	0	0	2	0	0	0		
1982	0	0	0	0	0	0	0	0	6	0	0	0
1981	0	0	0	0	0	0	3	2	2	0	0	0
AVG	0	0	0	0	0	0	1	1	2	0	0	0

Folsom

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	41	93					
1984	0	0	0	0	10	53	123	34	73	0	0	0
1983	0	0	0	0	22	23	25	24	53	0	0	0
1982	0	0	0	0	0	17	159	12	23	0	0	0
1981	0	0	0	1	5	62	62	52	34	0	0	0
AVG	0	0	0	0	7	39	92	31	46	0	0	0

Citrus Heights-Sunrise Blvd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	1	0	37	90	12	0	47	0	0
1984	0	0	0	0	2	3	71	12	48	0	0	0
1983	0	0	0	0	15	10	9	8	22	0	0	0
1982	0	0	0	0	0	0	8	1	0	0	0	0
1981	0	0	0	0	0	41	54	21	6	0	0	0
AVG	0	0	0	0	3	18	46	11	15	9	0	0

North Highlands-Blackfoot

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	30	0	40	51					
1984	0	0	0	0	7	12	90	15	41	0	0	0
1983	0	0	0	0	13	5	31	21	2	0	0	0
1982	0	0	0	10	2	0	56	5	34	2	0	0
1981	0	0	0	2	0	47	27	27	12	10	0	0
AVG	0	0	0	8	4	21	51	17	22	3	0	0

Sacramento-Del Paso Manor

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1985	0	0	0	2	0	30	64					
1984	0	0	0	0	2	6	134	12	38	0	0	0
1983	0	0	0	0	24	5	59	19	34	0	0	0
1982	0	0	0	6	2	2	52	3	18	0	0	0
1981					0	40	76	27	18	3	0	0
AVG	0	0	0	2	6	17	77	15	27	1	0	0

SHASTA COUNTY

Redding-1615 Continental

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				0	0	6	3	0	0	0		
1984									0	0		
AVG				0	0	6	3	0	0	0		

SOLANO COUNTY

Vacaville

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985		0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	1	0		0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

SUTTER COUNTY

Yuba City-Ag Building

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					0	0		0	0	4	0	
1984					0	0	4	1	0	1		
1983					0	0	0	0	0	0		
1982		0	0	0	0	0	0	0	1	0	0	
1981										0	0	
AVG		0	0	0	0	0	1	0	0	1	0	

Pleasant Grove-4 SW

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					0	6		0	0			
1984					0	1	21	6	1	1		
1983					2	0	9	5	0	0		
1982								0	17	1	0	
AVG					1	2	15	3	5	1	0	

YOLO COUNTY

Woodland-West Main St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	2	1	0	0	0	0	0
1984	0	0	0	0	0	0	17	6	1	0	0	0
1983	0	0	0	0	0	0	3	2	1	0	0	0
1982	0	0	0	0	0	0	0	0	7	0	0	0
1981	0	0	0	0	0	20	15	38	9	0	0	0
AVG	0	0	0	0	0	4	7	9	4	0	0	0

Dunnigan-Rest I-5 E Area

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984					0	0	0	2				
1983					0	0	0	0	0	0		
1982					0	2	2	0	5	0	0	
AVG					0	1	1	1	3	0	0	

Davis Golf Course

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1985					0	1	0	0	0	0	0	
1984					0	0	3	2	1	0		
1983					1	0	2	0	0	0		
1982					0	0	2	1	3	0	0	
AVG					0	0	2	1	1	0	0	

Broderick-305 3rd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	5	0	0	9	0	0	3		0
1984	0	0	0	0	0	0	14	0	0	0	0	0
1983					0	0	2	7	1	0	0	0
AVG	0	0	0	3	0	0	8	2	0	1	0	0

SAN JOAQUIN VALLEY AIR BASIN

FRESNO COUNTY

Five Points

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984	0	0					0	0				
1983	0	0	0	0	0	0	0	0	0	1	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Parlier

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	2			82		68	13	141		
1984	0	0	0	3	98	58	73	32	23	1	0	0
1983										75	0	
AVG	0	0	1	3	98	70	73	50	18	72	0	0

Coalinga

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983	0	0	0	0	0	0	0	0	0			
1982	0	0	0	0	0	1	0	0	0	0	0	0
1981	0	0	0	0	0	0					0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Fresno-Olive

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	10	1	47	10	16	19	19	0	0
1984	0	0	0	0	0	1	1	0	0	0	0	0
1983	0	0	0	0	18	0	8	6	5	0	0	0
1982	0	0	0	0	6	2	17	0	6	0	0	0
1981	0	0	0	26	0	20	1	3	21	0	0	0
AVG	0	0	0	7	5	14	7	5	10	4	0	0

Shaver Lake

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983	0	0	0	0	0		0	0	0	0		
1982	0	0	0	0	0	0	3	0	1	0		0
1981	0	0	0	0	0	0	0	7	0	0	0	0
AVG	0	0	0	0	0	0	1	2	0	0	0	0

Fresno-1246 L St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983	0	0	0	0	29	0						
1982	0	0	0	0	11	13	15	18	8	2	0	0
1981	0	0	0	18	0	20	12	33	19	0	0	0
AVG	0	0	0	6	13	11	14	26	14	1	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

Fresno-5704 E Butler

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	36	5	1	1	50	0	22	2	0
1984	0	0	0	0	39	63	51	48	33	2	0	0
1983	0	0	0	0	62	9	51	32	76	5	0	0
1982	0	0	0	3	34	31	76	57	55	2	0	0
1981	0	0	0	0	2	80	70	85	24	0	0	0
AVG	0	0	0	8	28	37	50	54	38	6	0	0

Fresno-Cal State #2

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	26	0	33	25	41	45	45	0	
1984	0	0	0	1	57	34	88	60	68	0	0	0
1983	0	0	0	0	46	10	39	10	48	13	0	0
1982	0	0	0	2	46	29	99	47	68	1	0	0
1981	0	0	0	27	8	152	103	95	51	19	1	0
AVG	0	0	0	11	31	52	71	51	56	16	0	0

Fresno-4232 Herndon-Sky Pky

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	1	0	9	19	0	0	0	0	0
1984	0	0	2	1	31	16	60	23	42	0	0	0
1983										7	0	0
AVG	0	0	1	1	16	13	40	12	21	2	0	0

Fresno-4706 E Drummond

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	22	0	33	51	23	17	28	2	0
1984							8	11	24	0	0	0
AVG	0	0	0	22	0	33	30	17	21	14	1	0

KERN COUNTY

Bakersfield-Chester

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	13	5	25	10	59	15	1	0	0
1984	0	0	0	0	2	1	13	6	7	0	0	0
1983	0	0	0	0	15	6	13	24	34	3	0	0
1982	0	0	0	0	15	5	26	33	30	0	0	0
1981	0	0	0	1	0	25	11	37	23	2	0	0
AVG	0	0	0	3	7	12	15	32	22	1	0	0

Oildale-Manor

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983	0	0	0	0	24	3	15	17	15			
1982	0	0	0	0	1	9	23	15	19	0	0	0
1981	0	0	0	0	0	13	1	7	7	4	0	0
AVG	0	0	0	0	8	8	13	13	14	2	0	0

Edison-(Bakersfield)-1 East

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	16	12	72	68	135	55	35	0	0
1984	0	0	0	0	0	0	26	127	122	5	0	0
1983	0	0	0				28	65	74	3	0	0
1982	0	0	0	0	4	18	87	67	88	10	0	0
1981	0	0	0	20	1	89	223	234	64	1	0	0
AVG	0	0	0	9	4	45	86	126	81	11	0	0

Oildale-3311 Manor

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	33	19	27	12	6	0	0
1984	0	0	0	0	2	0	28	43	18	0	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1983										3	0	0
AVG	0	0	0	0	1	17	24	35	15	3	0	0

KINGS COUNTY

Hanford

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	12	3	14	0	0
1984	0	0	0	0	3	1	9	1	1	0	0	0
1983		0	0	0	26	0	1	0	10	5	0	0
1982	0	0	0	0	0	0	1			0	0	0
1981	0	0	0	0	0	1	0	0	0	0	0	
AVG	0	0	0	0	6	0	2	3	4	4	0	0

Kettlemen City-Cal

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982						0	0	0	0	0		
AVG						0	0	0	0	0		

MADERA COUNTY

Madera-Health Dept

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981					0	20	11	8	0			
AVG					0	20	11	8	0			

MERCED COUNTY

Merced-Health Dept

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	0	0	0									
1981											0	0
AVG	0	0	0								0	0

Merced College

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982						15	68	36	23	0		
AVG						15	68	36	23	0		

SAN JOAQUIN COUNTY

Stockton-Hazelton St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	5	0	1	11	1	0	11	0	
1984	0	0	0	0	0	0	9	3	7	0	0	0
1983	0	0	0	0	1	0	9	10	17	1	0	0
1982	0	0	0	0	0	0	1	0	4	0	0	0
1981	0	0	0	8	0	17	8	19	0	5	0	0
AVG	0	0	0	3	0	4	8	7	6	3	0	0

Lodi-Ham

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982					0	0	1	0	8			
1981					0	6	1	3	1	0		
AVG					0	3	1	2	5	0		

Stockton-13521 E Mariposa

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					0	22	31	7	2	20		
1984					5	4	96	5	30	0		
1983						0	1	35	37	1		
AVG					3	9	43	16	23	7		

TABLE OF MONTHLY OZONE DOSES >10 PPHM

STANISLAUS COUNTY

Modesto-J St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	0	0	0	0								
AVG	0	0	0	0								

Turlock-Monte Vista

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985				1	1	49	59	11	12	40	1	
1984			0	0	18	16	147	13	31	0		
1983					7	2	12	14	23	12		
1982					0	2	1	1	5			
1981					0	18	34	36	14	0		
AVG			0	1	5	17	51	15	17	13	1	

Valley Home-School

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982					2	0	0	2	0			
AVG					2	0	0	2	0			

Modesto-14th St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	2	0	8	45	2	1	12	0	
1984	0	0	0	0	9	2	61	1	9	0	0	0
1983	0	0	0	0	0	0	1	7	14	0	0	0
1982	0	0	0	0	0	0	2	0	0	0	0	0
1981		0	0	0	0	55	34	32	5	0	0	0
AVG	0	0	0	0	2	13	29	8	6	2	0	0

Modesto-7007 Jennings Rd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984					4	0	29	0	7	0		
AVG					4	0	29	0	7	0		

TULARE COUNTY

Visalia-Church St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	1	14	9	10	26	0	0
1984	0	0	0	0	1	19	29	18	1	0	0	0
1983	0	0	0	0	16	10	21	9	27	0	0	0
1982	0	0	0	0	3	12	44	1	25	0	0	0
1981	0	0	0	0	0	21	11	23	4	0	0	0
AVG	0	0	0	0	4	13	24	12	13	5	0	0

Sequoia-Ash Mt

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985					6	74	65	7	0			
1984							13	6	19			
1983						0	17	21	3	0		
1982						27	159	114	90	0		
AVG					6	34	64	37	28	0		

Sequoia-Giant Forest

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985						17	6	52	2	0		
AVG						17	6	52	2	0		

Sequoia-Lodgepole

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983							12	2	0	0		

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1982						0	20	1				
AVG						0	16	2	0	0		

Sequoia-Lookout Pt

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983				0	0	8	22	3	3	0		
AVG				0	0	8	22	3	3	0		

Mountain Home SF HQ

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1984						4	0	9	2	0		
AVG						4	0	9	2	0		

GREAT BASIN VALLEYS AIR BASIN

INYO COUNTY

Bishop

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981				0	0	0	0	0	0	0		
AVG				0	0	0	0	0	0	0		

MONO COUNTY

Mammoth Lakes-Sierra

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1983						0	0	0	0	0	0	
1982					0	0	0	0	0	0		
AVG					0	0	0	0	0	0	0	

Mammoth Lakes-Gateway HC

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	0
1984				0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

SOUTHEAST DESERT AIR BASIN

IMPERIAL COUNTY

El Centro-State St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	9	13	2	0		0		
1984	0											
1983	0	1	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	1	0	0	0	0	0	0	0	0	0	7	23
AVG	0	0	0	0	2	3	1	0	0	0	2	8

RIVERSIDE COUNTY

Palm Springs-Fire Station

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	35	40	137	140	107	24	0	0	0
1984	0	0	4	9	148	141	270	159	10	3	0	0
1983	0	0	0	1	164	166	183	96	64	0	0	0
1982	0	0	0	19	89	204	238	120	46	7	0	0
1981	0	0	1	66	164	196	237	312	118	0	0	0
AVG	0	0	1	26	121	169	214	159	52	2	0	0

Indio-Oasis St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	19	7	144	59	58	11	0	0	0
1984	0	0	0	2	99	114	87	67	2	0	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

1983	0	2	2	4	133	134	121	57	58	0	0	0
1982	0	0	0	5	14	84	140	47	11	0	0	0
1981	0	0	0	8	23	118	163	115	51	0	0	0
AVG	0	0	0	8	55	119	114	69	27	0	0	0

Banning-Allesandro

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	2	61	116	238	283	253	33	13	0	0
1984	0	0	9	9	153	184	359	277	70	12	0	0
1983	0	0	5	0	251	241	326	358	218	9	0	0
1982	0	0	1	53	184	248	357	193	91	14	0	0
1981	0	0	0	68	114	206	337	203	40	0	0	0
AVG	0	0	3	38	164	223	332	257	90	10	0	0

SAN BERNARDINO COUNTY

Barstow

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	1	1	15	25	11	1	0			0
1984	0	0	0	0	5	2	5	1	0	0	0	0
1983	0	0	0	0	6	63	58	42	55	0	0	0
1982	0	0	0	2	0	9	12	23	5	2	0	0
1981	0	0	0	0	3	23	62	47	3	0	0	0
AVG	0	0	0	1	6	24	30	23	13	1	0	0

Trona

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	1	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0		0	0	0	0		0
1981	0	0	0	0	0	0	11	63	7	0	0	0
AVG	0	0	0	0	0	0	2	13	2	0	0	0

Victorville-Fairgrounds

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	27	40	300	303	136	31	0	0	0
1984	0	0	4	5	106	132	195	210	14	1	0	0
1983	0	0	0	0	116	145	148	160	158	0	0	0
1982	0	0	0	8	14	87	210	92	0	56	1	0
1981	0	1	0	24	40	323	143	238	46	0	0	0
AVG	0	0	1	13	63	197	200	167	50	11	0	0

Twentynine Palms-Adobe

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	6	15				0	0	0
1984	0	0	0	0	39	6	9	0	0	1	0	0
1983	0	0	0	0	3	37	18	20	5	0	0	0
1982	0	0	0	0	4	15	8	17	3	0	0	0
1981	0	0	0	0	2	12	5	28	0	0	0	0
AVG	0	0	0	0	11	17	10	16	2	0	0	0

LOS ANGELES COUNTY

Lancaster

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	5	41	88	226	250	193	76	7	0	0
1984	0	0	0	3	101	127	178	223	36	11	0	2
1983	0	0	0	0	71	145	140	72	133	2	0	0
1982	0	5	1	1	23	48	99	148	8	9	0	0
1981	0	0	4	82	110	323	707	432	173	9	0	0
AVG	0	1	2	25	79	174	275	214	85	8	0	0

TABLE OF MONTHLY OZONE DOSES >10 PPHM

MOUNTAIN COUNTIES AIR BASIN

MARIPOSA COUNTY

Yosemite-Camp 6

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981							0	0	0	0		
AVG							0	0	0	0		

PLACER COUNTY

Rocklin-Sierra College

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	3	0	46	48	21	0	26	0	0
1984	0	0	0	0	1	8	51	3	10	0	0	0
1983	0	0	0	0	24	1	49	27	11	2	0	0
1982	0	0	0	2	2	8	36	15	0	0	0	0
1981	0	0	0	3	2	35	43	25	16	3	0	0
AVG	0	0	0	2	6	20	45	18	7	6	0	0

Auburn-Dewitt "C" St

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	12	35	13	0	2	0	0
1984	0	0	0	0	8	7	30	0	1	0	0	
1983								13	15	3	0	0
1982	0	0	0	0	0	12	50	12	2	0	0	0
1981	0	0	0	10	0	16	35	30	17	0	0	0
AVG	0	0	0	3	2	12	38	14	7	1	0	0

LAKE COUNTY AIR BASIN

LAKE COUNTY

Lakeport

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0			0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

Clearlake Highlands-F.D.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1981	0	0	0	0	0							
AVG	0	0	0	0	0							

LAKE TAHOE AIR BASIN

EL DORADO COUNTY

S Lake Tahoe-Bijou School

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0

S Lake Tahoe-3377 Tahoe Blvd

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1985	0	0	0	0	0	0	0	0	0	0	0	
1984	0	0	0	0	0	0	0	0	0	0	0	0
1983		0	0	0	0	0	0	0	0	0	0	0
AVG	0	0	0	0	0	0	0	0	0	0	0	0