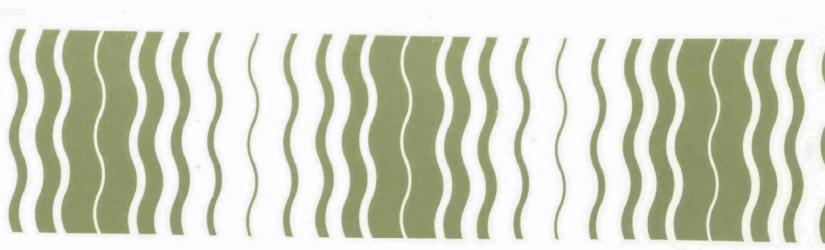
Pesticide



National Study of Hospitalized Pesticide Poisonings 1974 - 1976





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF PESTICIDES AND TOXIC SUBSTANCE:

MEMORANDUM

DATE: September 11, 1980

SUBJECT: The National Study of Hospitalized Pesticide

Poisonings, 1974-1976

TO: Addressees

FROM: Director of Health Effects Branch Projects

Health Effects Branch (TS-769-M)

Hazard Evaluation Division Office of Pesticide Programs

U.S. Environmental Protection Agency

We are pleased to distribute "The National Study of Hospitalized Pesticide Poisonings, 1974-76. "This study was coordinated for the Office of Pesticide Programs under contract to the Colorado Epidemiologic Pesticide Studies Center and conducted with the assistance of the Epidemiologic Studies Projects in eleven other states.

As an indispensable contribution to the Pesticide Incident Monitoring System (PIMS), the Study presents national, regional and state estimates for hospitalized pesticide poisonings. Information has been compiled annually for the years 1974 through 1976 on hospitalized poisonings by cause of exposure (occupational, non-occupational, intentional, or unclassified), by selected occupation, by age group, and by major pesticide class.

In extending the data compiled from the 1971-73 Study, the current study provides opportunity for the analysis of trends in the incidence of pesticide poisonings. Although the overall national rate of hospitalized pesticide poisonings given by the two studies has remained relatively stable over the six years from 1971 through 1976 (at about 8.7 per 100,000 admissions, or approximately 2,900 per year), regional rates have differed. On a yearly basis, EPA Regions IV, VI, and IX showed rates consistently higher than the national rate, while Regions I, II, and V had consistently lower rates than those for the U.S. as a whole. Rates for Regions III, VII, VIII, and X fluctuated yearly.

Occupational poisonings reported by the two studies have fluctuated annually, accounting for between 22% and 31% of hospitalized pesticide poisonings. Farmers and agricultural workers were the only groups whose average rates for the second 3-year study did not drop as compared with 1971-73. While the numbers of farmer poisonings rose steadily from 1971 to 1975, with a sharp drop in 1976, poisonings reported for agricultural workers remained relatively stable from 1971 through 1973, dropped in 1974, and rose sharply in 1975 and 1976.

Children under age 4 accounted for over 36% of the hospitalized pesticide poisonings reported for 1974 through 1976 and 65% of the nonoccupational group. The average estimate of 1127 annual poisonings for children under age 4 gave an incidence rate of 3.3 per 100,000 admissions.

Staff of the Health Effects Branch extend their thanks to the hospitals who participated in this study. We are hopeful that this information will provide assistance in your state and regional efforts.

Van P. Kozak

Addressees:
E.P.A. Regional Pesticide Chiefs
State Health Directors
State Agency Directors
State Agricultural Extension Agents
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NATIONAL STUDY OF HOSPITALIZED PESTICIDE POISONINGS, 1974-1976

Final Report

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Credit Line and Disclaimer

Conclusions are subject to change on the basis of additional information and evidence. Information contained herein is not to be reprinted or published without written permission of the Environmental Protection Agency. The views expressed herein are those of the investigators and do not necessarily reflect the official viewpoint of the Environmental Protection Agency. These investigations were supported through a contract with the Epidemiologic Studies Program, Health Effects Branch, Hazard Evaluation Division of the U.S. Environmental Protection Agency, Washington, D.C. 20460.

ACKNOWLEDGMENTS

This study was conducted by the Epidemiologic Pesticide Studies Center of Colorado State University in cooperation with the other Epidemiologic Pesticide Studies Centers and Projects under Contract No. 68-01-4663 with the Epidemiologic Studies Program, Health Effects Branch, Hazard Evaluation Division, Office of Pesticides Programs, Environmental Protection Agency. The project staff included the following personnel:

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The assistance of hospital administrators, record librarians, and other authorities is greatly appreciated. Project officers for the Environmental Protection Agency are Dr. C. Wesley Miller, Colorado; Dr. Lee Leiserson, Iowa; Dr. John Kliewer, South Carolina.

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OBJECTIVE

The objective of the National Study of Hospital Admitted Pesticide Poisonings was to determine nationwide incidence rates for hospitalized acute pesticide poisoning cases among those persons admitted to general-care hospitals during the years 1974 to 1976, and to compare the incidence rates obtained with those obtained in the National Study of Hospitalized Pesticide Poisonings covering the interval 1971-1973 (1).

BACKGROUND

The use of pesticides throughout the United States continues to become increasingly widespread (2), and more people are being exposed to these potentially hazardous compounds. There is a growing concern that, along with increased pesticide use and exposure, the national incidence of pesticide-related morbidity and mortality may also be increasing.

Since all pesticides are toxic, exposure to these compounds through improper use or accident can lead to illness and even death. Acute or chronic exposure can occur by the oral, dermal, or respiratory routes. Examples of exposure are by means of intentional or accidental ingestion, occupational contamination, or through incidental exposure resulting from small amounts of pesticides in air, food, and water (3).

Morbidity and mortality associated with pesticide exposure may be influenced by a number of contributing factors such as the pesticide's toxicity, formulation, and its route of exposure, and the age, sex, health status, or other characteristics of the exposed individuals. Mortality estimates related to pesticide intoxications are usually more reliable than morbidity data. Previous pesticide mortality studies in the United States indicated that deaths due to pesticide intoxication have been reduced over the last two decades. A study based on U.S. vital statistics for the years

1946 to 1956 recorded that pesticides accounted for approximately 150 deaths annually, and that the death rate associated with all pesticides in the U.S. was about 1.0 per million population (3). A national study of U.S. deaths in 1961 demonstrated that 111 poisoning deaths were attributed to identifiable pesticides (4). More recent mortality studies have provided data which reveal a downward trend in the number of pesticide poisoning deaths. A review of 1969 U.S. deaths demonstrated that pesticides accounted for 87 deaths (5), and a similar study revealed that 61 deaths due to pesticide intoxication occurred in 1973, and 52 occurred in 1974 (6). Following the study on mortality from pesticides in the U.S. during 1973 and 1974, Hayes and Vaughn (6) concluded that the reduction in pesticide-caused deaths has been accompanied by a continuing reduction in poisonings involving children less than 10 years old and by a decrease in the proportion of pesticide deaths among places with populations greater than 2500.

Morbidity statistics for the U.S. are much less complete than the mortality data. The national study (1) for the period 1971-1973 and the recent national study for the period 1974-1976 were conducted to obtain more comprehensive pesticide morbidity indices for the total U.S. population. The National Clearing House for Poison Control Centers throughout the U.S. also compiles poisoning data that includes information on pesticide-related incidents. However, the majority of previous studies of pesticide-related morbidity have focused on selected geographic regions of the country. Such studies were conducted in Florida for 1956-1967 data (7), in New Orleans, Louisiana for 1965-1967 (8), in the Lower Rio Grand Valley of Texas from 1961-1969 (9, 10), in South Carolina from 1971-1973 (11), and in Allegheny County, Pennsylvania from 1972-1973 (12).

The Colorado Epidemiologic Pesticide Studies Center's study of hospitalized acute pesticide poisonings during the years 1971-1973 was completed

in 1975 (1). It was the first study to collect uniform national data for acute pesticide poisonings admitted to general-care hospitals in the United States. A stratified random sample of the 7000 general-care hospitals in the United States was used to estimate national incidence rates for pesticiderelated morbidity and mortality. From the number of deaths observed in the study sample, it was estimated that 49, 92 and 54 deaths due to pesticide intoxication occurred in the United States during the years 1971, 1972, and 1973, respectively. These estimates indicated that with the exception of 1972, pesticide-related mortality is steadily decreasing with time. On the other hand, the study's morbidity estimates of 2596, 2921, and 2831 cases for the years 1971, 1972, and 1973, respectively, indicate an increase in hospitalized acute pesticide illness. Nationwide estimates of incidence rates were 8.2 cases per 100,000 hospital admissions in 1971, 8.8 in 1972, and 8.5 in 1973. Nonoccupational pesticide poisonings, excluding intentional poisonings, accounted for approximately half of the poisoning episodes; 1294, in 1971, 1725 in 1972, and 1446 in 1973. The number of hospitalized acute pesticide poisonings among children of ages of four years or less were estimated as 995, 1281, and 1001 for the years 1971, 1972, and 1973, respectively. Similarly, the rates of occupational pesticide poisonings did not increase in incidence, and they varied between 1.9 and 2.5 per 100,000 hospital admissions during 1971, 1972, and 1973.

Although data from the study of hospitalized acute pesticide poisonings during 1971 to 1973 has provided the first uniform and nationwide incidence estimates, there has not yet been a sufficient accumulation of data to determine the current pesticide-related illness trend in the United States. It will be necessary to acquire and analyze similar data for an extended time period in order to evaluate the validity of the incidence data and to determine the characteristics of pesticide poisoning trends.

SCOPE

This study extends the 1971-1973 study of hospitalized acute pesticide poisonings with data for the years 1974 through 1976. Previous estimates of pesticide poisoning incidence have focused on various geographic regions or have lacked uniformity in the identification, characterization, and reporting of pesticide poisonings. Consequently, there is a need to continue the development of a reliable assessment of the incidence of pesticide poisoning nationally.

The use of hospital-based data provides for the greatest uniformity and accuracy in identifying and studying cases, even though the actual incidence rate may be under-reported by this method. Thus, it will provide comparable data for analyzing and comparing trends during the six years of study.

METHODS

The objective of the study, as stated previously, was to develop nation-wide incidence rates for hospitalized acute pesticide poisoning cases among those persons admitted to general-care hospitals. The sample population were patients in the approximately 7,000 general-care hospitals in the United States. A hospital is classified general care by the American Hospital Association (AHA) if the majority of its admissions are general medical and surgery cases (13).

In this study, hospitals were the primary sampling units. From a complete list of general-care hospitals in the United States a probability sample was selected according to the following design. Each hospital represented a cluster of admissions. Once a hospital was selected the entire cluster was observed in order to count the number of pesticide cases occurring within the cluster. To increase precision of the estimates, the population of general-care hospitals was stratified according to state and hospital size within each state. From this sampling frame the study was selected.

The stratification plan was similar to that used in the previous study of hospitalized pesticide poisonings. Hospitals within each state were ranked according to their total number of admissions for 1975 as reported by the American Hospital Association. They were then divided into n strata of approximately equal size, where n represents the number of hospitals to be selected from each state. The value of n varied since the number of sampled hospitals was proportional to the number of hospitals listed for each state. From each stratum within a state, one hospital was selected at random. The stratified sample design used for each state is illustrated by the sampling of hospitals in Nevada, as displayed in Figure 1. Although the

FIGURE 1

STRATIFICATION OF GENERAL-CARE HOSPITALS IN NEVADA. THE SAMPLED HOSPITALS ARE DESIGNATED IN BOXES ALONG WITH THE RESPECTIVE ADMISSIONS.

STRATA	HOSPITAL	NUMBER OF ADMISSIONS
	1	207
	2	215
	3	458
I	4	516
	5	793
	6	1,220
	7	1,260
	8	1,294
	9	1,667
•	10	1,973
II	11	2,125
	12	2,291
	13	2,951
7	14	3,260
	15	4,255
	16	4,395
	17	6,260
III	18	9,920
	19	11,919
	20	18,574
	21	20,018

probability of obtaining a given hospital under this plan is approximately equal to the probability of obtaining that hospital using simple random sampling, stratification ensures that the distribution of admissions during the sampled hospitals will be representative of the distribution of admissions among all hospitals in the population of general-care hospitals.

A more detailed discussion of stratified random sampling can be found in most texts on statistical sampling. Cochran notes, "If intelligently used, stratification nearly always results in a smaller variance for the mean or total than is given by a comparable simple random sample" (14). Furthermore, in the present study, precision was increased by stratification in view of the following conditions:

- 1. The population was composed of hospitals varying widely in size.
- The principal variable to be measured was closely related to the size of the hospitals.
- 3. A good measure of size, namely, number of admissions, was available for setting up the strata.

Estimates of the incidence rate of hospitalized pesticide poisonings should take the sampling design into account. Of the many ways to estimate the incidence rate in stratified random sampling, two of the more natural estimators are the combined ratio estimate

$$\hat{Y}_{c} = \begin{pmatrix} \frac{n}{\Sigma} & \frac{N_{h}}{n_{h}} & y_{h} \\ \frac{h=1}{n} & \frac{N_{h}}{n_{h}} & x_{h} \\ \frac{\Sigma}{h=1} & \frac{h}{n_{h}} & x_{h} \end{pmatrix} \qquad X$$

and the stratified ratio estimate

$$\hat{Y}_{ST} = \sum_{h=1}^{n} \frac{x_h}{x_h} y_h$$

Within a given state, \hat{Y}_c and \hat{Y}_{ST} are estimates of the total number of hospitalized poisonings, n is the number of admissions strata, and is the total admissions of all hospitals within the state. Within the hth admissions stratum, N_h and X_h are, respectively, the number and total admissions of all hospitals, n_h and x_h are the number and total admissions of the sampled hospitals, and y_h is the number of observed hospitalized pesticide poisonings in the hth admissions stratum.

Although the stratified ratio estimate does not require the assumption that the true incidence rate remains constant from stratum to stratum it is susceptible to bias if the sample size within each stratum is small. Since typically only one hospital was selected within each admissions stratum this problem of bias arises. A better estimate of the incidence rate would be obtained by using the combined ratio estimate \hat{Y}_{c} , which is less susceptible under these circumstances. However, because typically only one hospital within each admissions stratum was selected, the variance of \hat{Y}_{c} cannot be directly estimated. Because the sampling plan renders the ratio N_{h}/n_{h} approximately constant over admissions strata, the combined ratio estimator is approximately equivalent to the simple ratio estimator

$$\hat{Y} = \begin{pmatrix} n & y_h \\ \frac{\Sigma}{h=1} & y_h \\ \frac{\Sigma}{h=1} & x_h \end{pmatrix} \quad \chi.$$

The estimator \hat{Y} arises from ignoring stratification by admissions and therefore assumes that the true incidence rate is constant over admissions Because \hat{Y} is approximately equivalent to \hat{Y}_C , and because an estimate of the variance of \hat{Y} can be obtained, it was decided to use \hat{Y} to estimate the incidence rate of hospitalized pesticide poisoning within each state.

Thus, for each year from 1974 to 1976, the sample was stratified with the main strata being the states. Because this report provides incidence rates for the 10 subdivisions of the nation designated as U.S. Environmental Protection Agency (EPA) regions, the following notation will be used where subpopulation refers to all general-care hospitals (i.e., AHA Class 10 hospitals), within a given state for a given year.

Incidence rates were estimated separately for each year of the interval 1974 to 1976 for individual states and for EPA regions. The following notation was used in estimating incidence of the sth state of region r:

n_{rs} = number of hospitals sampled;

 N_{rs} = number of hospitals in the sampled subpopulation;

 x_{rsi} = admission of the ith sampled hospital;

 y_{rsi} = number of cases seen in the ith sampled hospital;

 x_{rs} = admissions of all n_{rs} sampled hospitals;

 y_{rs} = total number of cases seen in all n_{rs} sampled hospitals;

 X_{rs} = total admissions of all hospitals in the 5th state, and

 $\hat{P}_{rs} = y_{rs}/x_{rs}$ denotes the proportion of total cases to total admissions for sampled hospitals.

Therefore, within the sth state of region r, the estimated incidence of pesticide related admissions can be expressed in terms of the number of admissions to the subpopulation; in particular,

$$\hat{Y}_{rs} = \hat{P}_{rs} X_{rs}$$

Thus, the incidence rate per 100,000 admissions is given by

$$\hat{R}_{rs} = 100,000 \, \hat{P}_{rs}$$

The variance of the estimator was calculated according to the formula used for simple ratio estimators:

$$V[\hat{Y}_{rs}] = \frac{(N_{rs} - n_{rs}) N_{rs}}{n_{rs} (n_{rs} - 1)} \sum_{i=1}^{n_{rs}} (y_{rsi} - \hat{P}_{rs} x_{rsi})^{2}$$

$$V[\hat{R}_{rs}] = \frac{(100,000)^2}{X_{rs}} V[\hat{Y}_{rs}]$$

The appropriate estimate of incidence for a region is simply the sum of the estimates of incidence for the states within the region:

$$\hat{Y}_r = \sum_{s=1}^{n_r} \hat{Y}_{rs} .$$

Where n_r is the number of states in the region. Since the estimates for the states within a region are independent, the variance of the estimate for the region is simply the sum of the variances of the state estimates in the region:

$$V[\hat{Y}_r] = \sum_{s=1}^{n_r} V[\hat{Y}_{rs}]$$

Expressed as a rate in terms of 100,000 admissions, the incidence and corresponding variance are, respectively:

$$\hat{R}_r = \frac{\hat{Y}_r}{X_r} \times 100,000$$

and

$$V[\hat{R}_r] = \left(\frac{100,000}{X_r}\right)^2 V[\hat{Y}_r]$$

Where X_r is the total admissions of all hospitals in the region.

Besides total incidence (\hat{Y} and \hat{R}) it was desirable to obtain incidence rates for various segments of the population. For example, the incidence rates of intentional and accidental poisonings were of interest as were incidence rates for various age groups in the population. The estimation of such incidence rates followed the same ratio estimation procedure as described above.

Nonresponse of selected hospitals was taken into consideration in the study design. The hospital administrator at each selected hospital was initially notified by letter of the hospital's selection and of the approximate date that a field epidemiologist would be visiting the hospital. Personal visits to hospitals were used in an effort to increase hospital participation, although it was anticipated that some hospital administrators would deny their hospital's participation. Other factors leading to non-response were due to the hospital's inability to identify the appropriate ICDA codes or unavailability of hospital administrator or record librarian at the time of the field visit.

The population of hospitals were divided into two main strata: those participating hospitals for which patient records were available; and those hospitals for which records were not accessible, even after a second contact was made in an attempt to obtain the needed records. A random subsample of the hospitals in the nonresponse stratum was selected in order to compare characteristics of these hospitals with those of participating hospitals.

Field epidemiologists were trained to abstract records for all patients with the designated ICDA codes. The training consisted of a workshop course, which was held in Fort Collins, Colorado in July 1977. Investigators followed specific and standard directions in abstracting data from hospital

records in order to obtain maximum uniformity in data. The completed data forms were edited and coded according to the procedures presented in the training manual for the study (Appendix T).

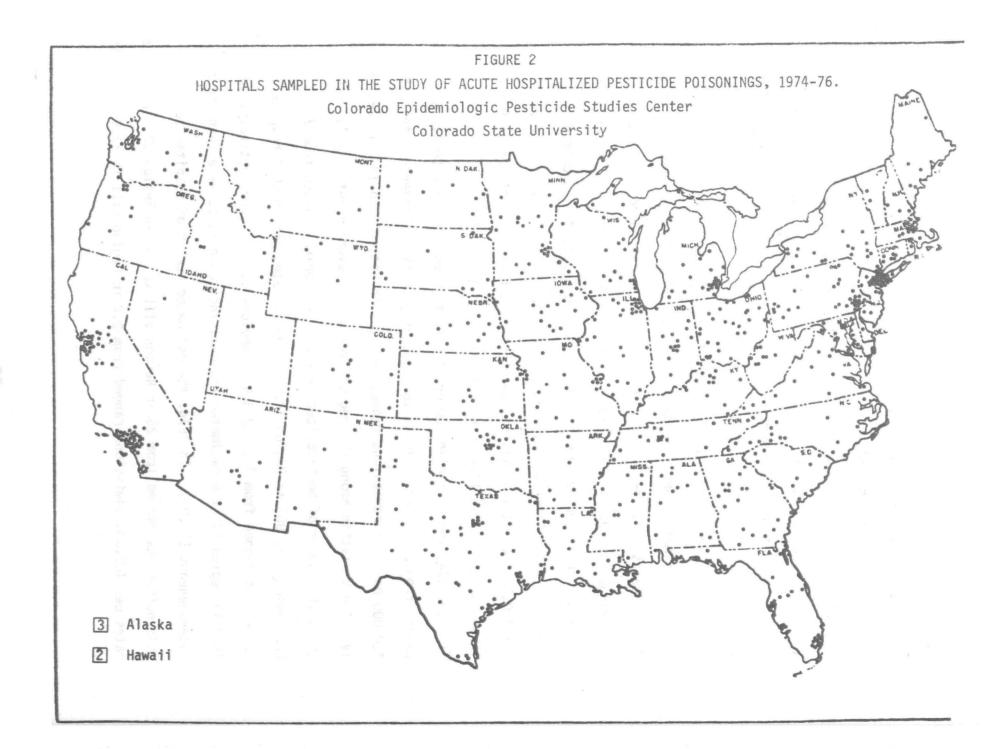
RESULTS

A total of 754 hospitals (approximately 12% of all U.S. general care hospitals) were in this study. The number of general-care hospitals in each state, the number of hospitals sampled per state, and the number of total hospital admissions, are included in Appendix C. The geographic distribution of hospitals participating in this study is depicted in Figure 2.

Hospitalized Pesticide Poisonings and Incidence Rates by Nation and EPA Region

The estimated number of hospital-admitted pesticide poisonings in the United States in 1974-1976 was 9278. The estimated number of pesticide poisonings was 2954 in 1974, 3314 in 1975, and 3010 in 1976. The standard error of the estimated number of hospitalized pesticide poisonings for 1974-1976 was, respectively, 232, 246, and 186 (Appendix S). Incidence rates per 100,000 hospital admissions were not significantly different for the three years: 8.7 in 1974; 9.6 in 1975; and 8.5 in 1976.

In 1974, the estimated number of hospitalized pesticide poisonings ranged from 24 in EPA Region I to 801 in Region IV. Incidence rates per 100,000 hospital admissions ranged from 1.3 in Region I to 13.6 in Region IV. The variation among the regions was highly significant (P<.01). In 1975, the number of hospitalized pesticide poisonings ranged from 71 in EPA Region I to 985 in Region IV. Incidence rates per 100,000 hospitalized admissions ranged from 3.8 and 3.9 in Regions II and I, respectively, to 16.3 in Region IV; the estimated regional incidence rates were found to be heterogeneous (P<.01). In 1976, the estimated number of hospitalized pesticide poisonings ranged from 25 in Region VIII to 755 in Region IV. Incidence rates per 100,000 admissions ranged from 2.2 in Region VIII to 12.9 in Region



VII. As for 1974 and 1975, the estimated incidence rates among the 10 EPA regions were significantly different (P<.01).

Poisonings and Rates by Cause of Exposure - Intentional, Non-occupational,
Occupational

Nationally, the estimated number of intentional pesticide poisonings in general-care hospitals was 535 in 1974, 499 in 1975, and 446 in 1976. The incidence rates did not differ significantly (P>.05) during the three year period.

The national estimates of non-occupational pesticide poisonings increased from 1641 in 1974 to 1806 in 1976. Incidence rates of the non-occupationally exposed groups were similar for 1974 through 1976 (P>.05). In 1975, Region IV, with an estimated number of 453 non-occupationally exposed pesticide poisonings was highest among the regions. The incidence rate of non-occupational pesticide poisonings was highest for Region VII (9.5 cases per 100,000 hospital admissions). In 1976, Region IV, with an estimated number of 599 non-occupationally exposed pesticide poisonings, was highest among the 10 geographic regions in both estimated numbers and incidence rate (9.6 cases per 100,000 hospital admissions).

Nationally, the estimated number of pesticide poisonings admitted to general-care hospitals as a result of occupational exposure was highest in 1975. Incidence rates of pesticide poisonings per 100,000 hospital admissions in the occupationally exposed group were 2.0 in 1974, 2.8 in 1975, and decreased to 1.9 in 1976.

In 1974, Region IV had an estimated 229 occupationally related pesticide poisonings and Region VI had an incidence rate of 3.9 cases per 100,000 hospital admissions. These were the highest rates among the regions.

In 1975, Region IV had the largest estimated number of occupationally related pesticide poisonings of 365 and an incidence rate of 6.0 cases per 100,000 hospital admissions. Region VII had the highest incidence rate of 7.0 per 100,000 hospital admissions.

In 1976, Region VI had an estimated 214 occupationally related pesticide poisonings, the highest among the regions, and also had the highest incidence rate of 5.3 cases per 100,000 hospital admissions.

In 1974, farmers had an estimated 234 admitted pesticide poisonings, the highest number of any occupationally exposed group. Region IV had an estimated 120 admitted pesticide poisonings in this group, the highest of any region. Region VI had the highest incidence rate among farmers, 0.9 cases per 100,000 hospital admissions.

In 1975, farmers experienced an estimated 274 hospital-admitted pesticide poisonings, the highest number of any occupationally exposed group.

Region IV had an estimated 122 admitted pesticide poisonings, the highest among the regions. Region IV also experienced the highest incidence rate among farmers, 2.0 cases per 100,000 hospital admissions.

In 1976, farmers encountered an estimated 189 hospital-admitted pesticide poisonings, once again the highest of any occupationally exposed group. On a regional basis, Region IV had an estimated 80 admitted pesticide poisonings in this group, highest among the regions. Region IV had the highest incidence rate among the hospital-admitted farmers with 1.3 pesticide poisonings per 100,000 hospital admissions.

Poisonings and Rates by Major Pesticide Class

Organophosphates were most often involved in occupationally related hospital-admitted pesticide poisonings in 1974 and 1976.

In 1974, organophosphates were involved in an estimated 341 such poisonings; chlorinated hydrocarbons were estimated to be responsible for only 49 cases. Region IV had an estimated 130 organophosphate poisonings, highest among the regions. Region IX had the highest incidence rate of organophosphate poisonings (2.4 cases per 100,000 hospital admissions).

In 1975, organophosphates were involved in an estimated 291 occupationally related hospital-admitted pesticide poisonings; chlorinated hydrocarbons were estimated to be responsible for only 42 such cases. However, "other" compounds were involved in an estimated 392 occupationally related hospital-admitted pesticide poisonings. Region IV, with an estimated 93 organophosphate poisonings, and Region VII, with an incidence rate of 1.9 cases per 100,000 admissions, were high among all EPA regions.

In 1976, organophosphate pesticides contributed to an estimated 331 occupationally related hospital-admitted pesticide poisonings. Region VI had an estimated 107 organophosphate poisonings, highest of all EPA regions. Region VII had the highest incidence rate of organophosphate pesticide poisonings (2.9 cases per 100,000 hospital admissions). It is of considerable interest that the chlorinated hydrocarbons did not cause any poisonings in the occupational related group.

Poisonings and Rates Among Children 0-4 Years

In 1974, an estimated 1015 children 0-4 years of age were admitted to hospitals as a result of pesticide poisonings. In Region V, an estimated 231 children were admitted to hospitals, more than in any other region. Region IX had an incidence rate of 5.1 cases per 100,000 hospital admissions, highest among all regions.

In 1975, an estimated 1186 children under 5 years of age were admitted to hospitals as a result of pesticide poisonings. In Region IV, an estimated

271 children were admitted to hospitals, more than in any other region.

Region IX had an incidence rate of 7.1 cases per 100,000 admissions, the highest among all regions.

In 1976, an estimated 1181 children 0-4 years of age were hospitalized as a result of pesticide poisonings. Again Region IV, with an estimated 278 children admitted, was highest among all regions. Region IX had an incidence rate of 5.6 cases per 100,000 hospital admissions, higher than any other region.

Poisoning Deaths by Cause of Exposure and Age

A total of 120 of the estimated number of hospitalized pesticide poisonings resulted in death. An estimated 48 hospitalized individuals died in 1974 because of pesticide poisonings. None of these were occupationally related deaths. It was estimated that 24 persons died in hospitals as a result of pesticide poisonings in 1975. There were no occupationally related deaths. An estimated 48 hospital-admitted deaths occurred in 1976 as a result of pesticide poisonings. Approximately 16 of these were occupationally exposed workers.

In 1974-1976, among occupationally exposed workers, 8 deaths were estimated in the 35-44 year age group, and another 8 in the 45-54 year age group. During the same 3-year period, 8 deaths were estimated in the non-occuational hospital admitted pesticide poisonings among children under 5 years of age.

DISCUSSION

One of the primary objectives of the Second National Study of Hospitalized Pesticide Poisonings, 1974-1976, was to serve as a source of continuous data to supplement the first national study of pesticide poisonings completed for 1971-1973. Both the methodology used in the design and the procedures for estimating the frequency of hospitalized pesticide poisonings and rates per 100,000 hospital admissions in the second national study were compatible to those methods used in the first study. In fact, 12 percent of the hospitals in the second study participated in the first national study of hospitalized pesticide poisonings. The compatibility between the two studies allowed for yearly comparisons, as well as comparisons between the two three-year periods.

The first Study of Hospitalized Pesticide Poisonings in the United States, 1971-1973 (1) reported, not only on the estimated numbers and rates of hospitalized pesticide poisonings, but also on the various epidemiologic factors related to hospital admitted pesticide poisonings, such as person, place, time, and agent factors. However, for the sake of comparability with results in EPA's summary (15) of our results for 1971-1973, this report presents only estimated numbers and rates of hospital admitted pesticide poisonings for 1974-1976 in a similar format. For a complete review of the results of the 1971-1973 study that are briefly presented in this discussion, the reader is encouraged to review the report on the first National Study of Hospitalized Pesticide Poisonings (1).

The estimated rate of hospital admitted pesticide poisonings per 100,000 hospital admissions in the United States remained quite stable over the six-year study period, having ranged from 8.2 in 1971 to 9.6 in 1975 (see Table 105). In particular, the difference in the average estimated rate for the two three-year periods was not statistically significant (8.5 and 8.9, respectively).

In spite of the stable national rate, an examination of Table 106 reveals that many of the annual estimated rates for the EPA regions fluctuated both within and among regions during the six years, 1971-1976. The incidence rates for EPA Region I remained low and relatively stable throughout the six years of study. Similarly, Regions V and VI each had nearly constant rates for 1971 through 1976, ranging from 5.6 to 6.9 and 11.0 to 12.8, respectively. For the period 1971-1976, the rates for Regions II, IV and VII increased, while those for Regions III, VIII and IX decreased. On a year-by-year basis, the rates for Regions IV, VI and IX were consistently in excess of the rate for the total U.S. On the other hand, the rates for Regions, I, II and V were consistently lower than the annual U.S. rate. The rates for Regions III, VII, VIII and X showed large fluctuations per year. However, the difference in the average estimated rates for the two three-year periods was statistically significant (p=.05) for only Region III.

The estimated rates of hospitalized pesticide poisonings, as categorized by type of exposure (i.e., occupational, non-occupational, and intentional) were homogeneous within each category throughout the six-year period (see Table 107). In each of the two three-year periods, the average estimated incidence rate of non-occupational poisonings was double that of occupational poisonings. The estimated incidence rates of intentional poisonings remained consistently low with a range of 1.3 to 1.6 per 100,000 hospital admissions. Within the occupational group, farmers continued to experience the highest estimated rate of hospitalized pesticide poisonings (Table 108). The only occupational groups which experienced an increase in the rate of hospitalized pesticide poisonings during the second three-year study were farmers and agricultural workers.

Rates of hospitalized pesticide poisonings in the occupational category were also estimated by major pesticide class. The rate for organophosphate related hospitalized poisonings decreased over the six-year time span. The only other noticeable change was the increase in the poisoning rate caused by compounds in the "other" category (Table 109).

The number of pesticide deaths occurring during the two three-year study periods were 25 in 1971-1973 and 15 in 1974-1976. Of the 25 deaths observed in 1971-1973, 15 were intentional, 6 were non-occupational (including 2 children less than 10 years of age), 3 were occupational and 1 was unknown. Of the 15 observed deaths in 1974-1976, 9 were intentional, 3 were non-occupational (including 1 child less than 10 years of age), 2 were occupational, and 1 was unknown.

SUMMARY

The national estimated rate of hospitalized pesticide poisonings ranged from 8.2 to 9.6 during the six years of the study. The six-year study of hospitalized pesticide poisonings has revealed that approximately one of every two pesticide poisonings occur in the non-occupational exposure group. In this group, children under 10 years of age account for the greatest number of hospitalized cases. Although the estimated rate of intentional pesticide poisonings was lower than that for occupational and non-occupational hospitalized pesticide poisonings, the intentional hospitalized cases account for approximately 58% of all the deaths. The national hospitalized pesticide poisoning rates remained quite stable during the six-year data period, but several of the EPA regional rates fluctuated from year to year. The organo-phosphate compounds accounted for a large number of hospitalized cases in the occupationally exposed group. During the second study, many poisoning cases were caused by unknown compounds.

TABLE 1
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS IN THE UNITED STATES IN 1974, 1975, and 1976.

	ESTIMATED NUMBER	RATES	
1974	2954	8.7	
1975	3314	9.6	
1976	3010	8.5	

TABLE 2
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1974.

EPA REGION	ESTIMATED NUMBER	RATES,	
I	24	1.3	
II	156	4.3	
111	197	5.4	
IV	801	13.6	
v	500	6.9	
AI .	453	11.8	
VII	216	10.2	
VIII	52	4.8	
IX	478	13.0	
XH COL	77	7.2	
TOTAL	2954	8.7	

TABLE 3
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1975.

EPA REGION	ESTIMATED NUMBER	RATES
I	71	3.9
II	140	3.8
III	150	4.1
IV	985	16.3
γ	415	5.6
VI	435	11.1
VII	394	18.0
VIII	75	6.7
IX	556	15.0
X	93	8.6
TOTAL	3314	9.6

TABLE 4
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1976.

EPA REGION	ESTIMATED NUMBER	RATES
I	61	3.4
II	240	6.4
III	146	3.9
IV	755	12.1
v	457	6.1
vi	493	12.2
VII	287	12.9
VIII	25	2.2
IX	452	12.2
X	94	8.5
TOTAL	3010	8.5

TABLE 5
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION I AND STATES IN 1974, 1975, AND 1976.

		74	1975		197	<u>′6</u>
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	EST IMATED NUMBER	RATE
REGION I	24	1.3	71	3.9	61	3.4
MAINE	6	3.3	6 .	3.3	6	3.4
NEW HAMPSHIRE	0	0.0	0	0.0	8	6.0
VERMONT	0	0.0	30	37.9	0	0.0
MASSACHUSETTS	8_	0.9	24	2.8	16	1.9
RHODE ISLAND	0	0.0	11	8.5	12	9.7
CONNECTICUT	10	2.3.	0	0.0	19	4.3

TABLE 6
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION II AND STATES, IN1974, 1975, AND 1976.

		1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION II	156	4.3	140	3.8	240	6.4	
NEW YORK	75	2.9	66	2.5	95	3.5	
NEW JERSEY	81	8.2	74	7.3	145	13.9	

TABLE 7
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION III AND STATES, IN 1974, 1975, AND 1976.

	1.9	74	19	75		76	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	· · · · · · · · · · · · · · · · · · ·
REGION III	197	5.4	150	4.1	146	3.9	
PENNSYLVANIA	74	4.1	64	3.6	55	3.0	
DELAWARE	0	0.0	.0	0.0	15	18.7	
MARYLAND	15	3.1	23	4.7	32	6.2	
DISTRICT OF COLUMBIA	23	12.4	0	0.0	Ö	0.0	
VIRGINIA	- 1	10.7	59	8.0	31	4.1	F *
WEST VIRGINIA	8	2.3	4	1.1	13	3.2	

TABLE 8
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION IV AND STATES, IN 1974, 1975, AND 1976.

	19	974	193	75.	197	76
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	NUMBER NUMBER	RATE
EGION IV	801	13.6	985	16.3	755	12.1
NORTH CAROLINA	115	14.0	169	20.1	156	18.0
SOUTH CAROLINA	45	10.3	91	20.6	65	14.4
GEORGIA	195	23.6	87	10.3	73	8.3
FLORIDA	169	12.4	123	:8:6	192	13.0
KEŃTUCKY	58	10.0	121	19.9	54	8.7
TENNESSEE	138	17.9	206	26.3	64	7:8
ALABAMA	37	:5	116	17.7	72	10.6
MISSISSIPPI	44	10.2	72	16.4	79	17.7

TABLE 9
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION V AND STATES, IN 1974, 1975, AND 1976.

	19	74	19	75	197	76
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	500	6.9	415	5.6	457	6.1
OHIO	92	5.4	94	5.4	47	2.7
INDIANA	24	2.8	47	5.5	23	2.7
ILLINOIS	178	9.3	116	6.0	228	11.6
MICHIGAN	70	5.1	46	3.3	61	4.3
WISCONSIN	41	5.4	40	5.3	64	8.4
MINNESOTA	95	13.8	72	10.2	34	4.8

TABLE 10
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VI AND STATES, IN 1974, 1975, AND 1976.

		74		1975		6	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION VI	453	11.8	435	11.1	493	12.2	
ARKANSAS	66	17.3	139	34.7	101	24.5	
LOUISIANA	81	12.2	26	3.8	24	3.5	
OKLAHOMA	37	7.7	54	11.3	87	18.0	
TEXAS	261	12.1	216	9.9	256	11.3	
NEW MEXICO	8	4.5	0	0.0	25	13.5	

TABLE 11
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VII AND STATES, IN 1974, 1975, AND 1976.

		74		1975		76
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VII	216	10.2	394	18.0	287	12.9
IOWA	52	9.6	96	17.3	89	15.7
MISSOURI	77	8.8	78	8.7	65	7.1
NEBRASKA	32	11.3	81	27.7	25	8.2
KANSAS	55	12.7	139	31.2	108	24.0

TABLE 12
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VIII AND STATES, IN 1974, 1975, AND 1976.

	1	974	1	975	19	76
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	52	4.8	75	6.7	25	2.2
NORTH DAKOTA	0	0.0	30	21.6	10	6.8
SOUTH DAKOTA	0	0.0	7 .	5.4	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	52 .	12.0	38	8.6	15	3.4
UTAH	. 0	0.0	0	0.0	0	0.0

TABLE 13
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION IX AND STATES, IN 1974, 1975, AND 1976.

	1	974	19	1975		76
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	478	13.0	556	15.0	452	12.2
CALIFORNIA	389	12.4	537	17.0	376	11.9
ARIZONA	89	25.9	19	5.7	39	11.1
NEVADA	0.	. 0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	37 ·	36.5

TABLE 14
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION X AND STATES, IN 1974, 1975, AND 1976.

	1	974	1	1975		76
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	EST IMATED NUMBER	RATE
REGION X	77	7.2	93 .	8.6	94	8.5
IDAHO	7	5.9	36	28.4	28	21.7
WASHINGTON	62	11.3	48	8.7	57	10.3
OREGON	8	2.5	9	2.4	9	2.5
ALASKA	0.	0.0	0	6.0	0	0.0

TABLE 15
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE
OF EXPOSURE IN THE UNITED STATES IN 1974, 1975, AND 1976.

	1974			1975		
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
OCCUPATIONAL	686	2.6	985	2.8	685	1.9
NON-OCCUPATIONAL	1641	4.8	1773	5.1	1806	5.1
INTENTIONAL	535	1.6	499	1.4	446	1.3
UNCLASSIFIED	92		57		73	•••
TOTAL	2954	8.7	3314	9.6	3010	8.5

TABLE 16
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGIONS IN 1974.

	<u>OCCÚPA</u>	TIONAL	NON-OCCUPA	TIONAL	INTENTIO	ONAL
EPA REGION	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	6	0.2	10	0.6	8	0.4
II	24	0.7	115	3.2	17	0.5
III	37	1.0	54	1.5	109	3.0
IV	229	3.9	440	7.5	85	1:4
V	39	0.5	372	5.1	87	1.2
/I	141	3.7	228	5.9	48	1.2
/11	58	2.7	139	6.5	17	0.8
VIII	9	0.8	17	1.6	26	2.4
ıx —	113	3.1	235	6.4	130	3.5
(30	2.8	31	2.9	8	0.7
U.S. TOTAL	686	2.0	1641	4.8	535	1.6

TABLE 17
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION I AND STATES IN 1974.

	OCCUPAT	<u> TIONAL</u>	NON-OCCUPAT	IONAL	INTENTIONAL	
REGION AND STATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE
REGION I	6	0.2	10	0.6	8	0.4
MAINE	6 .	3.3	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0
VERMONT	0.	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	. \0	0.0	8	0.9
RHODE ISLAND	0.	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	10	2.3	0	0.0

TABLE 18
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE
OF EXPOSURE, EPA REGION II AND STATES IN 1974.

	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTI	ONAL
REGION AND STATE	ESTIMATED NUMBER			RATE	ESTIMATED Number	
REGION II	24	0.7	115	3.2	17	0.5
NEW YORK	8	0.3	50	1.9	17	0.6
NEW JERSEY	16	1.6	65	6.5	0-	0.0

TABLE 19
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE
OF EXPOSURE, EPA REGION III AND STATES IN 1974.

	OCCUPAT	IONAL	NON-OCCUPAT	IONAL	INTENTIO	ONAL
REGION AND STATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE
REGION III	37	1.0	54	1.5	109	3.0
PENNSYLVANIA	8	0.5	41	2.3	25	1.4
DELAWARE	0	0.0	0	0.0	0	0.0
MARYLAND	8	1.6	0	0.0	8	1.6
DISTRICT OF COLUMBIA	12	6.2	0	0.0	12	6.2
VIRGINIA	9	1.2	9	1.2	60	8.3
WEST VIRGINIA	0	0.0	4	1.1	4	1.1

TABLE 20
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION IV AND STATES IN1974.

	<u>OCCUPA</u>	TIONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
REGION AND STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	229	3.9	440	7.5	85	1.4
NORTH CAROLINA	33	4.0	49	6.0	8	1.0
SOUTH CAROLINA	0	0.0	45	10.3	0	0.0
GEORGIA	54	6.6	101	12.3	39	4.7
FLORIDA	54	3.9	100	7.3	15	1.1
KENTUCKY	0	0.0	58	10.0	0	0.0
TENNESSEE	42	5.4	<u>6</u> 9	8.9	14	1.8
ALABAMA	28	4.4	0	0.0	0	0.0
MISSISSIPPI	18	4.1	18	4.1	9	2.0

TABLE 21
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION V AND STATES IN 1974.

REGION & STATE	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE
GION V	39	0.5	372	5.1	87	1.2
OHIO	15	0.9	61	3.6	15	0.9
INDIANA	0	0.0	24	2.8	0	0.0
ILLINOIS	7	0.4	156	8.1	15	0.8
MICHIGAN	0	0.0	46	3.4	23	1.7
WISCONSIN	8	1.1	24	3.2	8	1.1
MINNESOTA	9	1.3	61	8.8	26	3.8

TABLE 22
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VI AND STATES IN 1974.

	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION VI	141	3.7	228	5.9	48	1.2
ARKANSAS	28	7.4	28	7.4	0	0.0
LOUISIANA	9	1.4	72	10.8	0	0.0
OKLAHOMA	9	1.9	9	1.9	9	1.9
TEXAS	95	4.4	119	5.5	40	1.8
NEW MEXICO	0	0.0	. 0	0.0	8	4.5

TABLE 23
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VII AND STATES IN 1974.

	OCCUPAT	IONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE
REGION VII	58	2.7	139	6.5	17	0.8
IONA	. 7	1.4	44	8.2	0	0.0
MISSOURI	34	3.9	43	4.9	0	0.0
NEBRASKA	8	2.8	16	5.7	8	2.8
KANSAS	9	2.1	36	8.4	9	2.1

TABLE 24
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VIII AND STATES IN 1974.

,	OCCUPATIONAL		NON-OCCUPA	INTENTIONAL		
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
EGION VIII	9	0.8	17.	1.6	26	2.4
NORTH DAKOTA	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	Ø.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0.	0.0	0	0.0	0	0.0
COLORADO	9	2.0	17	4.0	26	6.0
UTAH	0	0.0	0	0.0	0	0.0

TABLE 25
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IX AND STATES IN 1974.

REGION & STATE	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION IX	113	3.1	235	6.4	130	3.5
CALIFORNIA	24	0.8	235	7.5	130	4.1
ARIZONA	89	25.9	0	0.0	0	0.0
NEVADA	0	0.0	0 < -	0.0	0	0.0
HAWAII	.0	0.0	0	0.0	0	0.0

TABLE 26
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION X AND STATES IN 1974.

	OCCUPATI	ONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE
REGION X	30	2.8	31	2.9	8	0.7
IDAHO	7	5.9	0	0.0	0	0.0
WASHINGTON	23	4.2	23	4.2	8	1.4
OREGON	0.	0.0	8	2.5	0	0.0
ALASKA	0 .	0.0	0	0.0	0	0.0

TABLE 27
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGIONS IN 1975.

	OCCUPAT	CONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
EPA REGION	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE
I	8	0.4	35	1.9	29	1.6
II	16	0.4	100	2.7	25	0.7
111	33	3.6	92	2.5	25	0.7
IV	365	6.0	453	7.5	150	2.5
V	66	0.9	269	3.6	71	1.0
VI	181	4.6	193	4.9	51	1.3
VII	154	7.0	207	9.5	24	1.1
VIII	18	1.6	42	3.8	15	1.3
IX	110	3.0	340	9.2	100	2.7
x	34	3.1	45	4.2	14	1.3
I.S. TOTAL	985	2.8	1776	5.1	504	1.5

TABLE 28
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION I AND STATES IN 1975.

	OCCUPAT:	CONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
REGION & STATE	ESTIMATED Number	RATE.	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	8	0.4	35	1.9	29	1.6
MAINE	0	0.0	6	3.3	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	15	18.9	15	18.9
MASSACHUSETTS	8	0.9	8	0.9	8	0.9
RHODE ISLAND	0	0.0	6	4.3	6 -	4.3
CONNECTICUT	0	0.0	.0	0.0	0	0.0

TABLE 29
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION II AND STATES IN 1975.

	OCCUPATIONAL		NON-OCCUPA	NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	
REGION II	16	0.4	100	2.7	25	0.7	
NEW YORK	8	0.3	42	1.6	17	0.6	
NEW JERSEY	8	0.8	58	5.6	8	0.8	

TABLE 30
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION III AND STATES IN 1975.

	OCCUPATI	ONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
REGION & STATE	EST IMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	33	3.6	92	2.5	25	0.7
PENNSYLVANIA	8	0.5	56	3.1	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	15	3.1	8	1.6
DISTRICT OF COLUMBIA	0-	0.0	0	0.0	0	0.0
VIRGINIA	25	3.4	17	2.3	17	2.3
WEST VIRGINIA	0	0.0	· 4	1.1	0	0.0

TABLE 31
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IV AND STATES IN 1975.

•	OCCUPAT1	ONAL	NON-OCCUP/	ATIONAL	INTENTI	ONAL	
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	
REGION IV	365	6.0	453	7.5	150	2.5	
NORTH CAROLINA	40	4.8	97	11.5	24	2.9	
SOUTH CAROLINA	61	13.7	30	6.9	0	0.0	
GEORGIA	24	2.8	47	5.6	8	0.9	
FLORIDA	23	1.6	69	4.8	31	2.2	
KENTUCKY	30	5.0	75	12.4	15	2.5	
TENNESSEE	151	19.3	27	3.5	27	3.5	
ALABAMA	27	4.1	63	9.6	27	4.1	
MISSISSIPPI	9	2.1	45	10.2	18	4.1	

TABLE 32
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION V AND STATES IN 1975.

	OCCUPAT	IONAL	NON-OCCUPA	TIONAL	INTENT	ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	66	0.9	269	3.6	. 71	1.0
OHIO	31	1.8	62	3.6	0	0
INDIANA	8	0.9	31	3.7	8	0.9
ILLINOIS	0	0.0	102	5.2	15	0.7
MICHIGAN	0	0.0	31	2.2	15	1.1
WISCONSIN	0	0.0	16	2.1	24	3.2
MINNESOTA	27	3.8	27	3.8	9	1.3

TABLE 33
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VI AND STATES IN 1975.

REGION & STATE	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE .
REGION VI	181	4.6	193	4.9	51	1.3
ARKANSAS	59	14.9	69	17.3	10	2.5
LOUISIANA	0	0.0	17	2.5	9	1.3
OKLAHOMA	18	3.8	27	5.7	0	0.0
TEXAS	104	4.8	<u>8</u> 0	3.7	32	1.5
NEW MEXICO	0	0.0	0	0.0	0	0.0

TABLE 34
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VII AND STATES IN 1975.

REGION & STATE	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION VII	154	7.0	207	9.5	24	1.1
IOWA	44	8.0	37	6.7	15	2.7
MISSOURI	35	3.9	35	3.9	0	0.0
NEBRASKA	57	19.4	24	8.3	0	0.0
KANSAS	18	4.2	111	25.0	9	2.1

TABLE 35
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VIII AND STATES IN 1975.

REGION & STATE	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION VIII	18	1.6	42	3.8	15	1.3
NORTH DAKOTA	10	7.2	20	14.4	0	0.0
SOUTH DAKOTA	0	0.0	7	5.4	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	8	1.7	15	3.4	15	3.4
UTAH	0	0.0	0	0.0	0	0.0

TABLE 36
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IX AND STATES IN 1975.

	OCCUPATI	ONAL	NON-OCCUPA	TIONAL	INTENT	INTENTIONAL	
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	
REGION IX	1110	3.0	340	9.2	100	2.7	
CALIFORNIA	100	3.2	330	10.5	100	3.2	
ARIZONA	10	2.8	10	2.8	0	0.0	
NEVADA	0	0.0	0	0.0	0	0.0	
HAWAII	0	0.0	0	0.0	0	0.0	

TABLE 37
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION X AND STATES IN 1975.

	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE
REGION X	34	3.1	45	4.2	14	1.3
IDAHO	7	5.7	22	17.0	7	5.7
WASHINGTON	27	5.0	14	2.5	7	1.2
OREGON	0	0.0	9	2.4	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0

TABLE 38
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGIONS IN 1976.

	OCCUPATI	OCCUPATIONAL		NON-OCCUPATIONAL		
EPA REGION	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE
	6	0.3	35	1.9	20	1.1
II	17	0.5	207	5.6	8	0.3
III	27	0.7	82	2.2	20	0.5
IV	169	2.7	599	9.6	88	1.3
٧	7 7	1,1	322	4.3	60	0.8
VI.	214	5.3	221	5.5	50	1.2
VII	87	3.9	139	6.2	51	2.9
AIII	0	0.0	17	1.5	7	0.6
ı X	69	1.9	271	7.3	112	3.0
(23	2.1	41	3.7	30	2.7
LS. TOTAL	6 85	1.9	1934	5. 5	446	1.3

TABLE 39
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION I AND STATES IN 1976.

	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
EGION I	6	0.3	35	1.9	20	1.1
MAINE	6	3.4	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	8	6.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	8	0.9	8	0.9
RHODE ISLAND	0	0.0	0	0.0	12	9.7
CONNECTICUT	0	0.0	19	4.3	0	0.0

TABLE 40
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION II AND STATES IN 1976.

	OCCUPAT I	ONAL	NON-OCCUPA	NON-OCCUPATIONAL		
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION II	17	0.5	207	5.6	17	0.5
NEW YORK	8	0.3	79	3.0	8	0.3
NEW JERSEY	9	0.8	128	12.3	9	0.8

TABLE 41
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION III AND STATES IN 1976.

	OCCUPATI	IONAL	NON-OCCUPA	TIONAL	INTENTIO	DNAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	27	0.7	82	2.2	20	0.5
PENNSYLVANIA	8	0.4	39	2.1	8	0.4
DELAWARE	15	18.7	0	0.0	0	0.0
MARYLAND	0	0.0	24	4.7	8	1.6
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0
VIRGINIA	0	0.0	15	2.0	0	0.0
WEST VIRGINIA	4	1.1	4	1.1	4	1.1

TABLE 42
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IV AND STATES IN 1976.

	OCCUPATI	ONAL	NON-OCCUP/	ATIONAL	INTENTI	ONAL
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
EGION IV	169	2.7	599	9.6	88	1.3
NORTH CAROLINA	49	5.7	82	9.5	8	1.0
SOUTH CAROLINA	22	4.8	36	8.0	. 7	1.6
GEORGIA	16	1.9	40	4.6	.16	1.9
FLORIDA	16	1.1	160	10.8	16	1.1
KENTUCKY	15	2,5	39	6.2	0	0.0
TENNESSEE	7	0.9	36	4.3	14	1.7
ALABAMA	18	2.7	45	6.6	9	1.3
MISSISSIPPI	26	5.9	35	7.9	18	3.9

TABLE 43
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION V AND STATES IN 1976.

REGION & STATE	OCCUPATIONAL		NON-OCCUPA	INTENTIONAL		
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
EGION V	77	1.1	322	4.3	60	0.8
OHIO	16	0.9	31	1.8	0	0.0
INDIANA	0	0.0	23	2.7	0	0.0
ILLINOIS	28	1.4	166	8.4	35	1.8
MICHIGAN	8	0.5	45	3.2	8	0.5
WISCONSIN	16	2.1	40	5.3	8	1.1
MINNESOTA	9	1.2	17	2.4	9	1.2

TABLE 44

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY

CAUSE OF EXPOSURE, EPA REGION VI AND STATES IN 1976.

	OCCUPAT:	IONAL	NON-OCCUPA	INTENTI	ONAL	
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE
REGION VI	214	5.3	221	5.5	50	1.2
ARKANSAS	45	10.9	56	13.6	0	0.0
LOUISIANA	8	1.2	16	2.3	0	0.0
OKLAHOMA	17	3.6	35	7.2	26	5.4
TEXAS	136	6.0	96	4.2	24	1.1
NEW MEXICO	8	4.5	. 17	9.0	0	0.0

TABLE 45
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION VII AND STATES IN 1976.

	OCCUPAT 1	IONAL	NON-OCCUPA	NON-OCCUPATIONAL		
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION VII	87	3.9	139	6.2	51	2.9
IOWA	44	7.9	30	5.2	15	2.6
MISSOURI	0	0.0	46	5.1	9	1.0
NEBRASKA	25	8.2	0	0.0	0	0.0
KANSAS	18	4.0	63	14.0	27	6.0

TABLE 46
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION VIII AND STATES IN 1976.

REGION & STATE	OCCUPATIONAL		NON-OCCUPA	INTENTIONAL		
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
GION VIII	0	0.0	17	1.5	7	0.6
NORTH DAKOTA	0	0.0	10	6.8	0	0.0
SOUTH DAKOTA	0 .	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	. 7	1.7	7	1.7
UTAH	0	0.0	0	0.0	0	0.0

TABLE 47
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IX AND STATES IN 1976.

	OCCUPATIONAL		NON-OCCUPA	INTENTIONAL		
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	69	1.9	271	7.3	112	3.0
CALIFORNIA	31	1.0	251	7.9	94	3.0
ARIZONA	20	5.5	20	5.5	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	18	18.3	0	0.0	18	18.3

TABLE 48
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION X AND STATES IN 1976.

REGION & STATE	OCCUPAT	IONAL	NON-OCCUPA	INTENTI	ONAL	
	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION X	23	2.1	41	3.7	30	2.7
IDAHO	7	5.4	7	5.4	14	10.8
WASHINGTON	16	3.0	25	4.4	16	3.0
OREGON	0	0.0	9	2.5	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0

TABLE 49 ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND MATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE

REGIONS	FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		APPLICATOR		PANIC	MORKER		
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
ī	0	0.0	0	0.0	6	0.2	0	0.0
11	8	0.2	0	0.0	8	0.2	0	0.0
111	0	0.0	0	0.0	20	0.5	17	0.5
IA	0	0.0	24	0.4	120	2.0	24	0.4
V	0	0.0	0	0.0	23	0.3	7	0.1
VI.	28	0.7	32	0.8	33	0.9	16	0.4
VII	17	0.8	9	0.4	16	0.7	8	0.4
AIII	0	0.0	0	0.0	0	0.0	9	0.8
IX	10	0.3	95	2.6	0	0.0	0	0.0
x	0	0.0	15	1.4	8	0.8	0	0.0
U.S. TOTAL	63	0.2	175	0.5	234	0.7	18	0.2

COMMERCIAL

FARMER

AGRICULTURAL

TABLE 49 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR LAB	UNSKILLED DRER	PROFESSIO OR SEI PROFESSIO	HI-	UNKNOWN OR NOT CLASSIFIED		TOTA	L
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	6	0.2
II	8	0.2	0	0.0	0	0.0	24	0.6
III	0	0.0	0	0.0	0	0.0	37	1.0
IV	53	0.9	8	0.1	0	0.0	229	3.8
V	9	0.1	0	0.0	0	0.0	39	0.5
VI	9	0.2	16	0.7	8	0.2	142	3.9
VII	9 .	0.4	0	0.0	0	0.0	59	2.7
VIII	0	0.0	0	0.0	0	0.0	9	8.0
IX	8	0.2	0	0.0	0	0.0	113	3.1
x	8	8.0	0	0.0	0	0.0	31	3.0
U.S. TOTAL	104	0.3	24	0.1	8	0.0	689	2.0

TABLE 50
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE

FORMULATING PLANT

OR PESTICIDE

		FACTURING PLANT								
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE		
REGION I	0	0.0	0	0.0	6	0.2	0	0.0		
MAINE	0	0.0	0	0.0	6	3.3	0	0.0		
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0		
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0		
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0		
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0		
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0		

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

WORKER

TABLE 50 (CONTINUED) ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	6	0.2
MAINE	0	0.0	U	0.0	0	0.0	6	3.3
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	. 0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	-0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 51
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE

FORMULATING PLANT

	MANUFACT PLAN							
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	8	0.2	0	0.0	8	0.2	0	0.0
NEW YORK	0	0.0	. 0	0.0	8	0.3	0	0.0
NEW JERSEY	8	0.8	0	0.0	0	0.0	0	0.0

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

WORKER

TABLE 51 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

		SKILLED OR UNSKILLED LABORER		DNAL MI – DNAL	UNKNOWN OR NOT CLASSIFIED		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	8	0.2	0	U.O	0	0.0	24	0.6
NEW YORK	0.	0.0	0	0.0	0	0.0	8	0.3
NEW JERSEY	8	0.8	0	0.0	0	0.0	16	1.6

TABLE 52
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	IG PLANT CCIDE TURING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	20	0.5	17	0.5
PENNSYLVANIA	Ō	0.0	0	0.0	8	0.5	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	0	0.0	·0	0.0	8	1.6
DISTRICT OF COLUMBIA	0	0.0	0	0.0	12	6.2	0	0.0
VIRGINIA	0 .	0.0	0	0.0	0	0.0	9	1.2
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 52 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

		UNSKILLED ORER	or sei	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION III	0	0.0	0	0.0	0	0.0	37	1.0	
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	8	0.5	
DELAWARE	0	0.0	0	0.0	0	0.0	0	0.0	
MARYLAND	0	0.0	0	0.0	0	0.0	8	1.6	
DISTRICT OF COLUMB	IA O	0.0	0	0.0	0	0.0	12	6.2	
VIRGINIA	0	0.0	0	0.0	0	0.0	9	1.2	
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	Ó	0.0	

TABLE 53
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IV	0	0.0	24	0.4	120	2.0	24	0.4
NORTH CAROLINA	0	0.0	8	1.0	16	2.0	8	1.0
SOUTH CAROLINA	0	0.0	0	0.0	0	0.0	0	0.0
GEORGIA	0	0.0	16	1.9	23	2.8	16	1.9
FLORIDA	0	00	0	0.0	0	0.0	0	0.0
KENTUCKY	0	0.0	. 0	0.0	0	0.0	0	0.0
TENNESSEE	0	0.0	0	0.0	35	4.5	0	0.0
ALABAMA	0	0.0	0	0.0	28	4.4	0	0.0
MISSISSIPPI	0	0.0	0	0.0	18	4.1	0	0.0

TABLE 53 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR LABO	UNSKILLED DRER	PROFESSIO OR SEP PROFESSIO	4I-	UNKNOWN NOT CLASS		TOTAL	•
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IV	53	0.9	8	0.1	0	0.0	229	3.8
NORTH CAROLINA	0	0.0	0	0.0	0	0.0	32	4.0
SOUTH CAROLINA	0	0.0	0	0.0	0	0.0	0	0.0
GEORGIA	0	0.0	0	0.0	0	0.0	55	6 .6
FLORIDA	46	3.4	8	0.6	0	0.0	54	4.0
KENTUCKY	0	0.0	0	0.0	0	0.0	0	0.0
TENNESSEE	7	0.9	0	0.0	0	0.0	42	5.4
ALABAMA	0	0.0	0	0.0	0	0.0	28	4.4
MISSISSIPPI	0	0.0	0	0.0	0	0.0	18	4.1

TABLE 54

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	IG PLANT CIDE URING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	. 0	0.0	0	0.0	23	0.3	7	0.1
OHIO	0	0.0	0	0.0	15	0.9	0	0.0
INDIANA	0	0.0	0	0.0	0	0.0	0	0.0
ILLINOIS	0.	0.0	0	0.0	0	0.0	7	0.4
MICHIGAN	0	0.0	0	0.0	0	0.0	0	0.0
WISCONSIN	0	0.0	0	0.0	8	1.1	0	0.0
MINNESOTA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 54 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

		SKILLED OR UNSKILLED LABORER		ONAL MI- ONAL	UNKNOWN OR T NOT CLASSIFIED		TOTA	L .
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	9	0.1	0	0.0	· O	0.0	39	0.5
OHIO	0	0.0	0	0.0	0	0.0	15	0.9
INDIANA	0	0.0	0	0.0	0	0.0	0	0.0
ILLINOIS	0	0.0	0	0.0	0	0.0	7	0.4
MICHIGAN	. 0	0.0	0	0.0	0	0.0	0.	0.0
MISCONSIN	0	0.0	0	0.0	0	0.0	8	1:1
MINNESOTA	9	1.3	0	0.0	0	0.0	9	1.3

TABLE 55
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT ESTIMATED PATE		COMMERC APPLICA				AGRICULTU Worker	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	28	0.7	32	0.8	33	0.9	16	0.4
ARKANSAS	28	7.4	0	0.0	0	0.0	0	0.0
LOUISIANA	0	0.0	0	0.0	9	1.4	0	0.0
OKLAHOMA	0	0.0	0	0.0	0	0.0	0	0.0
TEXAS	0	0.0	32	1.5	24	1.1	. 16	0.7
NEW MEXICO	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 55 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	9.	0.2	16	0.7	8	0.2	142	3.9
ARKANSAS	0	0.0	0	0.0	0	0.0	28	7.4
LOUISIANA	0	0.0	0	0.0	0	0.0	9	1.4
OKLAHOMA	9.	1.9	0	0.0	0	0.0	9	1.9
TEXAS	0	0.0	16	0.7	8	0.4	96	4.4
NEW MEXICO	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 56
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL FARMER APPLICATOR		!	AGRICULTURAL WORKER		
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	17	0.8	9	0.4	16	0.7	8	0.4
IOHA	0	0.0	0	0.0	7	1.4	0	0.0
MISSOURI	17	2.0	9	1.0	9	1.0	0	0.0
NEBRASKA	. 0	0.0	0	0.0	0	0.0	8	2.8
KANSAS	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 56 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSION OR SEI	MI-	UNKNOWN OR NOT CLASSIFIED		TOTA	L ·
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	9	0.4	0	0.0	0	.0.0	59	2.7
IOWA	0	0.0	0	0.0	. 0	0.0	7	1.4
MISSOURI	0	0.0	0	0.0	0	0.0	35	4.0
NEBRASKA	0	0.0	0	0.0	0	0.0	8	2.8-
KANSAS	9	2.1	0	0.0	0	0.0	9	2.1

TABLE 57
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

FORMULATING PLANT OR PESTICIDE

	MANUFACT PLAN	URING						
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	9	0.8
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	.0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	. 0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	9	2.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

COMMERCIAL

APPLICATOR

AGRICULTURAL

WORKER

FARMER

TABLE 57 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIO OR SEP PROFESSIO	4I <i>-</i>	UNKNOWN NOT CLASS		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	9	0.8
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0.	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	9	2.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 58
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS, AND RATES PER 100,000 HOSPITAL.
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	IG PLANT CIDE URING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	10	0.3	95	2.6	0	0.0	0	0.0
CALIFORNIA	0	0.0	16	0.5	0	0.0	0	0.0
ARIZONA	10	2.9	79	23.0	0	0.0	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 58 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIONAL UNKNOWN OR OR SEMI- NOT CLASSIFIED PROFESSIONAL		TOTA	L		
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	8	0.2	0	0.0	0	0.0	113	3.1
CALIFORNIA	8	0.3	0	0.0	0	0.0	24 [.]	0.8
ARIZONA	0	0.0	0	0.0	0	0.0	89	25.9
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	. 0	0.0

TABLE 59
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	IG PLANT CIDE URING		COMMERCIAL FARMER APPLICATOR		AGRICULTURAL WORKER		
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	0	0.0	15	1.4	8	0.8	0	0.0
IDAHO	0	0.0	7	5.9	0	0.0	0	0.0
WASHINGTON	0	0.0	8	1.4	8	1.4	0	0.0
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 59 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIO OR SEI PROFESSIO	4I-	UNKNOWN OR NOT CLASSIFIED		TOTA	TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION X	8	0.8	0	0.0	0	0.0	31	3.0	
IDAHO	0	0.0	0	0.0	0	0.0	7	18.2	
WASHINGTON	8	1.4	0	0.0	0	0.0	24	4.2	
OREGON	0	0.0	. 0	0.0	0	0.0	0	0.0	
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0	

TABLE 60
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS IN THE UNITED STATES IN 1975.

FORMULATING PLANT

	OR PESTI MANUFACT PLAN	CIDE URING						
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	8	0.4
II	0	0.0	0	0.0	8	0.2	0	0.0
III	16	1.7	O	0.0	8	0.9	8	0.9
IV	15	0.2	32	0.5	122	2.0	62	1.0
Y	.0	0.0	9	0.1	48	0.7	9	0.1
VI ·	46	1.2	34	0.9	35	0.9	16	0.4
VII	58	2.7	18	0.8	38	1.7	15	0.7
VIII	0	0.0	0	0.0	0	0.0	10	0.9
IX	38	1.0	15	0.4	8	0.2	23	0.6
X	0	0.0	14	1.2	7	0.6	0	0.0
U.S. TOTAL	173	0.5	122	0.4	274	8.0	151	0.4

COMMERCIAL

APPLICATOR

AGRICULTURAL WORKER

FARMER

TABLE 60 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS IN THE UNITED STATES IN 1975.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	MI-	UNKNOWN NOT CLASS:		TOTA	L
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	8	0.4
II	0	0.0	8	0.2	0	0.0	16	0.4
III	0	0.0	0	0.0	0	0.0	3 2	3.5
IV	46	0.8	0	0.0	90	1.5	367	6.0
٧	0	0.0	0	0.0	0	0.0	66	0.9
VI	25 ⁻	0.6	0	0.0	26	0.7	182	4.7
VII	7'	0.3	8.	0.4	9	0.4	153	7.0
VIII	8 ·	0.7	0	0.0	0.	0.0	18	1.6
IX	8	0.2	0	0.0	18	0.5	110	2.9
X	14	1.2	0	0.0	0	0.0	35	3.1
U.S. TOTAL	108	0.3	16	0.0	143	0.4	987	2.8

TABLE 61
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

OD DESTICINE

	MANUFACT PLAN	TURING						
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	8	0.4
MAINE	0	0.0	0	0.0	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	.0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	8	0.9
RHODE ISLAND	0	0.0	. 0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0
								,

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

TABLE 61 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	8	0.4
MAINE	0	0.0	0	0.0	0	0.0	0	0.0
NEW HAMPSHIRE	0,	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	. 0	0.0	· 0	0.0	0	0.0

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	IG PLANT CIDE URING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	0	0.0	0	0.0	8	0.2	0	0.0
NEW YORK	0	0.0	0	0.0	. 8	0.3	0	0.0
NEW JERSEY	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 62 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	0	0.0	8	0.2	0	0.0	16	0.4
NEW YORK	0	0.0	0	0.0	0	0.0	8	0.3
NEW JERSEY	0	0.0	8	0.8	0	0.0	8	0.8

TABLE 63
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

FORMULATING PLANT

OR PESTICIDE MANUFACTURING

	PLAN						_	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION'III	16	1.7	0	0.0	8	0.9	8	0.9
PENNSYLVANIA	8	0.5	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	0	0.0	0	0.0	0	0.0
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0	0	0.0
VIRGINIA	8	1.1	0	0.0	8	1.1	. 8	1.1
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL WORKER

TABLE 63 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

.	SKILLED OR L a bo	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	٠ 0	0.0	0	0.0	0	0.0	32	3.5
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	0	0.0	0	0.0	0	0.0
DISTRICT OF COLUMBI	(A 0	0.0	0	0.0	0	0.0	0	0.0
VIRGINIA	0	0.0	0	0.0	0	0.0	24	3.3
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 64 ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	FORMULATIN OR PESTI MANUFACT	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION IV	15	0.2	32	0.5	122	2.0	62	1.0	
NORTH CAROLINA	0	0.0	0	0.0	24	2.9	16	1.9	
SOUTH CAROLINA	8	1.7	8	1.7	15	3.4	15	3.4	
GEORGIA	0	0.0	0	0.0	8	0.9	8	0.9	
FLORIDA	0	0.0	8	0.5	0	0.0	0	0.0	
KENTUCKY	0	0.0	0	0.0	23	3.7	0	0.0	
TENNESSEE	7	0.9	7	0.9	34	4.4	14	1.8	
ALABAMA	0	0.0	0	0.0	18	2.7	9	1.4	
MISSISSIPPI	0	0.0	9	2.1	0	0.0	0	0.0	

TABLE 64 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT-CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IV	46	0.8	0	0.0	90	1.5	367	6.0
NORTH CAROLINA	0	0.0	0	0.0	0	0.0	40	4.8
SOUTH CAROLINA	8	1.7	0	0.0	8	1.7	62	13.6
GEORGIA	8	0.9	0	0.0	0	0.0	24	2.7
FLORIDA	15	1.1	0	0.0	0	0.0	23	1.6
KENTUCKY	8	1.2	0	0.0	0	0.0	31	4.9
TENNESSEE	7	0.9	0.	0.0	82	10.4	151	19.3
ALAB ama	0	0.0	0	0.0	0	0.0	27	4.1
MISSISSIPPI	.0	0.0	0	0.0	0	0.0	9	2.1

TABLE 65
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

المستوند ويستوني والمستوني	PESTICIDE FORMULATING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OR PESTICIDE MANUFACTURING PLANT			

	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	0	0.0	9	0.1	48	0.7	9	0.1
OHIO	0	0.0	0	0.0	31	1.8	0	0.0
INDIANA	0	0.0	0	0.0	8	0.9	0	0.0
ILLINOIS	0	0.0	0	0.0	. 0	0.0	0	0.0
MICHIGAN	0	0.0	0	0.0	0	0.0	0	0.0
WISCONSIN	0	0.0	0	0.0	0	0.0	0	0.0
MINNESOTA	0	0.0	9	1.3	9	1.3	9	1.3

TABLE 65 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	0	0.0	0	0.0	0	0.0	66	0.9
OHIO	0	0.0	0	0.0	0	0.0	31	1.8
INDIANA	0	0.0	0	0.0	0	0.0	8	0.9
ILLINOIS	0	0.0	0	0.0	0	0.0	0	0.0
MICHIGAN	0	0.0	0	0.0	0	0.0	0	0.0
WISCONSIN	0	0.0	0	0.0	0	0.0	0	0.0
MINNESOTA	0	0.0	0	0.0	0	0.0	27	3.9

TABLE 66
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

CODMINATING DI ANT

	MANUFACT	OR PESTICIDE MANUFACTURING PLANT		NUK			WURKEK	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	46	1.2	34	0.9	35	0.9	16	0.4
ARKANSAS	30	7.4	10	2.5	10	2.5	0	0.0
LOUISIANA	0	0.0	0	0.0	0	0.0	0	0.0
OKLAHOMA	0	0.0	0	0.0	9	1.9	10	2.0
TEXAS	16	0.7	24	1.1	16	0.7	16	0.7
NEW MEXICO	0	0.0	0	0.0	0	0.0	0	0.0

COMMERCIAL

ADDI TOATOD

FARMER

AGRICULTURAL

MODKED

TABLE 66 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	25	0.6	0	0.0	26	0.7	182	4.7
ARKANSAS	0	0.0	0	0.0	10	2.5	60	14.9
LOUISIANA	0	0.0	0	0.0	0	0.0	0	0.0
OKLAHOMA	9	1.9	0	0.0	0	0.0	18	3.8
TEXAS	16	0.7	0	0.0	16	0.7	104	4.8
NEW MEXICO	0	0.0	0	0.0	0	0.0	0	0.0

AMOI

MISSOURI

NEBRASKA

KANSAS

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17

41

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TABLE 67
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT ESTIMATED RATE		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL Worker	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	58	2.7	18	0.8	38	1.7	15	0.7

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TABLE 67 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIO OR SEP PROFESSIO	4I-	UNKNOWN NOT CLASS:		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	EȘTIMATED	RATE
REGION VII	7	0.3	8	0.4	9	0.4	153	7.0
IOWA .	7	1.3	0	0.0	0	0.0	43	7.9
MISSOURI	0	0.0	0	0.0	0	0.0	35	3.9
NEBRASKA	0	0.0	8	2.8	0	0.0	57	19.4
KANSAS	0	0.0	0	0.0	9	2.1	18	4.2

TABLE 68
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	10	0.9
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	10	7.2
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	0	0.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 68 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIO OR SEI PROFESSIO	4I <i>-</i>	UNKNOWN OR NOT CLASSIFIED		TOTAL	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	8	0.7	0	0.0	0	0.0	18'	1.6
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	10	7.2
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	. 0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	8	1.7	0	0.0	0	0.0	8	1.7
UTAH	0	0.0	0	0.0	0	0.0	0	2.9

TABLE 69
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

FORMULATING PLANT

OR PESTICIDE MANUFACTURING

	PLANT								
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION IX	38	1.0	15	0.4	8	0.2	23	0.6	
CALIFORNIA	38	1.2	15	0.5	8	0.2	23	0.7	
ARIZONA	. 0	0.0	0	0.0	0	0.0	0	0.0	
NEYADA	0	0.0	0	0.0	0	0.0	0	0.0	
HAMAII	0	0.0	0	0.0	0	0.0	0	0.0	

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

TABLE 69 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIO OR SEP PROFESSIO	SEMI- NOT CLASSIFIED		TOTAL	L	
	ESTIMATED	RATE	ESTIMATED	RATE ·	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	8	0.2	0	0.0	18	0.5	110	2.9
CALIFORNIA	8	0.2	0	0.0	8	0.2	100	3.0
ARIZONA	0	0.0	0	0.0	10	2.8	10	2.8
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 70
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	0	0.0	14	1.2	7	0.6	0	0.0
IDAHO	0	0.0	0	0.0	0	0.0	0	0.0
WASHINGTON	0	0.0	14	2.5	7	1.2	0	0.0
OREGON	0	0.0	0	0.0	. 0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 70 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIO OR SEI PROFESSIO	4I-	UNKNOWN OR NOT CLASSIFIED		TOTAL	•
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	14	1.2	0	0.0	0	0.0	35	3.1
IDAHO	7	5.7	0	0.0	0	0.0	7	5.7
WASHINGTON	7	1.2	0	0.0	0	0.0	28	4.9
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 71
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

PESTICIDE FORMULATING PLANT

OR PESTICIDE

	MANUFACT PLAN							
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
ī	0	0.0	0	0.0	6	0.3	0	0.0
II	9	0.3	0	0.0	8	0.2	0	0.0
III	4	0.1	0	0.0	0	0.0	15	0.4
IV	9	0.1	23	0.4	80	1.3	15	0.2
٧	16	0.2	0	0.0	24	0.3	16	0.2
VI	22	0.5	75	1.9	40	1.0	60	1.9
VII	25	1.1	24	1.1	15	0.7	15	0.7
VIII	0	0.0	0	0.0	0	0.0	0	0.0
IX	23	0.6	36	1.0	0	0.0	10	0.3
X	0	0.0	0	0.0	16	1.5	7	0.6
TOTAL	108	0.3	158	0.4	189	0.6	158	0.4

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

TABLE 71 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	MI-		UNKNOWN OR NOT CLASSIFIED		L
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	6	0.3
II	0	0.0	0	0.0	0	0.0	17	0.5
III	0	0.0	0	0.0	8	0.2	27	0.7
IV	35	0.6	0	0.0	8	0.1	170	2.7
V	21	0.3	0	0.0	0	0.0	77	1.1
VI	8	0.2	9	0.2	0	0.0	214	5.3
VII	0	0.0	0	0.0	7	0.3	86	3.9
VIII	0	0.0	0	0.0	0	0.0	0	0.0
IX	0	0.0	0	0.0	0	0.0	69	1.9
X	0	0.0	0	0.0	0	0.0	23	2.1
TOTAL	64	0.2	9	0.0	23	0.1	689	2.0

TABLE 72
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

FORMULATING PLANT

	OR PESTI MANUFACT PLAN	CIDE URING							
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION I	0	0.0	0	0.0	6	0.3	0	0.0	
MAINE	0	0.0	0	0.0	6	3.4	0	0.0	
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0	
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0	
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0	
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0	
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0	

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

TABLE 72 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSION PROFESSION	MI-	UNKNOWN OR NOT CLASSIFIED		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	6	0.3
MAINE	0	0.0	0	0.0	0	0.0	6	3.4
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 73
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	9°	0.3	0	0.0	.8.	0.2	0	0.0
NEW YORK	0	0.0	0	0.0	8	0.3	0	0.0
NEW JERSEY	9	0.8	0	0.0	0	0.0	0	0.0

TABLE 73 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

		SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION II	0	0.0	0	0.0	0	0.0	17	0.5	
NEW YORK	0	0.0	0	0.0	0	0.0	8	0.3	
NEW JERSEY	0	0.0	0	0.0	0	0.0	9	0.8	

TABLE 74

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	APPLICA	APPLICATOR		•	WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	4.	0.1	0	0.0	0	0.0	15	0.4
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	15	18.7
MARYLAND	0	0.0	0	0.0	0	0.0	0	0.0
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0	0	0.0
VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0
WEST VIRGINIA	4	1.1	0	0.0	0	0.0	0	0.0

FARMER

AGRICULTURAL

TABLE 74 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

:		UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	8	0.2	27	0.7
PENNSYLVANIA	0	0.0	0	0.0	8	0.4	8	0.4
DELAWARE	0	0.0	0	0.0	0	0.0	15	18.7
MARYLAND	0	0.0	0	0.0	0	0.0	0	0.0
DISTRICT OF COLUMBI	(A 0	0.0	0	0.0	0	0.0	0	0.0
VIRGINIĄ	0	0.0	0	0.0	0	0.0	0	0.0
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	4	1.1

TABLE 75
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
ř	ORMULATING PLANT OR PESTICIDE MANUFACTURING	ORMULATING PLANT APPLICATOR OR PESTICIDE MANUFACTURING	ORMULATING PLANT APPLICATOR OR PESTICIDE MANUFACTURING

	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IV	9	0.1	23	0.4	80	1.3	15	0.2
NORTH CAROLINA	0	0.0	0	0.0	41	4.7	8	1.0
SOUTH CAROLINA	0	0.0	7	1.6	7	1.6	7	1.6
GEORGIA	0	0.0	0	0.0	16	1.9	0	0.0
FLORIDA	0	0.0	0	0.0	8	0.5	0	0.0
KENTUCKY	0	0.0	0	0.0	8	1.2	0	0.0
TENNESSEE	0	0.0	7	0.9	0	0.0	0	0.0
ALABAMA	9	1.3	0	0.0	0	0.0	0	0.0
MISSISSIPPI	0	0.0	9	2.0	0	0.0	0	0.0

TABLE 75 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL			UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION IV	35	0.6	0	0.0	8	0.1	170	2.7	
NORTH CAROLINA	0	0.0	0	0.0	0	0.0	49	5.7	
SOUTH CAROLINA	0	0.0	0	0.0	0	0.0	21	4.8	
GEORGIA	0	0.0	0	0.0	0	0.0	16	1.9	
FLORIDA	8	0.5	0	0.0	0	0.0	16	1.0	
KENTUCKY	0	0.0	0	0.0	8	1.2	16	2.4	
TENNESSEE	0	0.0	0	0.0	0	0.0	7	0.9	
ALABAMA	9	1.3	0	0.0	0	0.0	18	2.6	
MISSISSIPPI	18	4.0	0	0.0	0	0.0	27	6.0	

TABLE 76 ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ACMISSIONS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	16	0.2	0	0.0	24	0.3	16	0.2
OHIO	16	0.9	0	0.0	0	0.0	0	0.0
INDIANA	0	0.0	0	0.0	0	0.0	0	0.0
ILLINOIS	0	0.0	0	0.0	7	0.4	0	0.0
MICHIGAN	0	0.0	0	0.0	0	0.0	8	0.5
WISCONSIN	0	0.0	0	0.0	8	1.1	8	1.1
MINNESOTA	0	0.0	0	0.0	9	1.2	0	0.0

TABLE 76 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

		SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION V	21	0.3	0	0.0	0	0.0	77	1.1	
OHIO	0	0.0	0	0.0	0	0.0	16	0.9	
INDIANA	0	0.0	0	0.0	0	0.0	0	0.0	
ILLINOIS	21	1.1	0	0.0	0	0.0	28	1.5	
MICHIGAN	. 0	0.0	0	0.0	0	0.0	8	0.5	
MISCONSIN	0	0.0	0	0.0	0	0.0	16	2.2	
MINNESOTA	0	0.0	0	0.0	0	0.0	9	1.2	

TABLE 77
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

·	OR PESTI MANUFACT	FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		JRAL R
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	22	0.5	7 5	1.9	40	1.0	60	1.5
ARKANSAS	22	5.4	11	2.7	0	0.0	11	2.7
LOUISIANA	0	0.0	0	0.0	0	0.0	8	1.2
OKLAHOMA	0	0.0	0	0.0	0	0.0	9	1.8
TEXAS	0	0.0	56	2.5	40	1.8	32	1.4
NEW MEXICO	0	0.0	8	4.5	0	0.0	0	0.0

TABLE 77 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	8	0.2	9	0.2	0	0.0	214	5.3
ARKANSAS	0	0.0	0	0.0	0	0.0	44	10.9
LOUISIANA	0	0.0	0	0.0	0	0.0	8	1.2
OKLAHOMA	0	0.0	9	1.8	0	0.0	18	3.6
TEXAS	8	0.4	0	0.0	0	0.0	136	6.1
NEW MEXICO	0	0.0	0	0.0	0	0.0	8	4.5

TABLE 78
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	FORMULATIN OR PESTI MANUFACT	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION VII	25	1.1	24	1.1	15	0.7	15	0.7	
IOWA	0	0.0	15	2.6	7	1.3	15	2.6	
MISSOURI	0	0.0	0	0.0	0	0.0	0	0.0	
NEBRASKA	16	5.4	0	0.0	8	2.7	0	0.0	
KANSAS	9	2.0	9	2.0	0	0.0	0	0.0	

TABLE 78 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

		SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
-	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION VII	9	0.0	0	0.0	7	0.3	86	3.9	
IOMA	0	0.0	0	0.0	7	1.3	44	7.9	
MISSOURI	0	0.0	0	0.0	0	0.0	0	0.0	
NEBRASKA	0	0.0	0	0.0	0	0.0	24	8.1	
KANSAS	0	0.0	0	0.0	0	0.0	18	4.0	

TABLE 79
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER		AGRICULTU WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	0	0.0
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	٥	0.0	. 0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	0	0.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 79 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSION OR SEI	MI –	UNKNOWN NOT CLASS		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	0	0.0
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	0	0.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 80
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

FORMULATING PLANT

OR PESTICIDE

	MANUFACT PLAN	URING						
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	23	0.6	36	1.0	0	0.0	10	0.3
CALIFORNIA	23	0.7	8	0.3	0	0.0	0	0.0
ARIZONA	0	0.0	10	2.8	0	0.0	10	2.8
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	18	18.3	0	0.0	0	0.0

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

WORKER

TABLE 80 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	MI-	UNKNOWN NOT CLASS		ТОТА	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	0	0.0	0	0.0	0	0.0	69	1.9
CALIFORNIA	0	0.0	0	0.0	0	0.0	31	1.0
ARIZONA	0	0.0	0	0.0	0	0.0	20	5.5
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	18	18.3

TABLE 81
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

FORMULATING PLANT

	OR PESTI MANUFACT PLAN	URING						
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	0	0.0	0	0.0	16	1.5	7	0.6
IDAHO	0	0.0	0	0.0	0	0.0	7	5.4
WASHINGTON	0	0.0	0	0.0	16	3.0	0	0.0
OREGON	0	0.0	0 .	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	O	0.0	0	0.0

COMMERCIAL

APPLICATOR

FARMER

AGRICULTURAL

WORKER

TABLE 81 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSION OR SEI	MI-	UNKNOWN NOT CLASS		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	0	0.0	0	0.0	0	0.0	23	2.1
IDAHO	0	0.0	0	0.0	0	0.0	7	5.4
WASHINGTON	0	0.0	. 0	0.0	0.	0.0	16	3.0
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 82
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY MAJOR PESTICIDE CLASS IN THE UNITED STATES IN 1974, 1975, AND 1976.

	1974		1976		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	NUMBER NUMBER	RATE
RGANOPHOSPHATSES	341	1.0	291	0.8	331	0.9
HLORINATED HYDROCARBO	N 49	0.1	42	0.1	0	0.0
HLORINATED HYDROCARBO HERBICIDES, FUNGICIDE ETC.		0.0	17	0.1	0	0.0
ARBAMATES, AMIDES & RELATED COMPOUNDS	81	0.2	235	0.7	121	0.3
SENIC	0	0.0	8	0.0	8	0.0
HER	209	0.6	392	1.1	229	0.6
TAL	688	2.0	985	2.8	689	2.0

TABLE 83
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS
1974.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	6	0	0	0	0	0	6
II	0	0	0	16	0	8	24
III	27	0	0	9 .	0	0	36
IV	130	23	8	14	0	53	228
Y	8	0	0	8	0	24	40
VI	57	17	0	27	0	41	142
AII	9	9	0	0	0	42	60
VIII	9	0	0	0	0	0	9
IX	87	0	0	0	0	26	113
X	8	0	0	7	0	15	30
U.S. TOTAL	341	49	8	81	0	209	688

TABLE 84

RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA

REGIONS, 1974.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.3	0.0	0.0	0.0	0.0	0.0	0.3
II	0.0	0.0	0.0	0.4	0.0	0.2	0.6
III	0.7	0.0	0.0	0.3	0.0	0.0	1.0
IA	2.2	0.4	0.1	, 0.2	0.0	0.9	3.8
Y	0.1	0.0	0.0	0.1	0.0	0.3	0.5
VI .	1.5	0.4	0.0	0.7	0.0	1.1	3.7
VII	0.4	0.4	0.0	0.0	0.0	2.0	2.8
VIII	0.8	0.0	0.0	0.0	0.0	0.0	0.8
IX	2.4	0.0	0.0	0.0	0.0	0.7	3.1
X	0.7	0.0	0.0	0.7	0.0	1.4	2.8
J.S. TOTA	L 1.0	0.1	0.0	0.3	0.0	0.6	2.0

TABLE 85
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS
1975.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL	
I	8	0	0	0	0	0	8	
11	0	0	0	0	8	8	16	
III	8	0	0	8	0	16	32	
IV	93	9	0	100	0	163	365	
V	17	0	9	17	0	23	66	
IV	76	17	8	28	0	53	182	
VII	41	16	0	39	0	59	155	
VIII	8	0	0	0	0	10	18	
IX	40	0	0	23	0	46	109	
X	0	0	0	20	0	14	34	
U.S. TOTAL	L 291	42	17	235	8	392	925	

TABLE 86

RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA
REGIONS, 1975.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.4	0.0	0.0	0.0	0.0	0.0	0.4
11	0.0	0.0	0.0	0.0	0.2	0.2	0.4
III	0.2	0.0	0.0	0.2	0.0	0.4	0.8
IV	1.5	0.2	0.0	1.7	0.0	2.7	6.1
Y	0.2	0.0	0.1	0.2	0.0	0.3	0.8
VI	1.9	0.4	0.2	0.7	0.0	1.4	4.6
VII	1.9	0.7	0.0	1.8	0.0	2.7	7.1
VIII	0.7	0.0	0.0	0.0	0.0	0.9	1.6
IX	1.1	0.0	0.0	0.6	0.0	1.2	2.9
X	0.0	0.0	0.0	1.9	0.0	1.3	3.2
U.S. TOTA	L 0.8	0.1	0.1	0.7	0.0	1.1	2.8

TABLE 87
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS, 1976.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0	0	0	0	0	6	6
II	8	0	- 0	0	0	9	17
III	0	0	0	15	0	12	27
EV	58	0	0	38	8	6 6	170
1	44	0	. 0	9	0	23	76
/I	107	0	0	30	0	77	214
/II	65	0	0	22	0	0	87
/III	0	0	0	0	0	0	0
IX	41	0	0	0	0	28	69
(8	0	0	7	0	8	23
U.S. TOTAL	L 331	0	0	121	8	229	689

TABLE 88

RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA

REGIONS, 1976.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
1	0.0	0.0	0.0	0.0	0.0	0.3	0.3
II	0.2	0.0	0.0	0.0	0.0	0.2	0.4
III	0.0	0.0	0.0	0.4	0.0	0.3	0.7
IV	0.9	0.0	0.0	0.6	0.1	1.1	2.7
Y	0.6	0.0	0.0	0.1	0.0	0.3	1.0
VI	2.7	0.0	0.0	0.7	0.0	1.9	5.3
IIV	2.9	0.0	0.0	1.0	0.0	0.0	3.9
AIII	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX	1.1	0.0	0.0	0.0	0.0	8.0	1.9
X	0.7	0.0	0.0	0.6	0.0	0.7	2.0
U.S. TOT/	L 0.9	0.0	0.0	0.3	0.0	0.7	1.9

TABLE 89
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE IN THE UNITED STATES IN 1974, 1975, AND 1976.

YEAR	ESTIMATED NUMBER	RATE
1974	1015	3.0
1975	1186	3.4
1976	1181	3.4

TABLE 90
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, EPA REGIONS IN 1974, 1975, AND 1976.

	197	4	1975	;	1976	5
EPA REGION	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	0	0.0	23	1.3	9	0.5
II	107	3.0	83	2.3	190	5.1
III	53	1.5	68	1.8	67	1.8
IV	217	3.7	271	4.5	278	4.5
٧	231	3.2	206	2.8	225	3.0
VI	103	2.7	151	3.8	97	2.4
VII	101	4.8	71	3.2	84	3.8
VIII	0	0.0	20	1.8	0	0.0
IX	187	5.1	263	7.1	208	5.6
x	16	1.5	30	2.8	23	2.1
U.S. TOTAL	1015	3.0	1186	3.4	1181	3.4

TABLE 91
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION I AND STATES IN 1974, 1975, AND 1976.

	1974		1975		1976	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE
REGION I	0	0.0	23	1.3	9	0.5
MAINE	0	0.0	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	15	18.9	0	0.0
MASSACHUSETTS	0	0.0	.8	0.9	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	9	2.2

TABLE 92
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION II AND STATES IN 1974, 1975, AND 1976.

	197	4	1975		1976		
REGION & STATE	ESTIMATED NUMBER	RĄTE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	
REGION II	107	3.0	83	2.3	190	5.1	
NEW YORK	50	2.0	25	0.9	71	2.7	
NEW JERSEY	57	5.7	58	5.6	119	11.4	

TABLE 93
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION III AND STATES IN 1974, 1975, AND 1976.

	1974	, 	1975		1976	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	53	1.5	68	1.8	67	1.8
PENNSYLVANIA	33	1.8	40	2.2	39	2.1
DELAWARE	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	15	3.1	16	3.1
DISTRICT OF COLUMBIA	12	6.2	0	0.0	0	0.0
VIRGINIA	8	1.2	8	1.3	8	1.0
WEST VIRGINIA	0	0.0	4	1.1	4	1.1

TABLE 94
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION IV AND STATES IN 1974, 1975, AND 1976.

	1974		1975	5	1970	5
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	217	3.7	271	4.5	278	4.5.
NORTH CAROLINA	24	3.0	64	7.7	41	4.7.
SOUTH CAROLINA	30	6.8	23	5.2	29	6.4
GEORGIA	8	0.9	16	1.9	16	1.8
FLORIDA	54	3.9 /	54	3.8	96	6.5
KENTUCKY	44	7.5	37	6.2	39	6.2
TENNESSEE	48	6.2	14	1.8	21	2.6
ALABAMA	0	0.0	27	4.1	27	4.0
MISSISSIPPI	9	2.0	36	8.2	9	2.0

TABLE 95

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION V AND STATES IN 1974, 1975, AND 1976.

	197	4	1975		1976	;
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE
REGION V	231	3.2	206	2.8	225	3.0
OHIO	46	2.7	39	2.2	16	0.9
INDIANA	24	2.8	31	.3.7	23	2.7
ILLINOIS	89	4.6	87	4.5	138	7.0
MICHIGAN	39	2.8	31	2.2	23	1.6
WISCONSIN	16	2.2	0	0.0	8	1.1
MINNESOTA	17	2.5	18	2.6	17	2.4

TABLE 96
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION VI AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974	L	ESTIMATED	<u> </u>	1976	
	ESTIMATED Number	RATE	NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	103	2.7	151	3.8	97	2.4
ARKANSAS	9	2.5	60	14.9	56	13.6
LOUISIANA	54	8.1	17	2.5	8	1.2
OKLAHOMA	0	0.0	18	3.8	9	1.8
TEXAS	40	1.8	56	2.6	16	0.7
NEW MEXICO	0	0.0	0	0.0	8	4.5

TABLE 97
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION VII AND STATES IN 1974, 1975, AND 1976.

	197	4	197	<u>'5</u>	1976		
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED Number	RATE	ESTIMATED Number	RATE	
REGION VII	101	4.8	71	3.2	84	3.8	
IOWA	22	4.1	8	1.3	30	5.2	
MISSOURI	43	4.9	17	1.9	18	2.0	
NEBRASKA	0	0.0	0	0.0	0	0.0	
KANSAS	36	8.4	46	10.4	36	8.0	

TABLE 98
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION VIII AND STATES IN 1974, 1975, AND 1976.

	197	4	1975	j	1976		
REGION & STATE	ESTIMATED Number	RATE	E <u>stimat</u> ed Number	RATE	ESTIMATED NUMBER	RATE	
REGION VIII	0	0.0	20	1.8	0	0.0	
NORTH DAKOTA	0	0.0	20	14.4	0	0.0	
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	
HONTANA	0	0.0	·O	0.0	0	0.0	
WYOMING	0	0.0	0	0.0	0	0.0	
COLORADO	0	0.0	0	0.0	0	0.0	
UTAH	0	0.0	0	0.0	0	0.0	

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TABLE 99
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION IX AND STATES IN 1974, 1975, AND 1976.

	197	<u> </u>	1975	5	1976	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	187	5.1	263	7.1	208	5.6
CALIFORNIA	187	5.9	253	8.0	188	5.9
ARIZONA	0	0.0	10	2.8	20	5.5
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0

TABLE 100
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION X AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED Number	RATE	ESTIMATED Number	RATE	ESTIMATÊD NUMBER	RATE
REGION X	16	1.5	30	2.8	23	2.1
IDAHO	0	0.0	15	11.4	7	5.4
WASHINGTON	8	1.4	7	1.2	16	3.0
OREGON	8	2.4	8	2.4	0	0.0
ALASKA	a	0.0	0	0.0	0	0.0

TABLE 101

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP AND CAUSE OF EXPOSURE IN THE UNITED STATES FOR 1974, 1975, AND 1976.*

	OCCUP	ATIONAL	NON-OCCI	UPATIONAL	INTENTIONAL		
AGE	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	
0-4	0	0	1	8	0	0	
5-9	0	0	0	0	0	0	
10-14	0	0	0	0	0	Q _.	
15-19	0	0	0	0	0	0	
20–24	0	0	0	0	0	0	
25-34	0	0	1	8	1	8	
35-44	1	8	0	0	.1	8	
45-54	1	8	0	0	2	16	
55-64	0	0	0	0	0	0	
6 5 +	0	0	1	8	5	40	
JNKNOWN	0	0	0	0	0	0	
TOTAL	2	16	3	24	9	72	

^{*} THE ESTIMATES WERE DEVELOPED FROM A RATIO OF THE TOTAL U.S. HOSPITAL ADMISSIONS TO TOTAL SAMPLE HOSPITAL ADMISSIONS, RATHER THAN FROM REGIONAL HOSPITAL ADMISSIONS, TO SAMPLE HOSPITAL ADMISSIONS WITHIN THE INDIVIDUAL REGIONS. THUS, THE TOTAL ESTIMATED NUMBER IN TABLE 101 WILL VARY SLIGHTLY FROM THE SUM OF THE REGIONAL TOTALS IN TABLES 102-104.

TABLE 101 (CONTINUED)

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP AND CAUSE OF EXPOSURE IN THE UNITED STATES FOR 1974, 1975, AND 1976.

	UNKI	NOWN	TO	TAL
AGE	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
0-4	0	0	1	8
5-9	0	0	0	0
10-14	. 0	0	0	0
15–19	0	0	0	0
20-24	0	0	0	0
25-34	0	0	2	16
35-44	0	0	2	16
45-54	1	8	4	32
55-64	0	0	0	0
65+	0	0	6	48
UNKNOWN	_0	_0		_0_
TOTAL	1	8	15	120

^{*}THE ESTIMATES WERE DEVELOPED FROM A RATIO OF THE TOTAL U.S. HOSPITAL ADMISSIONS TO TOTAL SAMPLE HOSPITAL ADMISSIONS, RATHER THAN FROM REGIONAL HOSPITAL ADMISSIONS, TO SAMPLE HOSPITAL ADMISSIONS WITHIN THE INDIVIDUAL REGIONS. THUS, THE TOTAL ESTIMATED NUMBER IN TABLE 101 WILL VARY SLIGHTLY FROM THE SUM OF THE REGIONAL TOTALS IN TABLES 102-104

TABLE 102

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA

REGION IN THE UNITED STATES FOR 1974.*

	occui	PATIONAL	NON-OCC	UPATIONAL	INTEN	TIONAL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0	0	0
II	0	0	0	0	0	0
III	0	0	1	8	3	24
IV	0	0	0	0	0	0
V	0	0	0	0	0	0
VI	0	0	0	0	0	0
VII	0	ŋ	0	0	0	0
VIII	0	0	0	0	0	0
ıx .	0	0	0	0	1	8
(0	0	0	0	0	0
J.S. TOTAL	0	0	1	8	4	32

^{*}THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 102 (CONTINUED)

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA

REGION IN THE UNITED STATES FOR 1974.*

	UNKNO)WN	<u>T0</u> 1	ΓAL_
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0
II .	0.	0	0	0
III	0	0	4	32
IV	1	8	1	8
γ	0	0	0	0
VI	0	0	0	0
VII	0	0	0	0
VIII .	0	0	0	0
IX	0	0	1	8
x	0	0	0	0
U.S. TOTAL	1	8	6	48

^{*}THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 103

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA
REGION IN THE UNITED STATES FOR 1975.*

	<u>occu</u>	PATIONAL	NON-OCC	JPATIONAL	INTEN	TIONAL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	Ō	0	0	0
II	0	0	1	8	0	0
III	0	.0	0	0	0	0
IV	0	0	0	0	0	0
V	0	0 .	0	0	0	0
VI .	0	0	0	0	0	0
VII .	0	0	0	0 ·	0	0
AIII	0	0	0	0	0	0
t x	0	0	0	0	2	16
(0	0	0	0	0	0
J.S. TOTAL	0	0	1	8	2	16

^{*}THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

REGION IN THE UNITED STATES FOR 1975.

TABLE 103 (CONTINUED)

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA

	UNKNO	<u>NWC</u>	<u>T01</u>	ΓAL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
	0	0	0	0
II	0	0	1	8
II	0	0	0	0
V	0	0	0	0
	0	0	0	0
	0	0	0	0
I	0	0	0	0
II	0	0	0	0
	0	0	2	16
	0	0	0	0
. TOTAL	0	0	3	24

^{*}THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 104

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA
REGION IN THE UNITED STATES FOR 1976.

	occui	PATIONAL	NON-OCC	JPATIONAL	<u>INTEN</u>	FIONAL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0	1	8
II	0	0	0	0	0	0
ш	1	8	0	0	0	0
IV	1	8	1	8	1	8
V	0	0	Ò	0	0	0
/I	0	0	0	0	0	0
'II	0	0	0	0	0	0
/111	0	0	0	0	0	0
x	0	0	0	0	1	8
(0	0	0	.0	0	0
J.S. TOTAL	Ź	16	1.	8	3	24

^{*}THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 104 (CONTINUED)

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA
REGION IN THE UNITED STATES FOR 1976.

	UNKNO	OWN .	<u>T01</u>	<u>AL</u>
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	1	8
II	0	0	0	0
III	0	0	1	8
IV	0	0	3	24
V	0	0	0	0
VI	0	0	0	0
/II	0	0	0	0
/III	0	0	0	0
IX	0	0	а	8
(0	0	0	0
.S. TOTAL	0	0	6	48

^{*}THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 105

ESTIMATED NUMBERS AND RATES OF HOSPITAL ADMITTED PESTICIDE POISONINGS

FOR 1971-1976 WITH AVERAGES FOR 1971-1973 AND 1974-1976.

	ESTIMATED NUMBER	RATES
1971	2596	8.2
1972	2821	8.8
1973	2831	8.5
1974	2954	8.7
1975	3314	9.6
1976	3010	8.5
1971-1973	2749	8.5
1974-1976	3093	8.9

TABLE 106
ESTIMATED RATES OF HOSPITAL ADMITTED PESTICIDE POISONINGS
BY EPA REGION FOR 1971-1976.

							AVE	RAGES
EPA REGION	1971	1972	1973	1974	1975	1976	1971-73	1974-76
I	2.4	2.4	4.4	1.3	3.9	3.4	3.1	2.9
II	1.6	2.4	2.2	4.3	3.8	6.4	2.1	4.8
III	6.9	10.2	6.1	5.4	4.1	3.9	7.7	4.5
IV	10.9	11.4	9.4	13.6	16.3	12.1	10.6	14.0
٧	5.6	6.4	6.3	6.9	5.6	6.1	6.1	6.2
VI	12.8	11.0	12.2	11.8	11.1	12.2	12.0	11.7
VII	6.5	7.5	9.8	10.2	18.0	12.9	7.9	13.7
VIII	5.9	10.0	10.7	4.8	6.7	2.2	8.9	4.6
IX	17.1	15.3	15.5	13.0	15.0	12.2	16.0	13.4
X	7.4	8.8	13.5	7.2	8.6	8.5	9.9	8.1
J.S. TOTAL	8.2	8.8	8.5	8.7	9.6	8.5	8.5	8.9

TABLE 107

ESTIMATED RATE OF HOSPITALIZED PESTICIDE POISONINGS

BY TYPE OF EXPOSURE, 1971-1976.

TYPE OF							AVE	RAGES
TYPE OF EXPOSURE	1971	1972	1973	1974	1975	1976	1971-73	1974-76
OCCUPATI ON AL	2.5	1.9	2.5	2.0	2,8	1.9	2.3	2,2
NON- OCCUPATIONAL	4.1	5.4	4.3	4.8	5.1	5.1	4.6	5.0
INTENTIONAL	1.6	1.3	1.6	1.6	1.4	1.3	1.5	1.4

TABLE 108

U.S. TOTAL ESTIMATED RATE OF OCCUPATIONAL POISONINGS

BY OCCUPATION, 1971-1976.

							AVER	AGES
	1971	1972	972 1973	1974	1975	1976	1971-73	1974-76
PESTICIDE FORMULATING PLANT OR PESTICIDE	0.0	0.4						
MANUFACTURING PLANT	0.3	0.4	0.4	0.2	0.5	0.3	0.4	0.3
COMMERCIAL APPLICATOR	0.5	0.4	0.6	0.5	0.4	0.4	0.5	0.4
FARMER	0.4	0.5	0.7	0.7	0.8	0.6	0.5	0.7
AGRICULTURAL WORKER	0.3	0.3	0.2	0.2	0.4	0.4	0.3	0.3
SKILLER OR UNSKILLED LABORER	0.6	0.0	0.3	0.3	0.3	0.2	0.3	0.3
PROFESSIONAL OR SEMI-PROFESSIONAL	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
UNKNOWN OR NOT CLASSIFIED	0.2	0.2	0.3	0.0	0.4	0.1	0.2	0.2

TABLE 109
ESTIMATED YEARLY RATE OF OCCUPATIONAL POISONINGS
BY MAJOR PESTICIDE CLASS, 1971-1976.

					•		AVER	AGES
	1971	1972	1973	1974	1975	1976	1971-73	1974-76
ORGANOPHOSPHATES	1.8	1.4	1.7	1.0	0.8	0.9	1.6	0.9
CHLORINATED HYDRO- CARBON INSECTICIDES	0.1	0.2	0.3	0.1	0.1	0.0	0.2	0.1
CHLORINATED HYDRO- CARBON HERBICIDES, FUNGICIDES, ETC.	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0
CARBAMATES, AMIDES & RELATED COMPOUNDS	0.2	0.1	0.3	0.2	0.7	0.3	0.2	0.4
ARSENI C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER	0.1	0.1	0.2	0.6	1.1	0.6	0.1	0.8

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APPENDICES

TABLE A-1
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976.

YEARS	CASES
1974	367
1975	415
1976	372
TOTAL	1154

TABLE A-2
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY REGION, 1974, 1975, AND 1976.

	_	CASES	
REGION	1974	1975	1976
I	3	8	8
II	19	17	29
Ш	24	19	19
IA	104	127	94
v	64	53	62
VI.	54	50	57
VII	26	47	34
VIII	6	9	3
IX	57	72	54
x	10	·13	12
TOTAL	367	415	372

TABLE B-1

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976.

EPA REGION I AND STATES.

	-	CASES		
REGION I	1974	1975	1976	
MAINE	1	1	1	
NEW HAMPSHIRE	0	.0	1	
VERMONT	0	2	0	
WASSACHUSETTS	1	3	2	
RHODE ISLAND	0	2	2	
CONNECTICUT	1	0	2	

TABLE B-2

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976.

EPA REGION II AND STATES.

		CASES	
REGION II	1974	1975	1976
NEW YORK	9	8	12
NEW JERSEY	10	9	17

TABLE B-3

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,

EPA REGION III AND STATES.

		CASES	
REGION III	1974	1975	1976
PENNSYLVANIA	9	8	17
DELAMARE	0	0	1
MARYLAND	2	3	4
DISTRICT OF COLUMBIA	2	0	0
VIRGINIA	9	7	4
WEST VIRGINIA	2	1	3

TABLE B-4

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,

EPA REGION IV AND STATES.

		CASES	
REGION IV	1974	1975	1976
NORTH CAROLINA	14	21	19
SOUTH CAROLINA	6	12	9
GEORGIA	25	11	9
FLORIDA	22	16	24
KENTUCKY	8	16	7
TENNESSEE	20	30	:9
ALABAMA	4	13	8
MISSISSIPPI	5	8	9

TABLE B-5

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976, EPA REGION V AND STATES.

	_	CASES	_	
REGION V	1974	1975	1976	
OHIO	12	12	6	
INDIANA	3	6	3	
ILLINOIS	24	16	33	
MICHIGAN	9	6	8	
VISCONSIN	5	5	8	
MINNESOTA	11	8	4	

TABLE B-6

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN1974, 1975, AND 1976,

EPA REGION VI AND STATES.

		CASES		
REGION VI	1974	1975	1976	
ARKANSAS	7	14	9	
LOUISIANA	9	3	3	
OKLAHOMA	4	6	10	
TEXAS	33	27	32	
HEW MEXICO	1	0	3	

TABLE B-7
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION VII AND STATES.

		CASES		
REGION VII	1974	1975	1976	
IOWA	7	13	12	
MISSOURI	9	9	7	
NEBRASKA	4	10	3	
KANSAS	6	15	12	

TABLE B-8

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976, EPA REGION VIII AND STATES.

	.	CASES	دسورت
REGION VIII	1974	1975	1976
NORTH DAKOTA	0	3	1
SOUTH DAKOTA	0	1	0
MONTANA	0	0	0
WYOMING	0	0	0
COLORADO	6	5	2
UTAH	0	0	0

TABLE B-9

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976, EPA REGION IX AND STATES.

	-	CASES	
REGION IX	1974	1975	1976
CALIFORNIA	48	70	48
ARIZONA	9	2	4
NEVADA	0	0	0
HAMAII	0	0	2

TABLE B-10

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976, EPA REGION X AND STATES.

		CASES						
REGION X	1974	1975	1976					
IDAHO	1	5	4					
WASHINGTON	8'	7	7					
OREGON	1	1	1					
ALASKA	0	0	0					

TABLE C-1
NUMBER OF HOSPITALS AND HOSPITAL ADMISSIONS, EPA REGIONS, 1974, 1975, AND 1976.

	Number of	Hospitals		Total Admissions							
	All	Sampled Hospitals		All Hospitals			Sampled Hospitals				
Region	Hospitals		1974	1975	1976	1974	1975	1976			
I	272	33	1807083	1821301	1814468	227481	228829	226942			
II	423	52	3623104	3678892	3722370	43618 8	443926	461243			
111	488	63	36266 18	3676657	3791174	475692	489657	513855			
IV	1060	133	5872152	6045880	6237860	751837	772461	783511			
٧	1099	138	7267158	7397603	7478776	937017	954745	98413			
VI	916	112	3850312	3924915	4038683	460849	466914	48404			
IIV	536	67	2124784	2185892	2228884	257569	262847	26167			
VIII	333	40	1079473	1114416	1122667	139150	151324	15287			
IX	664	83	3681901	3695522	3718126	435023	458972	45354			
X	_259	33	1067696	1082870	1101321	135777	142677	12977			
U.S.	6050	754	34000281	34623948	35254329	4256583	4372352	4451590			

TABLE C-2
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION I AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions						
	All	Sampled		Hospitals	5	Sampled Hospitals			
	Hospitals	Hospitals	1974	1975	1976	1974	1975	1976	
Region I	272	33	1807083	1821 301	1814468	227481	228829	226942	
Maine	51	6	177312	177105	1 79485	306 88	30002	29861	
New Hampshire	28	3	127810	125797	1 30050	16202	16284	16624	
Vermont	18	2	76374	78945	78004	5254	5280	5 390	
Massachusetts	119	15	874739	880131	868993	108904	109218	108132	
Rhode Island	15	2	126463	130693	126846	22297	23476	20592	
Connecticut	41	5	424 385	428630	431090	441 36	44569	46 34 3	

TABLE C-3
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION II AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals		Total Admissions						
	A11	Sampled Hospitals	All Hospitals			Sampled Hospitals				
	Hospitals		1974	1975	1976	1974	1975	1976		
Region II	423	52	3623104	3678892	3722370	436188	443926	461243		
New York	317	39	2626511	2655660	2679582	313446	319722	338826		
New Jersey	106	13	996593	1023232	1042788	122742	124204	122417		

TABLE C-4
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION III AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions						
	All Sampled			All Hospitals			Sampled Hospitals		
	Hospitals	<u> Hospitals</u>	1974	1975	1976	1974	1975	1976	
Region III	488	63	3626618	3676657	3791174	475692	489657	513855	
Pennsylvania	236	30	1790646	1800102	1873922	217650	224361	237584	
Deleware	9	.1	73367	77571	78444	5557	5490	5363	
Maryland	55	7	484523	493036	507855	64261	63697	64230	
Washington D.	.C. 14	2	188509	186972	184653	16163	15338	14382	
West Virginia	a 72	10	371301	385625	396225	87886	93197	94435	
Virginia	102	13	718272	733351	750075	84175	87574	97861	

TABLE C-5

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION IV AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals			Total Adn	nissions			
	All	Sampled		All Hospitals			Sampled Hospitals		
	Hospitals	Hospitals	1974	1975	1976	1974	1975	1976	
Region IV	1060	133	5872152	6045880	6237860	751837	772461	783511	
Kentucky	109	14	584846	607776	622873	80096	80541	80691	
N. Carolina	137	17	822027	841804	866313	99969	104478	105500	
Tennessee	129	16	774670	783995	819826	111953	114134	115180	
S. Carolina	77	10	437951	442436	454076	58478	58228	62632	
Georgia	157	20	824152	842185	872797	105867	106841	108287	
Alabama	134	16	637356	654448	678938	69003	73269	75598	
Mississippi	108	13	428983	438598	446301	48986	48812	50794	
Florida	209	27	1362167	1434638	1476736	177485	186158	184829	

TABLE C-6

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION V AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions							
	All	Sampled		All Hospitals			Sampled Hospitals			
	. Hospitals	Hospitals	1974	1975	1976	1974	1975	1976		
Region V	1099	138	7267158	7397603	7478776	937017	954745	984135		
Michigan	214	27	1359530	1391601	1405121	176047	181234	185314		
Wisconsin	144	18	752922	757700	758296	92575	94312	95036		
Minnesota	172	21	692084	702280	717954	79927	78224	83755		
Ohio	206	26	1704278	1740694	1773605	223184	223179	225272		
Indiana	116	15	838571	848671	854283	106462	108878	109905		
Illinois	247	31	1919773	1956657	1969517	258822	268918	284853		

TABLE C-7
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION VI AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions						
	All	Sampled Hospitals	All Hospitals			Sampled Hospitals			
	Hospitals		1974	1975	1976	1974	1975	1976	
Region VI	916	112	3850312	3924915	4038683	460849	466914	484044	
Arkansas	93	11	383180	400213	413309	40391	40365	36794	
0k1ahoma	130	16	472883	479458	483920	51821	53064	55506	
New Mexico	47	6	172105	176665	185217	22469	20821	22258	
Louisiana	140	16	667984	689276	695516	73885	79804	86574	
Texas	506	63	2154160	2179303	2260721	272283	272860	282912	

TABLE C-8

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION VII AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions						
	All	Sampled Hospitals	All Hospitals			Sampled Hospitals			
	Hospitals		1974	1975	1976	1974	1975	1976	
Region VII	536	67	2124784	2185892	2228884	257569	262847	261671	
Iowa	136	17	538615	553070	565445	72800	75090	76419	
Nebraska	101	12	286120	29310 8	301890	35402	36123	36786	
Missouri	149	19	869072	896354	909115	101991	103624	98410	
Kansas	150	19	430977	443360	452434	47376	48010	50056	

TABLE C-9
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION VIII AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions						
	A11	Sampled Hospitals	All Hospitals			Sampled Hospitals			
	<u>Hospitals</u>		1974	1975	1976		1975	1976	
Region VIII	333	40	1079473	1114416	1122667	139150	151324	152874	
North Dakota	57	7	132987	138756	143780	11439	13919	14679	
Montana	. 63	8	139310	143342	141103	16173	16334	14072	
South Dakota	66	8	134361	139651	142361	17808	18701	19610	
Wyoming	28	3	64598	65949	65600	13828	13324	13462	
Colorado	84	10	429620	443689	446384	50006	58422	59699	
Utah	35	4	178597	183029	183439	29896	30624	31 352	

TABLE C-10

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION IX AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions									
	All	Sampled	A	ll Hospital:	 S	Samp	led Hospit	als				
	Hospitals	Hospitals	1974	1975	1976	1974	1975	1976				
Region IX	664	83	3681901	3695522	3718126	435023	458972	453544				
Arizona	72	9	345087	342962	355048	34795	35324	36070				
Nevada	21	3	93406	95571	99024	7306	7479	7971				
California	551	69	3145812	3154826	3163297	387576	410973	404024				
Hawaii	20	2	97596	102163	100757	5346	5196	5479				

TABLE C-11

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION X AND STATES, 1974, 1975, AND 1976.

	Number of	Hospitals	Total Admissions									
	All	Sampled		ll Hospital:	S	Samp	led Hospit	als				
	Hospitals	Hospitals	1974	1975	1976	1974	1975	1976				
Region X	259	33	1067696	1082870	1101321	135777	142677	129771				
Alaska	24	3	52152	52887	53965	7267	3376	3503				
Idaho	48	6	124979	128177	131277	16884	17604	18459				
Washington	111	14	545159	551017	553610	70794	80737	67779				
Oregon	76	10	345406	350789	362469	40832	40960	40030				

TABLE D-1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE AND REGION, 1974, 1975,
AND 1976.

							7117		16.1	UNCLASSICIED
	<u>0C</u>	CUPATIO	<u>NAL</u>	NON-C	OCCUPATI	ONAL	<u> 1</u> N	TENTION	IAL	UNCLASSIFIED
REGION	1974	1975	1976	1974	1975	1976	1974	1975	1976	
I	1	1	1	1	4	4	1	3	3	0
II	3	2	. 2	14	12	25	2	3	2	0
III	4	4	3	7	12	11 13 3 3		2		
IV	29	49	21	58	57	59	11	19	11	11
V	5	8	10	48	35	44	11	9	8	1
VI	17	21	25	27	22	25	7	6	6	5
IIV	7	19	11	17	24	16	2	3	6	2
IIIV	1	2	0	2	5	2	3	2	1	0
IX	12	14	7	29	44	34	16	13	13	1
X	4	5	3	4	6	5	1	2	4_	1
TOTAL	83	.125	83	207	221	225	67	63	5 7	23

TABLE E-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION I AND STATES,

1974, 1975, AND 1976.

	<u>0C</u>	CUPATI	ONAL	NON-0	CCUPAT	IONAL	INI	TENTION	<u>AL</u>	UNCL	ASSIFI	ED
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975.	1976
REGION I	1	1	1	1	4	4	1	3	3	0	0	0
MAINE	1	0	1	0	1	0	0	0	0	0	0	0
NEW HAMPSHIRE	0	0	0	0	0	1	0	0	0	0	0	0
VERMONT	0	0	0	0	1	0	0	1	6	0	0	0
MASSACHUSETTS	0	1	0	0	1	1	1	1	1	0	0	0
RHODE ISLAND	0	0	0	0	1	0	0	1	2	0	0	0
CONNECTICUT	0	0	0	1	0	2	0	0	0	0	0	0

TABLE E-2
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION II AND STATES,
1974, 1975, AND 1976.

	OCCUPATIONAL			NON-C	CCUPAT	ONAL	INT	ENTION	<u>AL</u>	UNC	LASSIF	ED
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION II	3	2	2	14	12	25	2	3	2	0	0	0
NEW YORK	1	1	1	6	5	10	2	2	1	0	0	0
NEW JERSEY	2	1	1	8	7	15	0	1	1	0	0	0

TABLE E-3

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION III AND STATES,
1974, 1975, AND 1976.

	OCCUPATIONAL			NON-	OCCUPAT	IONAL	INT	ENTION	AL	UNC	LASSIFI	ED
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION III	4	4	3	7	12	11	13	3	. 3	0	0	2
PENNSYLVANIA	1	1	1	5	7	5	3	0	1	0	0	0
DELAWARE	0	0	1	0	0	0	0	0	0	0	0	0
HARYLAND	1	0	0	0	. 2	3	1	1	1	0	0	0
DISTRICT OF CO	1	0	0	0	0	0	1	0	0	0	0	0
VIRGINIA	1	3	0	1	2	2	7	2	0	0	0	2
WEST VIRGINIA	0	0	·1	1	1	1	1	0	1	0	0	0

TABLE E-4

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION IV AND STATES,
1974, 1975, AND 1976

	00	CUPATION	IAL_	NON-0	CCUPATI	ONAL	IN	TENTION	AL	UNCLA	SSIFIED	
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION IV	29	49	21	58	57	59	11	19	11	6	2	3
NORTH CAROLINA	4	5	6	6	12	10	1	3	1	3	1	2
SOUTH CAROLINA	0	8	3	6	4	5	0	0	1	0	0	0
GEORGIA	7	. 3	2	13	6	5	5	1	2	0	1	0
FLORIDA	7	3	2	13	9	20	2	4	2	0	0	0
KENTUCKY	0	4	2	8	10	5	0	2	. 0	0	0	0
TENNESSEE	6	22	1	10	4	5	2	4	2	2	0	1
ALABAMA	3	3	2	0	7	5	0	3	1	1	0	0
MISSISSIPPI	2	1	3	2	5	4	1	2	2	0	0	0

TABLE E-5

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION V AND STATES,

1974, 1975, AND 1976

	OCCUPATIONAL			NON-C	CCUPAT	IONAL	INT	ENTION/	<u>L</u>	UNCLA	SSIFIED	<u> </u>
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION V	5	8	10	48	35	44	11	9	8	0	1	ე
OHIO	2	4	2	8 -	8	4	2	0	0	0	0	0
INDIANA	0	1	0	3	4	3	0	1	0	0	0	0
ILLINOIS	1	0	4	21	14	24	2	2	5	0	0	0
MICHIGAN	0	0	1	6	4	6	3	2	1	0	0	0
WISCONSIN	1	0	2	3	2	5	1	3	1	0	0	e
MINNESOTA	1	3	1	7	3	2	3	1	1	0	1	0

TABLE E-6
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VI AND STATES,
1974, 1975, AND 1976.

	OCCUPATIONAL			NON-	OCCUPAT	IONAL	IN	TENTION	<u>AL</u>	UNCLA	SSIFIED	
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION VI	17	21	25	27	22	25	7	6	6	3	1	
ARKANSAS	3	6	4	3	7	5	0	1	0	1	0	0
LOUISIANA	1	0	1	8	2	2	0	1	0	0	0	0
OKLAHOMA	1	2	2	1	3	4	1	0	3	1	1	1
TEXAS	12	13	17	15	10	12	5	4	3	1	0	0
NEW MEXICO	0	0	1	0	0	2	1	0	0	0	0	0

TABLE E-7

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VII AND STATES,
1974, 1975, AND 1976.

REGION & STATE	OCCUPATIONAL			NON-C	CCUPATI	ONAL	IN	TENTION	<u>AL</u>	UNC	LASSIFI	ED
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION VII	7	19	11	17	24	16	2	3	6	0	1	1
IOWA	1	6	6	6	5	4	0	2	2	0	0	0
MISSOURI	4	4	0	5	4	5	0	0	1	0	1	1
HEBRASKA	1	7	3	2	3	0	1	0	0	0	0	0
KANSAS	1	2	. 2	4	12	7	1	1	3	0	0	(

TABLE E-8

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VIII AND STATES,

1974, 1975, AND 1976.

	00	CUPAT	ONAL	NON-	OCCUPAT	IONAL	IN	TENTION	<u>AL</u>	UNCL	ASSIFIE	<u> </u>
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION VIII	1	2	0	2	5	2	3	2	1	0	0	<u> </u>
NORTH DAKOTA	0	- 1	0	0	2	1	0	0	0	0	0	O
SOUTH DAKOTA	0	0	0	0	7	0	0	0	0	0	0	o
MONTANA	0	0	0	0	0	0	0	0	0	0	0	0
WYOMING	0	0	0	0	0	0	0	0	0	0	0	0
COLORADO	0	1	0	2	2	1	3	2	1	0	c	0
UTAH	0	0	0	0	0	. 0	0	0	0	0	0	0

TABLE E-9

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION IX AND STATES,
1974, 1975, AND 1976.

REGION & STATE	OCCUPATIONAL			NON-	OCCUPAT	IONAL	INI	ENTION	<u>VL</u>	UNCL	ASSIFIE	<u>D</u>
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION IX	12	14	7	29	44	34	16	13	13	0	1	0
CALIFORNIA	3	13	4	29	43	32	16	13	12	0	1	0
ARIZONA	9	1	· 2	0	1	2	0	0	0	0	0	0
NEVADA	0	0	0	0	0	0	0	0	0	0	0	0
HAWAII	0	0	1	0	0	0	0	0	1	0	0	0

TABLE E-10

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION X AND STATES, 1974, 1975, AND 1976.

	000	CUPATION	IAL	NON-	OCCUPAT	IONAL	INT	ENTIONA	<u>L</u>	UNCL	ASSIFIE	<u>D</u>
REGION & STATE	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION X	4	5	3	4	6	5	1	2	4	. 1	0	0
IDAHO	1	1	1	0	3	1	0	1	2	0	0	0
WASHINGTON	3	4	2	3	2	3	1	1	2	1	0	0
OREGON	0	0	0	1	1	1	0	0	0	0	0	0
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0

TABLE F=1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1974.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	1	0
II	1	0	1	0
III	0	0,	2	2
IV	. 0	3	15	3
٧	0	0	3	1
VI	3	4	4	2
VII	2	1	2	1.
VIII	0	0	0	1
IX	1	10	0	0
x	0_	2	1	0
TOTAL	<u> </u>	20	29	10

TABLE F-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1974.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	1
II	1	0	0	3
III	0	0	0	4
IV	7	1	0	29
V	1	0	0	5
VI	1	2	1	17
VII	1	0	0	7 .
VIII	0	0	0	1
IX	1	0	0	12
X	_1_	0	0	4
TOTAL	13	3	1	83

TABLE G-1

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

FARMERS

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	1	0
MAINE	0	0	1	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE G-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

	SKILLED OR UNSKILLED	PROFESSIONAL	UNKNOWN	TOTAL
	LABORER	OR SEMI- PROFESSIONAL	NOT CLASSIFIED	
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	1
MAINE	0	0	0	1
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	. 0	0	0	0
CONNECTICUT	0	0	0	0

TABLE G-2

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE

FORMULATING PLANT

OR PESTICIDE

	MANUFACTURING PLANT						
	OBSERVED	OBSERVED	OBSERVED	OBSERVED			
REGION II	1	0	1 .	0			
NEW YORK	0	0	1	0			
NEW JERSEY	1	0	0	0			

COMMERCIAL

APPLICATOR

FARMERS

AGRICULTURAL

WORKER

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	1	0	0	3
NEW YORK	0	0	0	1
NEW JERSEY	1	0	0	2

TABLE G-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

COMMERCIAL

APPLICATOR

FARMERS

AGRICULTURAL

WORKER

PESTICIDE

FORMULATING PLANT OR PESTICIDE MANUFACTURING

•	PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	Ö	0	2	2
PENNSYLVANIA	0	0	1	0
DELAWARE	0	0	0	0
MARYLAND	0	0	0	1
DISTRICT OF COLUMBIA	0	0	1	0
VIRGINIA	0	. 0	0	1
WEST VIRGINIA	0	0	0 .	0

TABLE G-3 (CONTINUED)

	OBSERVED	OBSERVED	OBSERVED	QBSERVED
REGION III	0	0	0	4
PENNSYLVANIA	0	0	0	1
DELAWARE	0	0	0	0
MARYLAND	0	0	0	1
DISTRICT OF COLUMBIA	0	0	0	1
VIRGINIA	0	0	0	1
WEST VIRGINIA	0	0	0	0

TABLE G-4
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

COMMERCIAL

APPLICATOR

FARMERS

AGRICULTURAL

WORKER

PESTICIDE

FORMULATING PLANT

OR PESTICIDE MANUFACTURING

	PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	0	3	15	3
NORTH CAROLINA	0	1	2	1
SOUTH CAROLINA	0	0	0	0
GEORGIA	0	2	3 ·	2,
FLORIDA	0	0	0	0
KENTUCKY	0	0	0	0
TENNESSEE	0	0	5	0
ALABAMA	0	0	3	0
MISSISSIPPI	0	0	2	0

TABLE G-4 (CONTINUED)

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	7	1	0	29
NORTH CAROLINA	0	0	0	4
SOUTH CAROLINA	0	0	0	0
GEORGIA	0	0	0	7
FLORIDA	6	1	0	7
KENTUCKY	0	0	0	0
TENNESSEE	. 1	0	0	6
ALABAMA	0	0	0	3
MISSISSIPPI	0	0	0	2

TABLE G-5

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

COMMERCIAL

APPLICATOR

FARMERS

AGRICULTURAL

WORKER

PESTICIDE

FORMULATING PLANT

OR PESTICIDE

	MARUFACTURING PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	0	0	3	1
OHIO	0	0	2	0
INDIANA	0	0	0	0
ILLINOIS	0	0	0	1
MICHIGAN	0	0	0	0
WISCONSIN	0	0	1	0
MINNESOTA	0	0	0	0

AND STATES IN 1974.

TABLE G-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	1	0	0	5
OHIO	0	0	0	2
INDIANA	0	0	0	0
ILLINOIS	0	0	0	1
MICHIGAN	0	0	0	0
WISCONSIN	0	0	0	1
MINNESOTA	1	0	0	1

TABLE G-6
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
OBSERVED	OBSERVED	OBSERVED	OBSERVED
3	4	4	2

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	3	4	4	2
ARKANSAS	3	0	0	0
LOUISIANA	0	0	1	0
OKLAHOMA	0	0	0	0
TEXAS	0	4	3	2
NEW MEXICO	0	0	0	0

AND STATES IN 1974.

TABLE G-6 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	1	2]	17
arkansas	0	0	0	3
LOUISIANA	ð	0	0	٦
OKLAHOMA	1"	0	0	1
TEXAS	0	2	1	12
NEW MEXICO	0	0	0	0

TABLE G-7

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

AND STATES IN 1974.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

COMMERCIAL APPLICATOR

FARMERS

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	2	1	2	1
IOWA	0	0	1	.0
MISSOURI	2	1	1	0
NEBRASKA	0	0	0	1
KANSAS	0	0	0	0

TABLE G-7 (CONTINUED)

SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	0	0	0	6
IOWA	0	0	0	1
MISSOURI	0	0	0	4
NEBRASKA	0.	0	0	1
KANSAS	0	0	0	0

TABLE G-8

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

FARMERS

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	1
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	1
UTAH	0	0	0	. 0

TABLE G-8 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

AND STATES IN 1974.

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	1
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	1
HATU	0	0	0	в

TABLE G-9
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

FARMERS

	OBSERVED	QBSERVED	OBSERVED .	OBSERVED
REGION IX	1	10	0	0
CALIFORNIA	0	2	0	0
ARIZONA	1	8	0	0
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE G-9 (CONTINUED)

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	1	0	0	12
CALIFORNIA	1	0	0	3
ARI ZONA	0	0	0	9
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE G-10

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
HANUFACTURING
PI ANT

FARMERS

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	2	1	0
I DAHO	0	1	0	0
WASHINGTON	0	1	1	0
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE G-10 (CONTINUED)

SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKHOWN NOT CLASSIFIED	TOTAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	1	0	0	4
IDAHO	0	0	0	1
WASHINGTON	1	0	0	3
OREGON	0	0	0	0
ALASKA	0	. 0	0	0

TABLE H-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1975.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	PLANT			
I	0	0	0	1
II	0	0	1	0
Ш	2	0	1	1
IV	2	4	16	8
V	0	1	6	1
IV	5	4	4	2
VII	7	2	5	2
VIII	. 0	0	0	. 1
IX	5	2	1	3
X	0	2	<u> </u>	0
TOTAL	21	15	35	19

UNITED STATES 1975.

TABLE H-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	1
II	0	1	0	2
III	0	0	0	4
IV	6	0	13	49
٧	0	0	0	8
VI	3	0	3	21
VII	1	1	1	19
VIII	1	0	0	2
IX	1	0	2	14
x		0	0	_ 5
TOTAL	14	2	19	125

TABLE 1-1

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGION AND STATES IN 1975.

r LAIVI			
PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	FORMULATING PLANT OR PESTICIDE MANUFACTURING	FORMULATING PLANT APPLICATOR OR PESTICIDE MANUFACTURING	FORMULATING PLANT APPLICATOR OR PESTICIDE

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	1
MAINE	0	0	0	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	1
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE I-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION 1	0	0	0	1
MAINE	0	0	0	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	1
RHODE ISLAND	0	0	0	0
CONHECTICUT	0	0	0	0

TABLE I-2

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	0	1	0
NEW YORK	0	0	1	0
NEW JERSEY	0	0	0	0

TABLE I-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

SKILLED OR UNSKILLED PROFESSIONAL UNKNOWN TOTAL
LABORER OR SEMI- NOT CLASSIFIED
PROFESSIONAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	1	0	2
NEW YORK	0	0	0	1
NEW JERSEY	0	1	0	1.

VIRGINIA

WEST VIRGINIA

TABLE I-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

COMMERCIAL

APPLICATOR

PESTICIDE

FORMULATING PLANT

1.

0

AGRICULTURAL

WORKER

0

FARMERS

0

	OR PESTICIDE MANUFACTURING PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	2	0	1	1
PENNSYLVANIA	1	0	0	0
DELAWARE	0	0	0	0
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0

0

TABLE I-3 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

S	KILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
·	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	0	0	0	4
PENNSYLVANIA	0	0	0	1
DELAWARE	0	0	0	0
MARYLAND	. 0	0	0	0
DISTRICT OF COLUM	BIA 0	0	0	0
VIRGINIA	0	0	0	3
WEST VIRGINIA	0	0	0	0

TABLE I-4

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	2	4	16	8
NORTH CAROLINA	0	0	3	2
SOUTH CAROLINA	1	1	2	2
GEORGIA	0	0	1	1
FLORIDA	0	1	0	. 0
KENTUCKY	0	0	3	0
TENNESSEE	. 1	1	5	2
ALABAMA	0	0	2	1
MISSISSIPPI	0	1	0	0

TABLE I-4 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	· · · · · · · · · · · · · · · · · · ·		
SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEHI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	6	0	13	49
NORTH CAROLINA	0	0	0	5
SOUTH CAROLINA	1	0	1	8
GEORGIA	1	0	0	3
FLORIDA	2	0	0	3
KENTUCKY	1	0	0	4
TENNESSEE	1	0	12	22
ALABAMA	0	0	0	3
MISSISSIPPI	0	0	0	1

TABLE I-5
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1975.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

COMMERCIAL APPLICATOR

FARMERS

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	0	1	6	1
ОНІО	0	0	4	0
INDIANA	0	0	1	0
ILLINOIS	0	0	0	0
MICHIGAN	0	0	0	0
WISCONSIN	0	0	0	0
MINNESOTA	0	1	1	1

AND STATES IN 1975.

TABLE I-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	0	0	0	8
OHIO	0	0	0	4
INDIANA	0	0	0	1
ILLINOIS	0	0	0	0
MICHIGAN	0	0	0	0
WISCONSIN	0	0	0	0
MINNESOTA	0	0	0	3

TABLE I-6

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

PESTICIDE FORMULATING PLANT

OR PESTICIDE MANUFACTURING

COMMERCIAL

APPLICATOR

FARMERS

AGRICULTURAL

WORKER

•	PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERV ED
REGION VI	5	4	4	2
ARKANSAS	3	1	1	0
LOUISIANA	0	0	0	0
OKLAHOMA	0	0	1	0
TEXAS	2	3	2	2
NEW MEXICO	0	0	0	0

TABLE I-6 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	3	0	3	21
ARKANSAS	0	0	1	6
LOUISIANA	0	0	0	0
OKLAHOMA	. 1	0	0	2 [.]
TEXAS	2	0	2	13
NEW MEXICO	0	0	0	0

TABLE 1-7
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
--	-----------------------	--------	------------------------

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION YII	7	2	5	2
IOWA	0	0	4	1
MISSOURI	2	1	1	0
NEBRASKA	5	0	0	1
KANSAS	0	1	0	0

TABLE I-7 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	1	1	1	19
IOWA	1	0	0	6
MISSOURI	.0	0	0	4
NEBRASKA	0	1	0	7
KANSAS	0	0	1	2

TABLE I-8

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

APPLICATOR

PESTICIDE

FORMULATING PLANT

OR PESTICIDE

AGRICULTURAL

WORKER

FARMER

	MANUFACTURING PLANT				
	OBSERVED	OBSERVED	OBSERVED	OBSERVED	
REGION VIII	0	0	0	1	
NORTH DAKOTA	0	0	0	1	
SOUTH DAKOTA	0	0	0	0	
MONTANA	0	0	0	0	
WYOMING	0	0	0	0	
COLORADO	0	0	0	0	
UTAH	0	0	0	0	

TABLE I-8 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	1	0	0	2
NORTH DAKOTA	0	0	0	1
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	Q	0	0
COLORADO	1	0	0	1
HATU	0	0	0	0

TABLE I-9

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

COMMERCIAL APPLICATOR

FARMER

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	5	2	1	3
CALIFORNIA	5	2	1	3
ARIZONA	0.	0	0	0
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE I-9 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	1	0	2	14
CALIFORNIA	1	0	1	13
ARIZONA	0	0	1	1
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE I-10

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

APPLICATOR

FARMER

AGRICULTURAL

WORKER

PESTICIDE

FORMULATING PLANT

	OR PESTICIDE MANUFACTURING PLANT			NO.WEI
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	2	1	0
IDAHO	0	0	0	0
WASHINGTON	0	2	1	0
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE I-10(CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

SKILLED OR UNSKILLED PROFESSIONAL UNKNOWN OR LABORER OR SEMI-PROFESSIONAL OBSERVED

OBSERVED OBSERVED OBSERVED OBSERVED

REGION X 2 0 0 5

IDAHO 1 0 0 1

	ORZEKAEN	ORZEKAED	ORZEKAED	ORZEKAED
REGION X	2	0	0	5
IDAHO	1	0	0	1
WASHINGTON	1	0	0	4
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE J
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1976.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	1	0
II	1.	0	1	0
III	1	0	0	1
IV	1	3	10	2
٧	2	0	3	2
VI	· 2	9	5	7
VII	3	3	. 2	2
VIII	0	0	0	0
IX	3	3	0	1
X	0	0	_2_	1
TOTAL	13	18	24	16

TABLE J (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1976.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	1
II	0	0	0	2
Ш	0	0	1	3
IV	4	0	1	21
V	3	0	0	10
VI	1	1	0	25
VII	0.	0	1	11
VIII	0	0	0	0
IX	0	0	0	7
X -	0	0	0	3
TOTAL	8	1	3	83

APPLICATOR

PESTICIDE

FORMULATING PLANT

AGRICULTURAL

WORKER

FARMER

	OR PESTICIDE MANUFACTURING PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	1	0
MAINE	0	0	1	0
NEW HAMPSHIRE	0	0	0 .	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE K-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	1
MAINE	U	0	0	1.
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	0-	0	0	0

TABLE K-2

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

PESTICIDE

FORMULATING PLANT

	OR PESTICIDE MANUFACTURING PLANT		WURKER	
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	1	0	1	0
NEW YORK	0	0	1	0
NEW JERSEY	1	0	0	0

COMMERCIAL

APPLICATOR

FARMER

TABLE K-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	0	0	2
NEW YORK	0	0	0	1
NEW JERSEY	0	0	0	7

AND STATES IN 1976.

TABLE K-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	PLANT		····	
REGION III	1	0	0	1
PENNSYLVANIA	0	0	0	0
DELAWARE	0	0	0	1
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	A 0	0	0	0
VIRGINIA	0	0	0	0
WEST VIRGINIA	1	0	0	0

TABLE K-3 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

S	KILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
REGION III	0	0	1	3
PENNSYLVANIA	0	0	1	1
DELAWARE	0	0	0	1
MARYLAND	0	0	0	0
DISTRICT OF COLUM	BIA O	0	0	0
VIRGINIA	0	0	0	0
WEST VIRGINIA	0	0	0	. 1

TABLE K-4

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

COMMERCIAL APPLICATOR

FARMER

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	1	3	10	2
NORTH CAROLINA	0	0	5	1
SOUTH CAROLINA	0	1	. 1	1
GEORGIA	0	0	2	0
FLORIDA	0	0	1	0
KENTUCKY	0	0	1	0
TENNESSEE	0	1	0	0
ALABAMA	1	0	0	0
MISSISSIPPI	0	1	0	0

AND STATES IN 1976.

TABLE K-4 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL	
	OBSERVED	OBSERVED	OBSERVED	OBSERVED	
REGION IV	4	0	1	21	
NORTH CAROLINA	0	0	0	6	
SOUTH CAROLINA	0	0	0	3	
GEORGIA	0	0	0	2	
FLORIDA	1	0	0	2	
KENTUCKY	0	0	1	2	
TENNESSEE	0	0	0	1	
ALABAMA	1	0	0	2	
MISSISSIPPI	2	0	0	3	

TABLE K-5

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

APPLICATOR

PESTICIDE

FORMULATING PLANT OR PESTICIDE MANUFACTURING

FARMER

AGRICULTURAL

WORKER

	PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION Y	2	0	3	2
OHIO	2	0	0	0
INDIANA	0	0	0	0
ILLINOIS	0	0	1	0
MICHIGAN	0	0	0	1
WISCONSIN	0	0	1	1 .
MINNESOTA	0	0	1	0

TABLE K-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
OBSERVED	OBSERVED	OBSERVED	OBSERVED
3	0	0	10
0	0	0	2
0	0	0	0
3	0	0	4
0	0	0	1
0	0	0	2
0	0	0	1
	OBSERVED 3 0 0 3 0 0 0 3 0	LABORER OR SEMI-PROFESSIONAL OBSERVED OBSERVED 3 0 0 0 0 0 3 0 0 0 3 0 0 0 0 0 0 0 0 0	LABORER OR SEMI-PROFESSIONAL NOT CLASSIFIED OBSERVED OBSERVED OBSERVED 3 0 0 0 0 0 0 0 0 3 0 0 3 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0

TABLE K-6

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

APPLICATOR

PESTICIDE

FORMULATING PLANT

OR PESTICIDE

AGRICULTURAL

WORKER

FARMER

	MANUFACTURING PLANT			
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	2	9	5	7
ARKANSAS	2	1	0	F
LOUISIANA	0	0	0	1
OKLAHOMA	0	0	0	1
TEXAS	0	7	5	4
NEW MEXICO	0	1	0	0

AND STATES IN 1976.

NEW MEXICO

TABLE K-6 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

·	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	1	1	0	21
arkansas	0	0	0	0
LOUISIANA	0	0	0	1
OKLAHOMA	0	1	0	2
TEXAS	-1	0	0	. 17

TABLE K-7

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

COMMERCIAL APPLICATOR

FARMER

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	3	3	2	2
IOMA	0	2	1	2
MISSOURI	0	0	0	0
NEBRASKA	2	0	1	0
KANSAS	1	1	0	0

TABLE K-7 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL UNKNOWN OR OR SEMI- NOT CLASSIFIED PROFESSIONAL		TOTAL	
· · · · · · · · · · · · · · · · · · ·	OBSERVED	OBSERVED	OBSERVED	OBSERVED	
REGION VII	0	0	. 1	11	
IOWA	0	0	1	6	
MISSOURI	0	0	0	0	
NEBRASKA	0	0	0	3	
KANSAS	0	0	0	2	

TABLE K-8 OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	0
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	. 0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0 .	0	0	0
UTAH	0	0	0	0

TABLE K-8 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS

AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED		
 	OBSERVED	OBSERVED	OBSERVED	OBSERVED	
REGION VIII	0	0	0	0	
NORTH DAKOTA	0	0	0	0	
SOUTH DAKOTA	'0	0	0	0	
MONTANA	0	0	0	0	
WYOMING	0	0	0	0	
COLORADO	0	0	0	0	
UTAH	0	0	0	0	

ARIZONA -

NEVADA

HAWAII

TABLE K-9

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

PESTICIDE

	FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	APPLICATOR		WORKER	
	OBSERVED	OBSERVED	OBSERVED	OBSERVED	
REGION IX	3	3	0	1	
CALIFORNIA	3	1	0	0	

COMMERCIAL

FARMER

AGRICULTURAL

0

Q

TABLE K-9 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL UNKNOWN OR OR SEMI - NOT CLASSIFIED		TOTAL
		PROFESSIONAL		
REGION IX	0	0	0	7
CALIFORNIA	0	0	0	4
ARIZONA	0	0	0	2
NEVADA	0	0	0	0
HAWAII	0	0	0	1

TABLE K-10

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

COMMERCIAL APPLICATOR

FARMER

AGRICULTURAL WORKER

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	0	2	1
IDAHO	0	0	0	1
WASHINGTON	0	0	2	0
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE K-10(CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

SKILLED OR UNSKILLED PROFESSIONAL UNKNOWN OR TOTAL
LABORER OR SEMI- NOT CLASSIFIED
PROFESSIONAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	0	0	3
IDAHO	0	0	0	1
WASHINGTON	0	0	0	2
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE L-1

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS IN 1974, 1975,

AND 1976.

	1974	1975	1976	
ORGANOPHOSPHATES	40	36	41	
CHLORINATED HYDROCARBON INSECTICIDES	6	5	0	
CHLORINATED HYDROCARBON HERBICIDES, FUNGICIDES, ETC.	1	2	0	
CARBAMATES, AMIDES & RELATED COMPOUNDS	10	31	14	
ARSENIC	0	1	1	
OTHER	26	_ 50		
TOTAL	83	125	83	

TABLE M-1

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS,

1974.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	1	0	0	0	0	0	1
II	0	0	0	2	0	1	3
III	3	0	0	1	0	0	4
IV	16	3	1	2	0	7	29
V	1	0	0	1	0	3	5
VI	7	2	0	3	0	5	17
A II	1	1	0	0	0	5	7
VIII	1	0	0	0	0	0	1
IX	9	0	0	0	0	3	12
X		0_	_0_	1	0_	2	4_
TOTAL	40	6 .	1	10	0	26	83

TABLE M-2

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS,

1975.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	1	0	0	0	0	0	1
II	0 '	0	0	0	1	1	2
III	1	0	0	1	0	2	4
IV	12	1	0	14	0	22	49
Y	2	0	ı	2	0	3	8
VI	9	2	1	3	0	6	21
VII	5	2	0	5	0	7	19
VIII	1	0	0	0	0	1	2
IX	5	0	0	. 3	0	6	14
X	0		0_	3	0_	2	5
TOTAL	36	5	2	31	1	50	125

TABLE M-3

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS,
1976.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0	0	0	0	0	1	1
II	1 .	0	0	0	0	1	2
III	0	0	0	1	0	2	3
IV	7	0	0	5	1	8	21
Ý	6	0	0	1	0	3	10
VI	13	0	0	3	0	9	25
VII	8	0	0	3	0	0	11
VIII	0	0	0	0	0	0	0
IX	5	0	0	0	0	2	7.
X	_1	0	0	_1_	0_	<u>· 1</u>	3
TOTAL	41	0	0	14	1	27	83

TABLE N-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES,

1974.

AGE GROUP	1	11	III	IA	V	VI	VII	VIII	IX	x	U.S. TOTAL
0-4	0	13	7	31	33	13	12	0	25	2	136
5-9	0	0	0	9	6	1	1	0	1	1	19
10-14	1	1	0	3	1	2	0	0	Ø	0	8
15-19	0	1	3	10	3	8	0	0	1	ŋ	26
20-24	1	1	1	11	3	7.	2	2	8	1	37
25-34	1	0	0	9	4.	2	4	0	9	2	31
35-44	0	1	2	12	4	7	2	1	2	O	31
45-54	0	2	5	11	1	5	1	1	7	1	34
55-64	0	0	0	4	4	4.	3	0	1	2	18
65 +	0	0	6	4	5	5	1	2	3	1	27
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
U.S. TOTAL	3	19	24	104	64	54	26	6	57	10	367

TABLE N-2

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES,

1975.

											
AGE GROUP	I	II	III	IV	V	VI	VII	VIII	IX	X	U.S. TOTAL
0-4	2	10	9	36	28	18	9	2	35	4	153
5-9	0	0	0	3	2	0	2	1	0	0	8
10-14	0	2	1	5	0	O	0	0	1	2	11
15-19	1	1	.0	15	3	1	7	0	2	0	30
20-24	. 1	. 0	1	10	6	6	10	0	6	1	41
25-34	0	2	2	13	6	9	4	1	8	3	48
35-44	2	0	1	12	1	6	4	1	4	0	31
45-54	1	1	1	12	4	, 1	3	0	4	3 ·	30
55-64	0	10	2	10	2	6	4	1	5	0	30
65 +	0	1	2	11	1	3	4	3	7	0	32
UNKNOWN	1	0	0	0	0	0	0	0	0	0	1
U.S. TOTAL	8	17	19	127	53	50	47	9	72	13	415

TABLE N-3

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES, 1976.

							 .	 .			
AGE GROUP	I	II	III	IV	V	VI	VII	VIII	IX	X	U.S. TOTAL
0-4	2	23	9	38	31	10	10	0	26	3	152
5-9	0	1	0	5	1	3	0	0	0	0	10
10-14	0	0	0	2	2	0	1	0	0	0	5
15-19	- 1	2	1	5	0	8	2	1	3	1	24
20-24	1	0	1	3	4	4	1	1	8	3	26
25-34	2	1	0	12	11	• 9	5	0	10	2	52
35-44	0	1	5	11	7	6	6	n	2	0	38
45-54	0	0	2	9	2	9	2	0	3	0	27
55-64	1	1	0	5	1	. 3	3	0	0	10	14
65 +	1	D	1	4	3	5	4	1	2	3	24
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
U.S. TOTAL	8	29	19	94	62	57	34	3	54	12	372

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE IN THE UNITED STATES IN 1974, 1975, AND 1976.

YEAR	OBSERVED NUMBER
1974	127
1975	147
1976	148
TOTAL	422

TABLE P-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGIONS IN
1974, 1975, AND 1976

EPA REGION	1974 OBSERVED NUMBER	1975 OBSERVED NUMBER	1976 OBSERVED NUMBER
I	0	2	1
11	13	10	23
Ш	6	9	9
TV	29	34	35
,	30	27	31
I	12	17	10
II	12	8	10
III	0	2	0
x	23	34	26
	2	4	3

TABLE Q-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION AND STATES,

1974, 1975, AND 1976.

	_	•	
REGION AND STATE	1974	1975	1976
REGION I	0	2	1
MAINE	0	0	0
NEW HAMPSHIRE	0	0	0
VERMONT	0	1	0
MASSACHUSETTS	0	1	0
RHODE ISLAND	0	0	0
CONNECTICUT	0	0	1

TABLE Q-2

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION II AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION II	13	10	23
NEW YORK	6	3	9
NEW JERSEY	7	7	14

TABLE Q-3
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION III AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION III	6	9	9
PENNSYLVANIA	4	5	5
DELAWARE	0	0	0
MARYLAND	0	2	2
DISTRICT OF COLUMBIA	1	0	0
VIRGINIA	1	1	1
WEST VIRGINIA	0	1	1

TABLE Q-4

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION IV AND

STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION IV	29	34	35
NORTH CAROLINA	3	8	5
SOUTH CAROLINA	4	3	4
GEORGIA	1	2	2
FLORIDA	7	7	12
KENTUCKY	6	5	5
TENNESSEE	7	2	3
ALABAMA	0	3	3
MISSISSIPPI	1	4	1

TABLE Q-5

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION V AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION V	30	27	31
OHIO	6	5	2
INDIANA	. 3	4	3
ILLINOIS	12	12	20
MICHIGAN	5	4	3
WISCONSIN	2	0	1
MINNESOTA	2	2	2

TABLE Q-6
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VI AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION VI	12	17	10
ARKANSAS	1	6	5
LOUISIANA	6	2	1
OKLAHOMA	0	2	1
TEXAS	5	7	2
NEW MEXICO	0	0	1

TABLE Q-7

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VII AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION VII	12	8	10
IONA	3	1	4
MISSOURI	5	2	2
NEBRASKA	0	. 0	0
KANSAS	4	5	4

TABLE Q-8

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VIII AND STATES, 1974, 1975, AND 1976.

			
REGION AND STATE	1974	1975	1976
REGION VIII	0	2	0
NORTH DAKOTA	0	2	0
SOUTH DAKOTA	0	0	0
MONTANA	0	0	0
WYOMING	0	0	0
COLORADO	0	0	0
HATU	0	0	0

TABLE Q-9

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION IX AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976	
REGION IX	23	34	26	
CALIFORNIA	23	33	24	
ARIZONA	0	1	2	
NEYADA	0	0	0	
HAMAII	0	0	0	

TABLE Q-10

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION X AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION X	2	4	3
IDAHO	0	2.	1
WASHINGTON	1	1	2
OREGON	1	1	0
ALASKA	0	0	0

TABLE R-1

TOTAL OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP

AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	UNKNOWN INSECTICIDE	UNKNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0-4	0	0	0	7	0	0	^	•
5-9	•		_	ı	0	0	0	i
	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	2	0	0	0	0	0	0	2
35-44	0	0	1	0	0	1	0	2
45-54	3	0	0	0	0	0	1	4
55-64	0 .	0	0	0	0	0	0	0
65 +	1	2	1	1	1	0	0	6
J.S. TOTAL	6	2	2	2	1	1	1	15

TABLE R-2

OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE OCCUPATIONAL GROUP, BY AGE GROUP

AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

			4. **					
AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	UNKNOWN INSECTICIDE	UNKNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0-4	0	0	0	0	0	0	0	0
5-9	0	0 .	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	0	0	0	0	0	0	0	0
35-44	0	0	1	0	0	0	0	1
45-54	0	0	0	0	0	0	1	1
55-64	0	0	0	0	0	`0	0	0
65 +	0	0	0	0	0	0	0	0
U.S. TOTAL	0	0	1	0	0	0	1	2

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TABLE R-3

OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE NON-OCCUPATIONAL GROUP, BY AGE GROUP

AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

AGE GROUP	ARSENIC	CHLORINATED - HYDROCARBON INSECTICIDE	UNKNOWN Insecticide	UNKNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0-4	0	0	0	1	0	. 0	0	1
5-9	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	1	0	0	0	0	0	0	1
35-44	0	0	0	0	0	0	0	0
45-54	0	0	0	0	0	0	0	.0
55-64	0	0	0	0	0	0	0	0
65 +	0	0		0	1	0	0	1
U.S. TOTAL	1	0	0	1	1	0	0	3

TABLE R-4

OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE INTENTIONAL GROUP, BY AGE GROUP

AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	UNKNOWN INSECTICIDE	UN KNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0.4	0	0	0	0	0	0	0	0
0 -4 5 - 9	0	0	0	0	0	. 0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	1	0	0	0	0	0	0	1
35-44	0	0	0	0	0	1	0	1
45-54	2	0	0	0	0	0	0	2
55-64	0	0	0	0	0	0	0	0
65 +	1	2	1	1	0	0	0	5
U.S. TOTAL	4	2	1	1	0	1	0	9

Table S-1
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION I AND STATES.

	STANDARD ERROR				
REGION AND STATE	1974	1975	1976		
REGION I	14.34	19.23	18.61		
MAINE	10.06	9.83	9.85		
NEW HAMPSHIRE	0	0	5.33		
VERMONT	0	10.09	0		
MASSACHUSETTS	7.43	11.67	8.52		
RHODE ISLAND	0	0	.10		
CONNECTICUT	7.03	5.91	12.18		

Table S-2
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION II AND STATES.

		STANDARD ERROR			
_	REGION AND STATE	1974	1975	1976	
	REGION II	42.49	46.04	74.09	
	NEW YORK	29.69	23.25	27.92	
	NEW JERSEY	30.40	39.74	68.63	

Table S-3

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION III AND STATES.

REGION AND STATE	1974	1975	1976	 -
REGION III	34.45	34.75	38.31	
PENNSYLVANIA	24.44	15.87	28.79	
DELAWARE	0	0	0	
MARYLAND	13.43	16.02	13.43	
DISTRICT OF COLUMBIA	3.45	0	0	
VIRGINIA	17.61	26.03	16.14	
WEST VIRGINIA	9.33	4.61	14.05	

Table S-4

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION IY AND STATES.

		STANDARD ERROR		
REGION AND STATE	1974	1975	1976	
REGION IV	143.25	171.66	85.55	
NORTH CAROLINA	19.97	55.40	45.72	
SOUTH CAROLINA	17.58	49.86	30.10	
GEORGIA	98.17	24.95	26.45	
FLORIDA	59.93	32.66	39.32	
KENTUCKY	27.78	30.17	23.01	
TENNESSEE	72.89	142.33	20.18	
ALABAMA	15.60	27.39	26.71	
MISSISSIPPI	16.01	17.51	20.64	

Table S-5

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION V AND STATES.

• .	· · · · · · · · · · · · · · · · · · ·	STANDARD ERROR		
REGION AND STATE	1974	1975	1976	
REGION V	92.14	63.72	77.91	
OHIO	28.62	31.87	17.04	
INDIANA	15.20	26.05	28.40	
ILLINOIS	47.84	40.49	59.51	
MICHIGAN	45.15	15.52	28.40	
WISCONSIN	22.14	10.16	18.05	
MINNESOTA	51.20	19.56	17.30	

Table S-6

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION VI AND STATES.

REGION AND STATE	STANDARD ERROR			
	1974	1975	1976	
REGION VI	100.00	94.25	80.96	
ARKANSAS	53.11	60.40	33.55	
LOUISIANA	39.71	20.13	18.55	
OKLAHOMA	12.09	19.54	34.11	
TEXAS	73.44	66.69	61.24	
NEW MEXICO	7.88	0.00	13.06	

Table S-7

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION VII AND STATES.

	STANDARD ERROR				
REGION AND STATE	1974	1975	1976		
REGION VII	41.49	69.60	43.26		
IOWA	22.22	30.31	25.05		
MISSOURI	29.96	29.72	19.76		
NEBRASKA	9.26	49.58	19.71		
KANSAS	15.63	24.16	21.57		

Table S-8

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION VIII AND STATES.

	STANDARD ERROR				
REGION AND STATE	1974	1975	1976		
REGION VIII	26.49	24.04	7.70		
NORTH DAKOTA	0.00	10.80	5.41		
SOUTH DAKOTA	0.00	3.86	0.00		
MONTANA	0.00	0.00	0.00		
WYOMING	0.00	0.00	0.00		
COLORADO	26.49	21.13	5.49		
UTAH	0.00	0.00	0.00		

Table S-9

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION IX AND STATES.

	STANDARD ERROR			
REGION AND STATE	1974	1975	1976	
REGION IX	92.28	88.92	71.09	
CALIFORNIA	87.39	88.63	70.49	
ARIZONA	29.65	7.19	9.12	
NEVADA	0.00	0.00	0.00	
HAWAII	0.00	0.00	1.05	

Table S-10

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

BY EPA REGION X AND STATES.

	STANDARD ERROR				
REGION AND STATE	1974	1975	1976		
REGION X	23.17	35.94	22.57		
IDAHO	3.64	16.60	9.90		
WASHINGTON	22.36	31.00	16.41		
OREGON	4.85	7.44	7.48		
ALASKA	0.00	0.00	0.00		

Table S-11

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976

FOR THE UNITED STATES AND FOR EACH EPA REGION.

		STANDARD ERROR	
REGION	1974	1975	1976
I	14.34	19.23	18.61
II	42.49	46.04	74.09
III	34.45	34.75	38.31
IV	143.25	171.66	85.55
٧	92.14	63.72	77.91
VI	100.00	94.25	80.96
VII	41.49	69.60	43.26
VIII	26.49	24.04	7.70
IX	92.28	88.92	71.09
X	23.17	35.94	22.57
U.S.	231.70	246.43	186.39

TABLE S-12

STANDARD ERROR OF ESTIMATED RATE OF HOSPITAL ADMITTED PESTICIDE POISONINGS (PER 100,000 ADMISSIONS)

IN 1974, 1975, 1976 FOR THE UNITED STATES AND FOR EACH EPA REGION.

	·	STANDARD ERROR	
REGION	1974	1975	1976
I	0.79	1.06	1.03
11	1.17	1.25	1.99
111	0.95	0.94	1.01
IV	2.44	2.84	1.37
V	1.27	0.86	1.04
'I	2.60	2.40	2.00
/11	1.95	3.18	1.94
MIII	2.45	2.16	0.69
X	2.51	2.41	1.91
X	2.17	3.32	2.05
J.S.	0.68	0.71	0.53

APPENDIX T

TRAINING MANUAL FOR
ACUTE HOSPITALIZED PESTICIDE POISONING
(Including Survey Form)
Fort Collins, Colorado
July 13 & 14, 1977

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TRAINING SESSION

COMBINED HOSPITALIZED ACUTE PESTICIDE POISONING STUDY AND HUMAN MILK STUDY

July 13 and 14, 1977 Colorado State University Fort Collins, Colorado

8:00 - 8:45 Overview and Introduction to the Acute Pesticide Poisoning Study and Milk Study, Dr. Eldon Savage

8:45 - 9:20	Class and Characteristics	of Poisoning	Agents, Dr.	C. W. Miller

9:20 -	9:50	Study	Design,	Dr.	Thomas	Keefe
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Wednesday, July 13, 1977

- 10:10 11:00 Contacting the Hospital, Mr. Bill Wheeler
- 11:00 11:40 Role of the Hospital Administrator and Confidentiality, Mr. Roy Johnson
- 11:40 12:40 Lunch
- 12:40 1:20 Hospital Coding, Ms. Lori Plemmons, A.R.T.
- 1:20 1:50 Abstracting Medical Records, Mr. Gary Mihlan and Mr. Gary Norwood
- 1:50 2:40 Work Session
- 2:40 3:10 Contacting Participants, Milk Sample Collection, Packaging, Storage, Handling, Shipping, and Labelling, Ms. Sandy Ford
- 3:10 3:30 Break
- 3:30 4:00 Contacting Participants (Continued), Ms. Sandy Ford
- 4:00 4:30 Completion of Study Participant Form for Milk Samples, Ms. Betsy Goes
- 4:30 Adjourn

Thursday, July 14, 1977

8:30 - 9:30	Work Session - Completion of Study Participant Form for Milk Study, Ms. Betsy Goes
9:30 - 10:10	Sample Analysis for Human Milk, Mr. John Tessari
10:10 - 10:30	Break
10:30 - 11:10	Quality Control, Questions, Mr. Jerry Rench
11:10 - 11:40	Hospital Assignments
11:40 - 12:00	Session Summarization
12:00	Adjourn

Course Participants

Fred Applehans - Colorado

Victor Beat - Iowa

Bruce Bracken - Mississippi

John Buonaccorsi - Colorado

Sam Caldwell - South Carolina

David Dietel - Michigan

Sandra Ford - Colorado

Elizabeth Goes - Colorado

Thomas Goes - Colorado

Pete Hague - New Jersey

Don Hilden - Utah

Darlene Hoover - Texas

Roy Johnson (Hospital Administrator)

Dr. Thomas Keefe - Colorado

Gary Mihlan - Colorado

Dr. C. W. Miller - Colorado

Larry Mounce - Colorado

Dave Nash - Washington

Gary Norwood - Colorado

Adrian Oudbier - Michigan

Rose Parker - Records Librarian, A.R.T.

Lori Plemmons - Records Librarian, A.R.T.

Jerry Rench - Colorado

Dr. Eldon Savage - Colorado

Barbara Stevens - Colorado

Wataru Takahashi - Hawaii

Kim Taylor - Colorado

John Tessari - Colorado

Addison Truxton - Colorado

Mike Watson - South Carolina

Bill Wheeler - Colorado

Julie Yoder - Idaho

A STUDY OF HOSPITALIZED ACUTE PESTICIDE POISONINGS IN THE UNITED STATES 1974-1976

OBJECTIVE

The first study of hospitalized acute pesticide poisonings on a nation-wide scale occurred in 1974 and covered the years 1971-1973. The objective of the first study was to develop nationwide incidence rates for hospitalized pesticide poisoning victims. The main objective of the current study, which cover the years 1974-1976 is to update the national incidence rates and to compare data from both studies for the presence of developing trends. An additional objective is to develop a pilot study to investigate the possibilities of examining emergency room records for information on non-admitted acute pesticide poisonings.

BACKGROUND

For a complete background, refer to the final report of the 1971-1973 study.

RATIONALE

In 1974, the Colorado Epidemiologic Pesticide Studies Center initiated and undertook, with the cooperation of the other Centers, a nationwide study of hospitalized acute pesticide poisoned victims. Medical records, for the years 1971-1973 were examined at randomly selected hospitals across the United States. Data on 1,072 poisoned cases was compiled, analyzed, and national incidence rates were computed.

The results of this study have generated enough interest in possible correlations and trends, that it was decided to undertake a second study using randomly selected general hospitals. Hospitalized pesticide poisoning cases

occurring in the years 1974-1976 will be surveyed and the results and incidence rates will be compared to those of the previous study.

However, as stated in the final report of the 1971-1973 study, the hospital study only applied to poisoning cases that were actually admitted to a hospital for treatment. The possibility existed that a good many milder cases of pesticide exposure occurred, but didn't warrant hospitalization. In order to make an estimate of the proportion of cases that are treated by a physician but not admitted for hospitalization, a pilot Hospital Emergency Room (ER) Study will be incorporated into the current study. The emergency room log books will be examined at approximately 50 hospitals, and information concerning ER treated pesticide victims will be abstracted by the field investigators. This information derived from the ER logbooks will be evaluated and a decision made as to whether to develop this pilot study into a more intensive, full-scale national ER study in the future.

PLAN OF STUDY

Population to be Sampled:

The population to be sampled is the approximately 7,000 general hospitals in the United States. A hospital is classified by the American Hospital Association as "general" if the majority of its admissions are general medical and surgery cases. From a list of general hospitals stratified by number of admissions, a sample will be selected according to the sampling scheme defined below. Each selected hospital will represent a potential cluster of cases, and this cluster will be examined to count the number of pesticide poisoning cases occurring within that cluster.

Selection of the Sample:

In order to increase the precision of the desired estimates, the general hospitals will be stratified by hospital size within each state. Since the estimate of the number of hospitalized acute pesticide poisonings is to be based on admission rates, the best criterion for stratification is the recorded number of admissions for the 1975 calendar year as reported by the American Hospital Association. For those hospitals where no admissions are reported, a ratio estimator was developed using number of admissions and number of beds from reporting hospitals. The stratification plan is shown in the following diagram:

State (e.g., Colorado)

Admission Rate

Hospital 1

:

<A₁/yr. Hospital N₁

. Hospital 1

:

:

<A_m/yr Hospital N_m

The hospitals in a given state were ranked according to admissions and then divided into k quantiles, where k is the number of hospitals to be selected. The k quantiles, which contain approximately the same number of hospitals, constitute the admissions strata. Within each of these strata one hospital was selected at random. Although the probability of obtaining a given sample under this plan is approximately equivalent to the probability of obtaining the sample using simple random sampling, this procedure insures that the distribution with respect to admission of the sample hospitals will be representative of the distribution of all hospitals in the use stratum.

Data Acquisition From Hospital Records:

Each selected hospital will be visited and patient records will be examined by field epidemiologists specifically trained to abstract the desired information. Complete information is desired on time-person-place relationships, pesticide involved, diagnosis, treatment, progrnosis, and related circumstances of the pesticide incident. In order to obtain this information, the acute pesticide poisoning form used in the 1971-1973 study will again be used to abstract the medical records (Appendix A). The record reviews will be collected according to study protocol and forwarded to the Colorado Center for compilation.

Estimation of National Incidence Rates:

The methods to be used in estimating the national incidence rates of hospitalized pesticide poisonings will follow the format used in the 1971-1973 study. For a complete explanation of these methods, see the final report of the 1971-1973 study.

QUALITY CONTROL

A. Selection of hospitals to participate in study:

The hospitals will be randomly selected using random number lists. The selection will proceed under the supervision of a statistician affiliated with the Colorado Center. To insure that a true random selection occurs, the random number lists will be marked and all of the selected hospitals will be rechecked.

B. Selection of alternate hospitals:

In the event that a hospital refuses to cooperate or has closed down, an alternate hospital will be selected in its place. The field investigators will be given the name of a statistician to contact at the Colorado Center in the event that the selection of an alternate hospital will be required.

- C. Training session at Colorado Epidemiologic Pesticide Studies Center:

 Participants from all Centers and Projects in the U.S. will attend and
 be trained in the following procedures:
 - 1. Contacting hospital administrators and obtaining cooperation.
 - 2. Abstracting medical records to the study form.
 - 3. Instruction in completion of cover sheet for each hospital.
 - a. Master cover sheet (Figure I) will be completed by the field investigator for each hospital. It will include a variety of information to be used in logging in the returned forms and quality control of the study.
 - 4. Instruction in return of completed forms and cover sheets to the Colorado Center.
 - D. Logging-in procedure at the Colorado Center and quality check of received data:

One individual at the Colorado Center will be responsible for logging in completed forms and cover sheets for each hospital. This same individual will recontact selected hospitals by phone at the time the forms arrive from each hospital. The hospital administrator and records librarian will be asked key questions to insure the quality of the field investigation. The records librarian at each hospital will be asked to verify a percentage of the medical records abstracted by the field investigator, and the completed forms will be compared to the actual medical records to check for transfer errors.

Figure I

HOSPITALIZED ACUTE PESTICIDE POISONING STUDY, 1974-1976

Hospital	<u></u>
	Status: (Circle appropriate number)
Address:	Original Hospital
City:	Completed - 1
State:	Refused - 2 Closed - 3
Telephone No.: Area Code	Closed - 3
	Alternate Hospital
Administrator:	Completed - 4
Records Librarian:	Refused - 5 Closed - 6
Clerk Who Pulled Records: (if not same as above)	
Date Contacted:	
Date Records Reviewed:	
Number of Cases Recorded:	
Name and Address of Alternate, if Alternate was	Taken for the Original Section:
Hospital:	
Address:	•
City:	
State:	
Field Representative:	
Project/Center:	

E. Transfer of data from abstracted forms to keypunch forms:

One individual from the Colorado Center will be placed in charge of transferring the data to the keypunch forms. This person will be thoroughly trained in the procedure by a consulting statistician from Colorado State University. A percentage of the keypunch forms will be randomly selected and rechecked by the statistician as a means of evaluating the accuracy of the data transfer to the keypunch forms.

CHEMICALS ASSOIATED WITH POISONING CASES Hospital Study 1971-73

Arsenic Trioxide Calcium Arsenate Calcium Cyanide Carbon Tetrachloride Copper Copper Oleate Cyanide Disodium Arsenate Fenten Hydroxide Lead Arsenate

Mercury Mercuric Chloride Methyl Mercury MSMA Prolin Sodium Arsenate Sodium Dimethyl Arsenate Thallium Sulfate Zinc Sulfate

Aldrin Aluminum Phosphate Azodrin BHC Bidrin Black Flag Products Baygon Carbamic Acid Carbaryl Carbofuran

Captan Chlordane

CoRal Chloropicrin Chloropropane Demiton DEET DDVP Diazinon Dimethoate

Di-Syston Demeton Dimecron Dieldrin DDT Diphonate DBCP Endosulfan Fumarin Gardona

Guthion Heptachlor Imidin Kepone Lannate

Lindane Malic Hydrazide Malathion Methyl Parathion Mevinophos Methoxychlor META Naphthalene Nicotine Paraquat

Picloram Parathion **Paradichlorobenzene** Phenylphosphorothyolate Phorate Pyrethrum Phosphorus Ronne 1 Rotenone

Strychnine Sodium Floride **TEPP** Temik Thiram Trichlorfon Trifluralin Toxaphene Vikane Warfarin

2,4-D 2,4-D Amide 2,4,5-T 1080

TYPES OF PESTICIDES

Pesticides are generally classed according to their intended use. These include:

acaricides (miticides)

molluscicides

insecticides

repellents

nematocides

algaecides

fungicides

rodenticides

herbicides

plant growth regulators

attractants

FORMS IN WHICH PESTICIDES ARE MADE

aerosols

granules and pellets

baits

solutions

dusts

wettable powders

emulsifiable concentrates

POISONING AGENTS

There are many ways one may classify poisoning agents. One convenient scheme is as follows:

agricultural

medicinal

household

natural

industrial

CONTACTING THE HOSPITAL

Initial contact with the hospital is vital to the success of the study. As a result, the first few minutes predicate success or failure to obtain permission to review hospital records. Each field investigator will have to develop a personal method for approaching the hospital administrator.

A successful method of approaching a hospital administrator has been through an introductory letter requesting cooperation of the hospital. An example of such an introductory letter used in the 1971-73 Acute Hospitalized Pesticide Poisoning Study is included in this manual. The letter will give the investigator an introduction and yet not give the hospital the opportunity to refuse by letter. Most people, including hospital administrators, will find it more difficult to refuse the investigator personally than to refuse by mail.

Most often the first person you will contact in the hospital is the hospital administrator's secretary. This is frequently the major obstacle between you and the administrator, since part of the secretary's job is to screen persons wanting to see the administrator. Here a confident, polite, and insistent attitude will usually yield either admittance to the office or an appointment with the administrator. Occasionally the secretary may handle the matter, by-passing the administrator, by referring you directly to the medical records department. In this case, the secretary will either call the medical records department or direct you to the office. In the latter case, use the reference by stating to the medical records director that you have been referred "by the office" of the administrator.

In all cases, either with the administrator or the director of medical records, emphasize the confidentiality of the data obtained and freely explain all phases of the study. It is vital that each field investigator be thoroughly acquainted with all phases of the study. Hospital code numbers for HICDA and SNODO are available to the investigator so that a minimum amount of time will be needed from the medical records department. Records should be abstracted in whatever place or time is convenient for hospital personnel. Additionally, the records director should be assured that any abstracted information obtained by the investigator can be reviewed by hospital personnel prior to leaving the hospital.



College of Veterinary Medicine
and Biomedical Sciences
Institute of Rural Environmental Health
Colorado Epidemiologic Pesticide Studies Center
Spruce Hall

Colorado State University Fort Collins, Colorado 80523

Dear Sir:

This letter is to request your permission for a medical records survey of pesticide poisonings during 1971, 1972, and 1973. The purpose is to collect data for a nationwide study of the epidemiology of this condition. Diagnostic codes appropriate to these conditions are 983.9, 985.0, 985.1, 985.9, 987.1, 987.4, 987.9, 989.1, 989.2, and 989.3 of either the ICDA-8 or HICDA.

Thomas Conway, H. William Wheeler, Fred Applehans, or Lawrence Mounce, Field Epidemiologists for the Epidemiologic Pesticide Studies Center at Fort Collins, Colorado will be in your area and will call on you and your Chief Medical Records Librarian to further explain the study.

Thank you for your time and consideration.

Sincerely,

Eldon P. Savage, Ph.D., Director Colorado Epidemiologic Pesticide Studies Center

EPS:bb





COMMISSION ON PROFESSIONAL AND HOSPITAL ACTIVITIES, 1973, HOSPITAL ADAPTATION OF ICDA - 2nd EDITION, ANN ARBOR, MICHIGAN

983	Toxic effect of corrosive a	romatics, acids and caustic alkalis	
	983.9 Caustic Numbers		
985	Toxic effect of other metal	s chiefly nonmedicinal in source	
	985.0 Mercury and its comp	pounds	
	985.1 Arsenic and its comp	pounds	
	985.9 Other		
987	Toxic effect of other gases	, fumes or vapors	
	987.4 Freons: methyl bron	nide, methyl chloride	
989	Toxic effect of other subst	tances chiefly nonmedicinal as to source	e
	989.0 Cyanid (Gas)		
	989.1 Strychnine		
	989.2 Chlorinated pesticio	des	
	989.3 Other pesticides		

STANDARD NOMENCLATURE OF DISEASES AND OPERATIONS, 6th EDITION (SNODO)

- 32 Due to metals, metalloids, and their compounds, inorganic and organic exclusive of 312, 313, 314
 - 321 Arsenic, selenium, tellurium, and their compounds
 - 3211 Arsenic trioxide, arsenites, and other inorganic trivalent arsenic compounds
 - 3212 Arsenates and other inorganic pentavalent arsenic compounds
 - 3213 Arsine and other organic compounds with trivalent arsenic 32131 Arsine
 - 32134 Chlorovinyldichloroarsine (lewisite) 32136 Diphenylaminochloroarsine (adamsite)
 - 3214 Organic compounds with pentavalent arsenic; e.g., sodium cacodylate, sodium arsanilate, carbasone, carbasone oxide, and thiocarbasone 32143 Tryparasamide
 - 3215 Selenium and its compounds
 - 3216 Tellurium and its compounds
 - 3243 Mercury and its compounds
 - 32431 Inorganic mercuric salts
 - 32432 Inorganic mercurous salts
 - . 32433 Alkyl mercury salts
 - 32434 Phenyl mercury salts and esters
 - 32435 Organic mercurial diuretics
 - 32436 Organic mercurial antiseptica
 - 32437 Organic mercury compounds-not elsewhere classified
 - 36 Economic poisons and chemical warfare agents
 - 361 to 362 Insecticides and poisons against other invertebrate pests (miticides, hematocides, etc.). See also 363, 364, and 365.
 - 3611 to 3612 Halogenated hydrocarbon insecticides
 - 36111 Aldrin
 - 36112 Benzene hexachloride
 - 36113 Chlordane
 - 36114 Dichlorodiphenyl trichloroethane
 - 36116 Heptachlor
 - 36121 Lindane
 - 36123 Toxaphene
 - 3613 Halogenated hydrocarbon insecticides containing organic oxygen
 - 36134 Dieldrin
 - 36135 Methoxychlor
 - 3614 Halogenated hydrocarbo: insecticides (miticides) containing organic sulfur (with or without oxygen)
 - 36141 Aramite
 - 36145 Ovex (Ovotran)

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3615 to 3616 Organic phosphorous insecticides
    36158 Malathion
    36162 Para-oxon
    36163 Parathion
   3617 Insecticides from botanical sources (and related synthetic
         substances)
    36171 Nicotine and its salts
    36173 Pyrethrum
    36174 Rotenone
   3619 Miscellaneous insecticides
          Organic thiocyanates. See also: fumigants (363), re-
          pellents (364), petroleum oils (3311), dinitrophenol
          derivatives (3655)
364 Repellents
   3641 Simple esters and diesters except benzyl benzoate (3355)
         36416 Dimethyl phthalate
   3642 Amides
         36421 Diethyl toluamide
   3643 Glycols and glycol ethers
         36433 Ethyl hexanediol
   3644 Miscellaneous repellents
         36441 Butopyronoxyl
365 Herbicides (weed killers, defoliants, desiccants, soil
    sterilants) and plant growth regulators
   3651 Chlorophenol and chlorophenoxy derivatives
         36517 Pentachlorophenol
   3652 Chloralkyl compounds
         36521 Trichloroacetic acid and sodium salts (TCA)
    3653 Derivatives of urea
         36531 Monuron
         36532 Diuron
         36533 Fenuron
   3654 Carbanates and other amides-exclusive of 3653
         36541 Isopropyl-N-phenyl carbamate (IPC)
         36545 Ammonium sulfamate
   3655 Dinitro alkyl phenols except 33716 dinitrophenol
         36551 Dinitro-o-cresol (DNC)
   3656 Inorganic and metallo-organic compounds
        For specific classification, see 31 and 32
    3657 Miscellaneous except allyl alcohol (36372), acrolein
         (3333), potassium cyanate (3175)
         36571 Aminotriazole
         36572 Triazines
366 Fungicides
   3661 General
        For specific classification, see 31 and 32
    3662 Dithiocarbamates and related fungicides
         36621 Nabam
         36622 Ferbam
         36623 Maneb
         36626 Thiram
```

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3663 Quinones
             36631 Dichlone
            36632 Chloranil
        3664 Derivatives of phenol- exclusive of 3663, pentachloro-
             phenol (36517), hexachlorophene (34401), salicylic acid
             (34374)
             36643 Dichlorophene
             36645 o-Phenylphenol
             36646 Tri- and tetrachlorophenol
        3665 Heterocyclic nitrogen compounds
             36652 Captan
             36653 Cycloheximide
             36656 Glyodin
367 Rodenticides and other vertebrate poisons
        3671 Inhibitors of prothrombin formation except bishydroxy-
             coumarin (35213)
             36711 Warfarin
             36712 Pivalyl indandione
        3672 Inorganic poisons
             For specific classification, see 31 and 32
        3673 Poisons of botanical origin except rotenone (36174)
             36731 Strychnine and its salts
             36732 Red squill
             36733 Ricin
        3674 Miscellaneous
             36741 A-Naphthylthiourea
             36742 Sodium fluoracetate
             36743 Castrix
```

INSTRUCTIONS FOR THE COMPLETION OF THE ACUTE PESTICIDE POISONING SURVEY FORM

The field investigators shall be responsible for the collection of complete and accurate data in order that the survey form may be coded properly. Certain sections on the form are to be completed only by the "coding" personnel at the Colorado Center, while data for other sections will be entered by the field investigators. The specific duties of the field investigators are outlined below.

Card Code 1:

- 1. Entries 1 through 32 will be completed by Colorado Center coding personnel only. DO NOT write anything in these spaces, except if an emergency room hospital is being investigated. In this case, please mark (X), column 32 after E.R.
- 2. Field investigator each field investigator will be assigned a two digit code number by the Colorado Center. This number must be placed in the entry lines (33-34) at the time of form completion.
- 3. Date of visit the field investigator is to enter the date when the hospital was first contacted in person. The date is to be entered in spaces 36-41 as month/day/year, two digits for each, so that, for example, July 5, 1977, is entered as 07/05/77.
- 4. The person doing the actual data transfer (data retrieval) is to sign on line entitled "Data retrieved by . . . "
- 5. If a hospital staff member retrieved the data, then <u>circle</u> 1 Yes; if not, then circle 2 No.
- 6. Complete the space provided for the hospital's name and address <u>before</u> leaving the hospital.
- 7. Hospital record number the field investigator is to enter the hospital record number on the line provided. DO NOT write it in the coding spaces. Be sure to write in the complete record number as it appears in the patient's medical record, including all letters, numbers, dashes, etc. If in doubt as to what is the record number, please ask the librarian to assist you.
- 8. Admission date and discharge date these dates are to be

- entered in the appropriate space as stated above in number 3.
- 9. Admission time the time of admission is to be entered in spaces 66-69 in the twenty-four hour scale, i.e., 3:30 P.M. would be entered as 15:30 and 2:20 A.M. as 02:20.
- 10. If the patient was transferred to the hospital from another hospital, then circle 1 Yes; if not, then circle 2 No.
- 11. Write out the patient's specific occupation as it appears on the hospital record.
- 12. Write in name of attending physician.
- 13. Enter patient's birthdate (digit form), race, first and last initials, address (City and State), and circle the appropriate sex. For address, just record the City and State. For race, please use one of the following designations:
 - (a) Caucasian
 - (b) Negro
 - (c) Oriental
 - (d) American Indian
 - (e) Mexican American
 - (f) Other (Specify)
 - a) Unknown.

Card Code 2:

- 1. Date of poisoning enter date of poisoning in digit form as stated in number 3.
- 2. Time of poisoning the time of poisoning is to be entered in the twenty-four hour scale.
- 3. Place of poisoning <u>circle</u> the appropriate response and specify "other".
- 4. Causative agent list the name of the agent responsible for the poisoning as stated in the hospital record.
- 5. Pesticide code <u>DO NOT</u> write in this space. Code will be assigned by personnel at the Colorado Center.
- 6. Other pesticides involved <u>circle 1</u> yes, if another pesticide was involved in the poisoning, and specify the name of the agent in space provided; if none, then <u>circle 2</u> No. If unknown, <u>circle 3</u> Unknown.
- 7. Other chemical involved circle 1 Yes, if another chemical was involved in the poisoning, and specify the compound in

- space provided; if none, then <u>circle 2</u> No. If unknown, <u>circle 3</u> Unknown.
- 8. Route of exposure circle the appropriate response(s).
- 9. Type of formulation circle the appropriate response.
- 10. Type of exposure circle the appropriate response.
- 11. Diagnosis write out the diagnosis as written in the hospital record and enter the assigned ICDA code number in the corresponding spaces. If more than one final diagnosis, record all diagnoses and ICDA codes.
- 12. Circumstances of exposure please summarize as completely and accurately as possible the circumstances surrounding the poisoning episode.
- 13. Laboratory tests place an "X" in the space preceding the test done, enter date, laboratory results, and name of laboratory. DO NOT write in entry lines 63, 65, and 67.

 Other is meant to include other lab tests used to diagnose a pesticide exposure and does not include routine blood counts, blood chemistries, and urinalysis.
- 14. Treatment place an "X" in the appropriate entry line for each of the drugs administered to the patient. Please specify any drugs given other than those listed.
- 15. Prognosis place an "X" in the appropriate entry line, and denote any comments concerning the condition of the patient at time of discharge or death (i.e., autopsy report).
- 16. Write in the total number of symptoms circled from Card Code 3 in spaces 78 and 79.

Card Code 3:

Symptoms - please <u>circle</u> numbers to all corresponding symptoms or signs experienced by the poisoning victim as they appear in the patient's medical record. Specify other symptoms which are not listed.

NOTE: If data is not available or is unknown for some of the questions, \underline{DO} NOT write "Unknown" or "Not Available" in the coding spaces; rather, make a notation below or next to the appropriate question.

ACUTE PESTICIDE POISONING SURVEY FORM

Form ID	_ Card Code $\frac{1}{2}$ Sta	te Code City Code $_{\overline{1}}$		
		de Hospital Code No. $\frac{1}{1}$		
AMAID Number	E	.R	6	
Hospital C		Patient	Data	
Field investigator	33	Hosp. record number		
Date of visit	36 _//	Admission date Admission time		
Data retrieved by (name)		Discharge date 66	<i></i>	
Retrieved by hosp. pers. 1 Yes 2 No	42	Occup		
Name of hospital	L	Attending physician 75		
AddressCityState		Birthdate//	Initials	
Zip Code		Address: CityState		
Pesticide Poisoning History				
Card code	2	Routes of exposure 35 Oral 36 Dermal	35 36	
Date of poisoning Time of poisoning	<u>-</u> e	37 Resp. 38 Unknown	37 38	
Place of poisoning 1 Home 2 Work 3 Other Specify Other	16	Type of formulation: O Unk 5 W.P. Gas 6 Oil	40	
Causative agent		2 Dust 7 Aerosol 3 Gran 8 Liquid 4 E.C. 9 Other		
Pesticide code - Other pesticides involved	23	Type of exposure: 1 Occupational		
1 Yes 2 No 3 Unknown Specify	31	2 Nonoccupational 3 Intentional	42	
Other chemicals involved 1 Yes 2 No 3 Unknown Specify	33			
	т-	<u> </u> 25	(Over)	

Diagnoses			ICDA Codes
			46
	<u></u>		50
			54
Circumstances of Exposure	1		58 —
Laboratory Tests			
Test	Date Results		Lab
ChE	/		
Residue Analysis	$\frac{1}{1} - \frac{1}{1} - \frac{1}{65} - \frac{1}{1}$		
0ther	$J_{} = J_{} = \frac{67}{67} = \frac{1}{12}$		
Treatment: Atropine	2-PAM Phenobarb.	Pentobarb. CaGlucon	nate BAL 73
Prognosis: Live 74 Deat	th Autopsy Condit	tion	
Comments:			
Total Number Symptoms Cir Symptoms - Card Code 3	·cled 78 —		
11 Abdominal pain, cramps	: 26 Farache	41 Loss of hearing	55 Tightnoor in chart
11 Andominal pain, cramps 12 Anorexia 13 Blurred vision 14 Chills 15 Coma 16 Confusion 17 Constricted pupils 18 Convulsions 19 Cough	27 Epistaxis 28 Fainting 29 Fatigue 30 Fever 31 Gas 32 Headache 33 Hyperirritability 34 Increased salivation	42 Loss of vision 43 Malaise 44 Nasal stuffiness 45 Nausea 46 Numbness 47 Palpitations 48 Pain on urination 49 Rhinitis	55 Tightness in chest 56 Tingling extremities 57 Tinnitus 58 Tremor, fasciculations 59 Vertigo 60 Vomiting 61 Weakness 62 Wheezing 63 Other
20 Cyanosis	35 Increased sweating	50 Shortness of breath	
21 Depression 22 Dermatitis	36 Increased tearing 37 Insomnia	51 Sinus pain 52 Skin flushing	65 Other 66 Other
23 Diarrhea	38 Jaundice	53 Sore throat	67 Other
24 Dizziness 25 Dyspnea	39 Joint swelling 40 Leg pain, cramps	54 Spitting of blood	68 Other

REMINDER: Please check form for completeness.