# OF HOSPITAL ADMITTED PESTICIDE POISONINGS



# NATIONAL STUDY OF HOSPITAL ADMITTED PESTICIDE POISONINGS

EPIDEMIOLOGIC STUDIES PROGRAM

HUMAN EFFECTS MONITORING BRANCH

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# NATIONAL HOSPITAL STUDY OF ACUTE PESTICIDE POISONINGS ADMITTED TO GENERAL CARE HOSPITALS

### CHAPTER I

### INTRODUCTION AND LITERATURE REVIEW

Acute poisonings by pesticides are a continuing problem in the United States. All pesticides are considered toxic and can cause illness or even death when misused. The toxicity of a pesticide, route of exposure, or formulation, as well as the age, sex, race, and physical and/or mental health status of the user may play an important role in resulting morbidity or mortality (1).

Except for acute hospitalized cases, morbidity data related to pesticide poisonings are not so readily available nor so reliable as are mortality data. Much of the problem lies in the lack of an adequate definition for pesticide poisoning. Some researchers believe that nonfatal cases may legitimately range from exposure leading to no illness, to exposure resulting in severe symptomatology and permanent physical damage; others think that only cases resulting in significant illness should be identified as a pesticide poisoning (2,3).

It has been estimated that mortality resulting from pesticide intoxication approaches one death per million population annually, and that pesticides are responsible for approximately 10 percent of all deaths associated with the ingestion of a foreign substance, i.e., a liquid or solid (3,4). Hayes and Pirkle reported a total of 111 pesticide poisoning deaths in the United States in 1961; 69.4 percent of the victims were white and 30.6 percent black (5). Furthermore, more than 51 percent of the observed deaths occurred in the 10 year age group. It has been estimated that more than 50 percent of the deaths among children involved

misuse (6). Davies reported 25 deaths related to pesticide exposure in the greater Miami, Florida, area between January 1963 and August 1965; 36 percent of the victims were children (7). California, which maintains accurate records on pesticide poisonings related to occupational exposure, reported 38 deaths between 1951 and 1970 (7).

In 1970 McLeod reported on 107 pesticide poisonings treated at Charity Hospital in New Orleans, Louisiana, from 1965 through 1967. Lisella et al. reported on 67 pesticide poisonings in Linn County, Iowa, 1965-68. In a 1970 survey of Arizona physicians, Morgan and Roan reported that 148 physicians treated 469 pesticide poisonings; and in a 1971 survey conducted by the Colorado Pesticide Study (8,9), Colorado physicians reported treating 154 pesticide poisonings. Reich et al. noted that in a six-year period (1960-1966), 275 acute pesticide poisonings were reported in the lower Rio Grande Valley of Texas (10).

Data on acute pesticide poisonings accumulated in such a manner do not represent a national picture but they do provide a rough assessment of poisonings reported in varied geographic regions, through a diverse and complicated reporting mechanism. To compound the situation, there is no recognized reporting mechanism suitable for the systematic identification, characterization, and reporting of pesticide poisonings. What does exist is a diverse mixture of reporting by State and Federal agencies, scientific investigators, consumer groups, and private citizens. For example, in 1974 the Pesticide Episode Review System (PERS) reported 1561 human pesticide poisonings. PERS is a voluntary reporting system that collects, collates, and reports pesticide poisoning data from such sources as State health departments and poison control centers. The State of California, with its mandatory reporting system related to workmen's compensation and

the payment of a physician's fee for treatment, reported on more than 1100 pesticide poisoning cases in 1974 (7). If these figures are accurate then California apparently accounts for more than 70 percent of all human pesticide poisonings reported to that system. A more reasonable explanation is that PERS is inadequately reported. Regardless of the problems associated with the reporting methods, it is clear that pesticide poisonings pose a significant threat to human health.

### CHAPTER II

### PURPOSE AND SCOPE

There is no reliable system capable of reporting, collecting, collating, and disseminating accurate information on the status of pesticide poisonings in the United States today. Not only is the collecting and reporting system complex and confusing; it simply does not work effectively. Even if the system reporting inputs were in concert and working, there are little, if any, accurate data on the morbidity and mortality of pesticide poisonings available to report. It is virtually impossible, without demanding cooperation from physicians treating pesticide poisonings, to develop reliable figures on cases treated outside the environs of a general-care hospital. Records of acute pesticide poisoning cases admitted for treatment provide the best potential for a reliable data source. Hospitals of the American Hospital Association must maintain a current and complete medical record on each patient. Records contain the patient's identifying data and consent forms, medical history, record of physical examination, physicians' progress notes, operative notes, nurses' notes, routine x-ray and laboratory reports, doctors' orders, and final diagnosis (11). Furthermore, to be listed as an acute hospitalized pesticide poisoning case requires that a patient see a physician; that the physician be adequately familiar with pesticide poisonings for a correct diagnosis; and that the patients' illness be severe enough to require hospitalization.

The purposes of this study were: use hospital patient records to develop accurate and reliable data on the magnitude and character of hospital-admitted poisoning cases, and to develop for the first time

nationwide incidence rates for hospitalized acute pesticide poisoning cases among those persons admitted to general-care hospitals.

The study design omitted victims of undiagnosed pesticide poisoning, emergency-room patients who are not assigned a hospital bed, and patients treated by physicians outside the hospital environment.

### CHAPTER III

### **METHODS**

The objective of the study, as stated in Chapter II, was to develop nationwide 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 (11).

Hospitals were the primary sampling units. From a complete list of general-care hospitals in the United States a 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 hospitals was stratified according to: pesticide practices in their respective areas defined as low use or high use, and hospital size within each use level, State, and Epidemiologic Studies Program (ESP) center of Excellence.

From this sampling frame the study was selected. The stratification plan is shown on the following pages.

High

Admission Rate		Admission Rate	
<b>V</b>	Hospital 1		Hospital l
< A <sup>L</sup> /yr.	Hospital N <mark>L</mark>	≤ A <sub>1</sub> <sup>H</sup> /yr.	Hospital N <mark>L</mark>
:	Hospital 1	:	Hospital 1
< Am/yr.	Hospital N <sub>m</sub>	< A <sup>H</sup> /yr.	Hospital N <sub>m</sub>

The stratum boundaries, i.e.,  $A_1^L$ ,  $A_2^L$ ,...,  $A_m^L$ , and the number of hospitals sampled within each area were determined by the actual distribution of admission rates for the hospitals included in the sampling frame. allocation of the sample to each stratum was constructed so that each stratum had at least some limiting lower sampling rate. The number of hospitals to be sampled within a high-use or low-use area of a State was determined in the following manner. The hospitals within a given use stratum were ranked according to admissions and then divided into k quantiles, where k the number of hospitals to be selected. The k quantiles, containing approximately the same number of hospitals, constitute the admissions strata. Within each stratum 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 ensures that the distribution of admissions into the sampled hospitals will be representative of the distribution of admissions into all hospitals in the same use stratum.

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 (Cochran, 1963), two of the more natural estimators are the combined ratio estimate

$$\hat{Y}_{C} = \begin{pmatrix} n & N_{h} & y_{h} \\ \frac{h=1}{n} & N_{h} & y_{h} \\ \frac{\Sigma}{h=1} & \frac{N_{h}}{n_{h}} & X_{h} \end{pmatrix}$$

and the stratified ratio estimate

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

Within a given use stratum of a 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 x is the total admissions of all hospitals within the use stratum. Within the  $h\frac{th}{}$  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  $h\frac{th}{}$  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 is 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

$$\hat{Y} = \begin{pmatrix} n & & \\ & \Sigma & y_h \\ \hline & & & \\ & & n & \\ & & \Sigma & x_h \\ & & & h=1 \end{pmatrix} X.$$

The estimator  $\hat{Y}$  arises from ignoring stratification by admissions and therefore assumes that the true incidence rate is constant over admissions strata. Since the probability of selecting a given sample under the sampling scheme is approximately equivalent to the probability of selection under simple random sampling, the variance of  $\hat{Y}$  assuming simple random sampling should be a good approximation to the variance of  $\hat{Y}$  based on the sample design. 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 poisonings within a given use stratum within a State.

Thus, for each year from 1971 to 1973, the sample was stratified. Main strata were the States and substrata were the pesticide use levels, either low or high. 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 when subpopulation refers to all general hospitals, i.e., AHA Class 10 hospitals, within a given pesticide use area of a given State for a given year.

Within the  $u\frac{th}{}$  pesticide use class of the  $s\frac{th}{}$  state of EPA region r:

n denotes number of hospitals sampled.

 $N_{rsu}$  denotes number of hospitals in the sampled subpopulation.

 $x_{rsui}$  denotes admission of the i $\frac{th}{t}$  sampled hospital.

 $y_{rsui}$  denotes number of cases seen in the i $\frac{th}{t}$  sampled hospital.

 $x_{rsu}$  denotes admissions of all  $n_{rsu}$  sampled hospitals.

 $y_{rsu}$ . denotes total number of cases seen in all  $n_{rsu}$  sampled hospitals.

X denotes total admittance of all the hospitals in the subpopulation.

 $P_{rsu} = \frac{y_{rsu}}{x_{rsu}}$  denotes proportion of total cases to total admittance for sampled hospitals.

Within the  $u^{\frac{th}{u}}$  use class within the  $s^{\frac{th}{u}}$  State of EPA region r, the estimated incidence, in terms of the number of admissions to the subpopulation, is

$$\hat{Y}_{rsu} = P_{rsu} X_{rsu}$$

Per 100,000 admissions, the estimated incidence rate is

$$\hat{R}_{rsu} = 100,000 P_{rsu}$$

Since the estimators of the incidence rate are simple ratio estimators, the estimated variances of the estimators are:

$$V[\hat{Y}_{rsu}] = \frac{(N_{rsu} - n_{rsu})}{n_{rsu}} \frac{N_{rsu}}{(n_{rsu} - 1)} \frac{N_{rsu}}{i=1} \frac{(y_{rsui} - p_{rsu})^2}{(y_{rsui} - p_{rsu})^2}$$

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

Because the true incidence rate may not be constant among use strata or States, the appropriate estimate of incidence over a combination of

use strata is the sum of the estimates of incidence for each use stratum. Since the use strata are considered independent, the variance of the estimate over the combination of strata would be the sum of the variances of the estimates of each stratum. Hence the estimated incidence rate for the uth pesticide use class within the rth EPA region is

$$\hat{\mathbf{y}}_{\mathbf{r}\cdot\mathbf{u}} = \frac{\mathbf{n}_{\mathbf{r}\cdot\mathbf{u}}}{\mathbf{s}=1} \hat{\mathbf{y}}_{\mathbf{r}\mathbf{s}\mathbf{u}},$$

with estimated variance  $V[\hat{Y}_{r.u}] = \sum_{s=1}^{n_{r.u}} V[\hat{Y}_{rsu}]$ .

Expressed in terms of 100,000 admissions the incidence is

$$\hat{R}_{r \cdot u} = (\frac{\hat{Y}_{r \cdot u}}{X_{r \cdot u}}) \times 100,000;$$

the variance of this estimator is given by

$$V[\hat{R}_{r.u}] = \left(\frac{100,000}{X_{r.u}}\right)^2$$

Incidence rates for various combinations of substrata were also estimated: for example, the incidence rate for Maine as a whole, or the incidence rate for the area composed of low usage regions of Maine, Vermont, and New Hampshire. For each substratum (use within State) in the region of interest, authors obtained the following values:  $X_{rsu}$ , the total admissions of all hospitals in the subpopulation;  $\hat{Y}_{rsu}$ , the incidence rate in terms of  $X_{rsu}$ ; and  $V[\hat{Y}_{rsu}]$ , the associated variance. By summing all the  $\hat{Y}_{rsu}$ ,  $V[\hat{Y}_{rsu}]$ , and  $X_{rsu}$  of all substrata in the region of interest, authors obtained the following: X, the total admissions of all hospitals in the regions;  $\hat{Y}$ , the estimated incidence for the region expressed in terms of X; and  $\hat{V}$ , the estimated variance of  $\hat{Y}$ .

In terms of 100,000 admissions the estimated incidence for the region is

$$\hat{R} = \frac{100,000}{X} \hat{Y},$$

which has variance

$$V(\hat{R}) = (100,000)^2 \hat{V}$$
.

The State of Colorado, for example, was computed as follows:

Let  $y^L$  = total hospitalized acute pesticide poisoning cases per year in the low usage area of Colorado.

 $X^{L}$  = total admissions/year for all general hospitals in the low usage area of Colorado.

x<sup>L</sup> = total admissions/year for the sampled hospitals in the low usage area of Colorado.

The estimate of the total number of hospitalized acute poisoning cases for the low usage area of Colorado is then

$$\hat{Y}^{L} = \frac{\chi^{L}}{\chi^{L}} y^{L}.$$

Similarly, with an obvious change in notation, the estimate for the high usage area is

$$\hat{Y}^{H} = \frac{\chi^{H}}{\chi^{H}} y^{H} .$$

The estimate for Colorado would then be given by

$$\hat{\gamma} = \hat{\gamma}^{L} + \hat{\gamma}^{H} .$$

The estimate for other regions follows from subregions such as this.

Besides total incidence  $(\hat{Y} \text{ and } \hat{R})$  it was desirable to obtain incidence rates for various parts 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.

Calling y the total number of cases observed,  $y_0$  the number of cases of the type of interest and  $\hat{Y}$  and  $\hat{R}$  the estimated incidence rates over the collection of relevant substrata, the estimated incidence for the cases of interest are

$$\hat{Y}_{O} = \frac{y_{O}}{y} \hat{Y}$$
 and  $\hat{R}_{O} = \frac{y_{O}}{y} \hat{R}$ .

To estimate, for example, the incidence of hospitalized pesticide poisonings over both high and low usage levels in EPA Region I in 1973, authors proceeded as follows:

For the  $u^{\underline{th}}$  pesticide use class within the  $s^{\underline{th}}$  State in Region I estimate  $\hat{Y}_{1su}$  and obtain  $V[\hat{Y}_{1su}]$ . Calling  $x_1$ . the total admissions of all general care hospitals in Region I, and  $n_{1\cdot u}$  the number of sampled hospitals in the  $u^{\underline{th}}$  pesticide use class within Region I, estimate the incidence for Region I in terms of  $X_1$ . as

$$\hat{Y}_1 \dots = \sum_{u=1}^{2} \sum_{s=1}^{n_1 \dots u} \hat{Y}_{1su}$$

which has variance

$$V[\hat{Y}_{1}..] = \sum_{u=1}^{2} \sum_{s=2}^{n_{1.u}} V[\hat{Y}_{1su}].$$

Per 100,000 admissions the estimate becomes

$$\hat{R_1} \dots = \frac{100,000}{X_1} \quad \hat{Y_1} \dots$$

which has variance

$$V[\hat{R}_{1..}] = (\frac{100,000}{X_{1..}})^2 V[\hat{Y}_{1..}].$$

With y acute pesticide poisonings observed in Region I, of which  $y_I$  were intentional and  $y_A$  involved children under the age of 5 years, then the estimates, in terms of  $X_I$ , are

$$\hat{Y}_{I} = \frac{y_{I}}{y} \hat{Y}_{1}$$
. intentional poisonings

and

$$\hat{Y}_A = \frac{y_A}{y} \hat{Y}_1$$
., poisonings, both intentional and accidental, involving children under five years.

In terms of 100,000 admissions the estimates are, respectively,

$$\hat{R}_{I} = \frac{y_{I}}{y} \hat{R}_{I}$$
 and  $\hat{R}_{A} = \frac{y_{A}}{y} \hat{R}_{I}$ .

The above procedure presumes knowledge of the admissions of each sampled hospital and the total admissions of all hospitals in each use level for every State; for 1973 these are known. The total number of admissions to all hospitals in the United States was available.

For 1972 and 1971, only, incidences were estimated as described above except that the total admissions for both the sampled hospitals and all hospitals in the subpopulation within each use class of each State were estimated as their 1973 values times a constant. The constant K was the total national admissions for the year in question divided by the total national 1973 admissions. For example, using  $x_{73}$  and  $x_{73}$  to denote total admissions for the sampled hospitals and all hospitals in the Maine subpopulation exposed to high pesticide use in 1973, authors estimate  $x_{rsu}$  and  $x_{rsu}$  for that substratum for 1972 as  $\hat{x}_{rsu} = x_{73} x_{rsu} = x_{73} x_{rsu} = x_{73} x_{rsu}$ . If y is the number of cases seen in that substratum in 1972, the incidences are  $\hat{R} = (y/\hat{x}_{rsu})$  100,000 and  $\hat{Y} = y\hat{x}_{rsu}/\hat{x}_{rsu}$ .

No estimate of variance is made. This procedure assumes that the rate of change in admissions is constant among all hospitals in the sense that the ratio of the admissions of sampled hospitals to the admissions of the subpopulation hopsitals within every pesticide use class of every State remains approximately constant from year to year. If this assumption does not hold then the estimates will be biased.

A more detailed discussion of such ratio estimates in stratified random sampling appears 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" (12). 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.
- A good measure of size, namely, number of admissions, was available for setting up the strata.

"Nonresponse" refers to the failure to measure some of the units in the sample. With continuous data, any sizable proportion of nonresponse usually makes it impossible to assign useful confidence limits to the sample results. Most nonresponse in this study were expected to fall into one of three categories.

- 1. Inability to answer due to change in hospital codes.
- 2. Unavailability of hospital administrator or record librarian.
- 3. Refusal by administrators of admission to hospital records due to confidentiality.

It was also recognized that a nonresponse might arise because of inadequate coding of hospital records. Although the majority of hospitals use the PAS, ICDA, or H-ICDA codes, occasionally a hospital uses a code designed by and for a specific individual maintaining the records. When that person leaves the job, the records cannot be retrieved. Such a situation arose on one occasion in the Colorado pre-test.

It had been anticipated that some hospital administrators would refuse access to patient's records on the basis of confidentiality or other considerations. Each administrator was notified in advance, by letter, of the week that a field epidemiologist would be in the area doing the study. A hospital which refused to reveal records was termed a nonrespondent; actually in terms of the patient records such a hospital could be considered a cluster of nonrespondents. In discussing nonresponse, it was convenient to divide the population of hospitals into two strata, the first consisting of all hospitals in which patient records were available, the second consisting of those hospitals for which patient records were not available. This division into two distinct strata was, of course, an oversimplification. In a more complete specification of the problem, one should attach to each hospital a probability representing the chance that its patient records would be available if it fell within the sample.

The survey plans did not provide information about the nonresponse stratum. This would not matter if it could be assumed that the characteristics of the nonresponse stratum are the same as those of the response stratum. To determine whether differences exist between hospitals in the two strata, a random subsample of the hospitals in the nonresponse stratum was drawn and a major effort was made to survey every hospital in the subsample. Two types of callback were conceived: a second contact with the hospital administrator either by a different field epidemiologist or

by his or her supervisor; and contact with the hospital chief of staff instead of the hospital administrator, preferably by someone other than the field epidemiologist who made the original contact.

To check the thoroughness of the field epidemiologists in abstracting patient records, investigators arranged to resample 5 percent of the total poisoning cases surveyed. Further quality control was built into the program by thoroughly instructing epidemiologists who could, in turn, instruct medical librarians to pull appropriate patient records. Epidemiologists were cautioned not to oversample and risk losing cooperation of the hospital administrators.

The training consisted of three phases: a workshop training course in Fort Collins July 23-24, 1974; an initial field trial in late August; and a second training course in Iowa City September 5-6, 1974. The second training course provided an opportunity to identify and discuss some problems in the execution of the field trial.

To control the quality of these data, selected staff members at the Colorado Pesticide Center were trained to edit and code, the completed data sheet.

Using the notation presented above, the estimate of the total number of acute pesticide poisonings can be written in the form

$$\hat{Y} = \sum_{\Sigma}^{50} \sum_{\Sigma}^{n_{\hat{1}}} \hat{Y}$$

$$i=1 \quad j=1 \quad ij$$

where  $\hat{Y}_{ij}$  is the estimated total number of hospitalized acute pesticide poisonings in the  $j\frac{th}{}$  usage level in the  $i\frac{th}{}$  State and the  $n_i$  equals 1 or 2, depending on the State; that is,

$$\hat{Y}_{ij} = \frac{y_{ij}}{x_{ii}} X_{ij}$$

where  $y_{ij}$ ,  $x_{ij}$ , and  $X_{ij}$  have been defined in the above example. If  $n_{ij}$  and  $N_{ij}$  denote the sample and population, respectively, number of hospitals in the  $j\frac{th}{}$  usage level in the  $i\frac{th}{}$  State, then the variance of the estimate  $\hat{Y}$  is approximately

$$Var(\hat{Y}) = \sum_{i=1}^{50} \sum_{j=1}^{n_i} \frac{N_i(N_i - n_j)}{n_{ij}} S^2_{d_{ij}}$$

where  $S_{d_{ij}}^2$  is the approximate variance of  $\hat{Y}_{ij}$ :

$$S_{d_{ij}}^2 = (S_{y_{ij}}^2 + p_{kj}^2 S_{x_{ij}}^2 - 2p_{ij} \rho_{ij} S_{y_{ij}} S_{x_{ij}}).$$

In the above formula, p denotes the true population ratio  $\frac{Y}{X}$ , p denotes the correlation coefficient between X and Y, and Sy and S\_X^2 denote the population variances of Y and X, respectively.

With a constant cost per stratum, the variance of  $\hat{Y}$  can be minimized by choosing sample sizes  $n_{ij}$  proportional to  $N_{ij}$   $S_{d}$ . In planning a sample, the allocation with a ratio estimate such as that defined above is extremely perplexing since it is usually difficult to speculate about the values of  $S_{d}$ . If  $S_{d}$  remains constant over all strata, then  $n_{ij}$  can be chosen proportional to  $N_{ij}$ , resulting in a constant rate of sampling for all strata. However, because the investigators believed that  $S_{d}$  could reasonably be higher in the high use areas and because followup studies might be conducted eventually, sampling was heavier in the high pesticide usage areas.

In the ideal survey sampling plan, the sample size should be chosen not only to satisfy cost constraints, as in the present plan, but also to meet requirements for obtaining the desired precision of the estimate. For example, an estimate in error by no more than 100 cases might be desired. This problem can be solved easily when certain population values, i.e., p,  $\rho$ ,  $S_x$ ,  $S_y$  are known; when these population values are not known, as in the case at hand, no solution is possible. However, there are two-stage procedures, such as that of Stein (13), for determining the sample size required for a specified degree of precision on the basis of a preliminary sample. The pilot test indicated that initial sample sizes would meet requirements for precision of the estimates.

Estimates in Tables 49 and following were developed from the total numbers of observed cases by each selected parameter identified in the table heading within each State or region, rather than from individual strata within each State. Therefore, the sums of the regional or State estimates in these tables differ slightly from sums in preceding tables.

# NATIONAL ESTIMATES OF ACUTE HOSPITALIZED PESTICIDE POISONINGS, INCIDENCE, AND MORTALITY RATES, 1971-73.

### CHAPTER IV RESULTS

On the basis of the estimation procedure described in Chapter III, the estimated number of pesticide poisonings admitted to general care hospitals and the incidence rates per 100,000 hospital admissions were developed for the Nation, Environmental Protection Agency Regions, and each of the 50 States and the District of Columbia. Mortality numbers and rates were also developed for the United States and for EPA Regions.

Henceforth in this report estimated numbers shall refer to numbers of hospital admitted pesticide poisonings and deaths, and incidence rates shall refer to cases of pesticide poisonings admitted to hospitals per 100,000 hospital admissions.

### Poisonings and Rates by Nation, EPA Region, and State

The estimated number of hospital-admitted pesticide poisonings in the United States in 1971-73 was 8,248. Poisonings rose from 2,596 in 1971, and 2,821 in 1972, to 2,831 in 1973, an increase of 235 cases or 9 percent during the three-year period. Incidence rates ranged from 8.2 cases per 100,000 hospital admissions in 1971 to 8.5 in 1973.

In 1971 the estimated number of poisonings ranged from 39 in EPA Region I to 588 in Region IV. Incidence rates ranged from 1.6 in Region II, to 17.1 in Region IX.

In 1972 the estimated number of poisonings ranged from 41 in EPA Region I to 628 in Region IV. Incidence rates ranged from 2.4 in Regions I and II to 15.3 in Region IX.

In 1973 the estimated number of poisonings ranged from 77 in Region I to 547 in Region IX. Incidence rates ranged from 2.2 in Region II to 15.5 in Region IX.

Data from 1971 to 1973 in Regions I, V, VII, VIII, and X clearly indicate an increase in the numbers of pesticide poisonings admitted to general-care hospitals. Three regions (IV, VI, and IX) have consistently maintained incidence rates greater than the average rate of the ten regions. Six of the regions (I, II, V, VII, VIII, and X) had higher incidence rates in 1973 than in 1971.

Among the 50 States, California had the highest estimated number of pesticide poisonings in 1971, 1972, and 1973; respective figures were 488, 438, and 462. Delaware, the District of Columbia, and Idaho had the highest rates of pesticide poisoning admissions in 1971-73. Respective incidence rates per 100,000 hospital admissions were 57.5, 79.7, and 48.4. Poisonings and Rates by Cause of Exposure

Nationally, the estimated numbers of pesticide poisonings admitted to general-care hospitals as a result of occupational exposure increased from 811 in 1971 to 855 in 1973. Admissions of non-occupational pesticide poisonings increased from 1,295 in 1971 to 1,446 in 1973. Admissions of intentional pesticide poisonings increased from 475 in 1971 to 516 in 1973. However, incidence rates of pesticide poisonings per 100,000 hospital admissions in the occupationally exposed was 2.5 in 1971, and remained at that figure in 1973. Incidence rates of the nonoccupationally and intentionally exposed groups were not significantly different in 1973 from those of 1971.

In 1971 Region IV had an estimated 332 occupationally related pesticide poisonings and Region VI had an incidence rate of 6.6 cases per 100,000 hospital addmissions. These were the highest rates in the regions. The estimated number of occupationally related pesticide poisonings admitted to general-care hospitals by States in 1971 was highest in Texas, which had 208. Idaho had the highest incidence rate: 18.2 cases per 100,000 hospital admissions. California had 239 estimated nonoccupational pesticide poisonings, the highest among the States. Delaware had the highest incidence rate for this group: 38.3 cases per 100,000 hospital admissions.

In 1972, Region IV had an estimated 225 occupationally related pesticide poisonings and an incidence rate of 4.2 cases per 100,000 hospital admissions, the highest among the regions. Region V, with an estimated number of 367 nonoccupationally exposed pesticide poisonings, was highest among the regions, Region III had the highest incidence rate: 7.9 cases per 100,000 hospital admissions. Georgia had an estimated 98 occupationally related pesticide poisonings, the highest among the States. Delaware had the highest incidence rate: 56.5 cases per 100,000 hospital admissions. California, with an estimated 231 nonoccupationally related pesticides poisonings, was the highest among the States, and the District of Columbia had the highest incidence rate: 68.3 cases per 100,000 hospital admissions.

In 1973 Region IV had an estimated 296 occupationally related pesticide poisonings, the highest among the regions, and Region VI had the highest incidence rate: 5.8 cases per 100,000 hospital admissions.

Region V, with an estimated number of 364 nonoccupationally exposed pesticide

poisonings, was highest among the regions: Region IX had the highest incidence rate: 9.0 cases per 100,000 hospital admissions. Texas had an estimated 163 occupationally related pesticide poisonings, the highest among the States, and Idaho had the highest incidence rate: 31.2 cases per 100,000 hospital admissions. California had an estimated 278 nonoccupationally related pesticide poisonings, the highest among the States, and the District of Columbia had the highest incidence rate: 22.0 cases per 100,000 hospital admissions.

In 1971 skilled and unskilled laborers had an estimated 210 admitted pesticide poisonings, the highest rate of any occupationally-exposed group. Region VI had an estimated 132 admitted pesticide poisonings in this group, the highest of any region. Region VI had the highest incidence rate among skilled and unskilled laborers: 3.8 cases per 100,000 hospital admissions.

In 1972 farmers had an estimated 173 hospital-admitted pesticide poisonings, the highest rate of any occupationally-exposed group. Region IV had an estimated 69 admitted pesticide poisonings, the highest among the regions. Region IV also had the highest incidence rate among farmers: 1.3 cases per 100,000 hospital admissions.

In 1973 farmers had an estimated 227 hospital-admitted pesticide poisonings, once again the highest of any occupationally-exposed group. Region IV had an estimated 72 admitted pesticide poisonings in this group highest among the regions. Region VIII had the highest incidence rate among the hospital-admitted farmers, however, with 3.0 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 1971-73.

In 1971 organophosphates were involved in an estimated 572 such poisonings; chlorinated hydrocarbons were estimated to be responsible for only 79 cases. Region IV had an estimated 242 organophosphate poisonings, highest among the regions. Region VI had the highest incidence rate: 5.3 cases per 100,000 hospital admissions.

In 1972 organophosphates were involved in an estimated 454 occupationally related hospital-admitted pesticide poisonings; chlorinated hydrocarbons were estimated to be responsible for only 102 such cases. Region IV, with an estimated 174 organophosphate poisonings, and an incidence rate of 3.1 cases per 100,000 admissions, was again high among all EPA regions.

In 1973 organophosphates contributed to an estimated 544 occupationally related hospital-admitted pesticide poisonings; chlorinated hydrocarbons were estimated to be responsible for only 140 such cases.

Region IV had an estimated 174 organophosphate poisonings, highest of all EPA regions. Region VI had the highest incidence rate: 4.2 cases per 100,000 hospital admissions.

## Poisonings and Rates Among Children 0-4 Years

In 1971 an estimated 995 children 0-4 years of age were admitted to hospitals as a result of pesticide poisonings. In Region V an estimated 284 children were admitted to hospitals, more than in any other region. Region I had only an estimated 21 children admitted to hospitals, lowest among all regions for children under 5 years. Region IX had an incidence rate of 5.9 cases per 100,000 hospital admissions, highest among all regions. Highest rates among States were California, where an estimated 198 children were admitted to hospitals because of pesticide poisoning, and Delaware, which had an incidence rate of 36.5 cases per 100,000 hospital admissions.

In 1972 an estimated 1,231 children under 5 years of age were admitted to hospitals as a result of pesticide poisonings. In Region V , an estimated 309 children were admitted to hospitals, more than in any other region. Region VIII had an estimated 11 children admitted to hospitals, fewer than in any other region. Regions III and IX had an incidence rate of 5.4 cases per 100,000 admissions, the highest among all regions. California, where an estimated 172 children were admitted to hospitals, and the District of Columbia, which had an incidence rate of 66.1 cases per 100,000 hospital admissions were highest among the States.

In 1973 an estimated 1,001 children 0-4 years of age were admitted to hospitals as a result of pesticide poisonings. Once again Region V, with an estimated 286 children admitted, was highest among all regions. Region I, with an estimated six children admitted, was lowest. Region IX had an incidence rate of 7.3 cases per 100,000 hospital admissions, higher than any other region. California, where an estimated 238 children were admitted to hospitals, and the District of Columbia, which had an incidence rate of 16.5 cases per 100,000 admissions were high among States.

## Poisoning Deaths by Cause of Exposure and Age

Approximately 49 hospitalized individuals died in 1971 because of pesticide poisonings. Eight of these were occupationally related deaths in Region VI. Region IV, where 17 nonoccupationally related deaths occured, led all regions.

It is estimated that 92 persons died in hospitals as a result of pesticide poisonings in 1972. Region IV, with an estimated eight occupationally related deaths, and Region VI, with 16 nonoccupationally related deaths were high among the regions.

An estimated 54 hospital-admitted deaths occurred in 1973 as a result of pesticide poisonings. Approximately eight of these were occupationally-exposed workers in Region VI; another eight were non-occupationally exposed persons in Region V. These two were high among the regions.

In 1971-73 among occupationally-exposed workers, eight deaths were estimated in the 25-32 year age group, and another eight in the 55-64 year group. During the same three-year period 16 deaths were estimated in the nonoccupational hospital-admitted pesticide poisonings among children under 10 years.

TABLE 1
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS IN THE UNITED STATES IN 1971, 1972, AND 1973.

	ESTIMATED NUMBER	RATES	
1971	2596	8.2	
1972	2821	8.8	
1973	2831	8.5	

TABLE 2
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1971.

EPA REGION	ESTIMATED NUMBER	RATES	
I	39	2.4	
II	55	1.6	
III	236	6.9	
IV	588	10.9	
V	383	5.6	
VI	458	12.8	
VII	129	6.5	
VIII	60	5.9	
IX	574	17.1	
X	74	7.4	
TOTAL	2596	8.2	
	III III III III III IX X	I       39         III       55         III       236         IV       588         V       383         VI       458         VII       129         VIII       60         IX       574         X       74	I       39       2.4         II       55       1.6         III       236       6.9         IV       588       10.9         V       383       5.6         VI       458       12.8         VII       129       6.5         VIII       60       5.9         IX       574       17.1         X       74       7.4

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TABLE 3
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1972.

EPA REGION	ESTIMATED NUMBER	RATES
I	41	2.4
II	85	2.4
III	355	10.2
IV	628	11.4
<b>V</b>	444	6.4
VI	400	11.0
VII	153	7.5
VIII	102	10.0
IX	523	15.3
X	90	8.8
TOTAL	2821	8.8

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TABLE 4

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1973.

EPA REGION	ESTIMATED NUMBER	RATES
I	77	4.4
II	80	2.2
III	220	6.1
IV	538	9.4
V	449	6.3
VI	458	12.2
VII	203	9.8
VIII	113	10.7
IX	547	15.5
X	146	13.5
TOTAL	2831	8.5

TABLE 5
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION I AND STATES IN 1971, 1972, AND 1973.

		071		972	1973	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	39	2.4	41	2.4	77	4.4
<u>ω</u> MAINE	0	0	22	12.9	43	25.2
NEW HAMPSHIRE	0	0	0	0	0	0
VERMONT	0	0	0	0	0	0
MASSACHUSETTS	13	1.5	19	2.3	19	2.3
RHODE ISLAND	0	0	0	0	0	0
CONNECTICUT	26	6.2	0	0	15	3.7

TABLE 6
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION II AND STATES, IN 1971, 1972, AND 1973.

		71		972	197	73
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	55	1.6	85	2.4	80	2.2
NEW YORK	34	1.2	34	1.3	45	1.7
NEW JERSEY	21	2.2	51	5.3	35	15.3

TABLE 7
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION III AND STATES, IN 1971, 1972, AND 1973.

ž.		71		72		73
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	236	6.9	355	10.2	220	6.1
PENNSYLVANIA	105	6.0	85	4.8	90	5.0
DELAWARE	41	57.5	41	56.5	14	18.2
MARYLAND	26	5.7	52	11.2	32	6.8
DISTRICT OF COLUMBIA	42	23.2	147	79.7	52	27.5
VIRGINIA	16	2.2	16	2.2	32	4.5
WEST VIRGINIA	6	1.5	14	3.9	0	0

TABLE 8

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGIONIV AND STATES, IN 1971, 1972, AND 1973.

		971		972		73
	ESTIMATED NUMBER	RATE	NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	588	10.9	628	11.4	538	9.4
NORTH CAROLINA	108	14.3	100	13.1	94	11.8
SOUTH CAROLINA	17	4.0	25	5.9	42	9.6
GEORGIA	127	16.9	127	16.6	120	15.2
FLORIDA	195	15.9	73	5.9	114	8.8
KENTUCKY	39	7.0	98	17.3	27	4.5
TENNESSEE	42	5.9	91	12.5	77	10.3
ALABAMA	39	6.6	62	10.4	54	8.8
MISSISSIPPI	21	5.2	52	12.8	10	2.5

TABLE 9
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION V AND STATES, IN 1971, 1972, AND 1973.

		71		972		73
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	383	5.6	444	6.4	449	6.3
OHIO	54	3.2	76	4.5	90	5.4
INDIANA	11	1.3	21	2.6	42	5.1
ILLINOIS	152	8.1	191	10.3	201	10.7
MICHIGAN	91	6.6	78	5.6	41	3.0
WISCONSIN	35	4.7	44	5.9	41	5.5
MINNESOTA	40	5.9	34	5.1	34	5.0

TABLE 10
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VI AND STATES, IN 1971, 1972, AND 1973.

		1971		1972		1973
	ESTIMA NUMBE		ESTIMA NUMBE		ESTIMA NUMBE	
REGION VI	458	12.8	400	11.0	458	12.2
ARKANSAS	7	1.9	28	7.6	0	0
LOUISIANA	38	6.1	48	7.5	57	8.7
OKLAHOMA	38	8.0	28	6.0	37	8.0
TEXAS	355	17.0	256	12.4	353	17.1
NEW MEXIC	20	11.7	40	22.9	10	5.5

TABLE 11
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VII AND STATES, IN 1971, 1972, AND 1973.

		19 ECTIMATED	71		72	197	<u>'3</u>
		ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
	REGION VII	129	6.5	153	7.5	203	9.8
37	IOWA	30	5.7	58	11.0	55	10.4
7	MISSOURI	64	7.5	32	3.8	51	6.2
	NEBRASKA	6	2.1	12	4.2	34	11.9
	KANSAS	29	6.9	51	12.0	63	14.8

TABLE 12
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VIII AND STATES, IN 1971, 1972, AND 1973.

		971		972	197	73	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION VIII	60	5.9	102	10.0	113	10.7	
NORTH DAKOTA	7	5.7	14	11.2	14	10.8	
SOUTH DAKOTA	0	0	5	3.9	8	6.2	
MONTANA	11	7.7	0	0	0	0	
WYOMING	0	0	0	0	0	0	
COLORADO	33	7.5	69	16.9	79	18.2	
UTAH	9	5.6	14	8.4	12	7.3	

TABLE 13
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION IX AND STATES, IN 1971, 1972, AND 1973.

	1971		19:	72	197	3
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	574	17.1	523	15.3	547	15.5
မွ CALIFORNIA	488	16.1	438	14.4	462	15.2
, ARIZONA	61	18.1	79	23.5	73	21.7
NEVADA	0	0	0	0	0	0
HAWAII	25	35.6	6	8.7	12	16.9

TABLE 14
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION X AND STATES, IN 1971, 1972, AND 1973.

		971		1972		73	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION X	74	7.4	90	8.8	146	13.5	
IDAHO	21	17.3	17	13.8	58	48.4	
WASHINGTON	30	5.5	22	4.2	53	9.9	
OREGON	23	6.9	51	15.1	35	9.2	
ALASKA	0	0	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 1971, 1972, AND 1973.

,		971		972		73
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
OCCUPATIONAL	811	2.5	629	1.9	855	2.5
NON-OCCUPATIONAL	1295	4.1	1720	5.4	1446	4.3
INTENTIONAL	475	1.6	425	1.3	516	1.6
UNCLASSIFIED	15		47		14	
TOTAL	2596	8.2	2821	8.8	2831	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 1971.

	OCCUPA	TIONAL	NON-OCCUPA	TIONAL	INTENTIO	ONAL
EPA REGION	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER .	RATE	ESTIMATED NUMBER	RATE
[	6	0.5	28	1.4	4	0.5
II	0	0.0	32	1.0	21	0.6
III	14	0.3	197	5.7	12	0.3
IV	332	6.1	212	3.9	43	0.8
ı	27	0.4	300	4.4	55	0.8
'I	247	6.6	156	4.5	55	1.7
/II	43	1.9	66	3.7	21	0.9
<b>'</b> 111	28	3.0	28	2.0	5	1.0
X	85	2.1	251	7.5	238	7.5
	29	2.7	25	2.7	21	2.0
J.S. TOTAL	811	2.5	1295	4.1	475	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 1971.

	OCCUPA <sup>-</sup>	TIONAL	NON-OCCUPA	TIONAL	INTENTIONAL	
REGION AND STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	6	0.5	28	1.4	4	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	0	0.0	0	0.0
MASSACHUSETTS	6	0.7	7	0.9	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	21	5.4	4	1.1

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 1971.

	<u>OCCUPA</u>	OCCUPATIONAL		TIONAL	INTENTIONAL	
REGION AND STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	0	0.0	32	1.0	21	0.6
NEW YORK	0	0.0	22	0.9	11	0.5
NEW JERSEY	0	0.0	10	1.1	10	1.1

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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 1971.

•	OCCUPAT	OCCUPATIONAL		TIONAL .	INTENTI	ONAL
REGION AND STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	14	0.3	197	5.7	12	0.3
PENNSYLVANIA	0	0.0	93	5.5	12	0.7
DELAWARE	14	19.2	27	38.3	0	0.0
MARYLAND	0	0.0	13	2.9	0	0.0
DISTRICT OF COLUMBIA	0	0.0	42	23.2	0	0.0
VIRGINIA	0	0.0	16	2.3	0	0.0
WEST VIRGINIA	0	0.0	6	1.6	0	0.0

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 IN 1971.

	OCCUPA	TIONAL	NON-OCCUPA	TIONAL	INTENTIONAL	
REGION AND STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	332	6.1	212	3.9	43	0.8
NORTH CAROLINA	65	8.6	29	3.8	14	1.9
SOUTH CAROLINA	17	4.0	0	0.0	0	0.0
GEORGIA	84	11.3	35	4.7	7	0.9
FLORIDA	130	10.6	57	4.6	8	0.7
KENTUCKY	7	1.2	26	4.7	7	1.2
TENNESSEE	14	2.0	21	2.9	7	1.0
ALABAMA	15	2.6	23	4.0	0	0.0
MISSISSIPPI	0	0.0	21	5.2	0	0.0

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 1971.

	OCCUPATIONAL		NON-OCCUPA	TIONAL	INTENTIONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	27	0.4	300	4.4	55	0.8
OHIO	0	0.0	45	2.8	9	0.6
INDÍANA	0	0.0	11	1.4	0	0.0
ILLINOIS	21	1.2	101	5.7	29	1.6
MICHIGAN	6	0.5	74	5.6	11	0.8
WISCONSIN	0	0.0	29	4.0	6	0.9
MINNESOTA	0	0.0	40	6.1	0	0.0

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 1971.

		OCCUPAT	OCCUPATIONAL		NON-OCCUPATIONAL		DNAL
	REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
;	REGION VI	247	6.6	156	4.5	55	1.7
	ARKANSAS	0	0.0	7	2.0	0	0.0
	LOUISIANA	10	1.5	29	4.6	0	0.0
	OKLAHOMA	19	4.2	9	2.1	9	2.1
	TEXAS	208	10.5	101	5.1	46	2.3
	NEW MEXICO	10	5.8	10	5.8	0	0.0

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 1971.

	OCCUPATIONAL		NON-OCCUPA	NON-OCCUPATIONAL		CONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VII	43	1.9	66	3.7	21	0.9
IOWA	0	0.0	20	4.0	10	2.0
MISSOURI	43	5.3	11	1.3	11	1.3
NEBRASKA	0	0.0	6	2.2	0	0.0
KANSAS	0	0.0	29	7.3	0	0.0

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 1971.

	OCCUPAT	OCCUPATIONAL		TIONAL	INTENTIO	ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE .	ESTIMATED NUMBER	RATE
REGION VIII	28	3.0	28	2.0	5	1.0
NORTH DAKOTA	7	5.7	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0
MONTANA	11	8.1	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	10	2.4	23	5.6	0	0.0
UTAH	0	0.0	5	3.0	5	3.0

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 1971.

REGION & STATE	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	85	2.1	251	7.5	238	7.5
CALIFORNIA	30	1.1	239	8.3	219	6.4
ARIŹONA	55	17.1	6	1.9	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	6	8.9	19	26.7

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 1971.

	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	29	2.7	25	2.7	21	2.0
IDAHO	21	18.2	0	0.0	0	0.0
. WASHINGTON	8	1.5	13	2.6	9	1.8
OREGON	0	0.0	12	3.7	12	3.7
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 1972.

EPA REGION	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	0	0.0	35	1.9	6	0.5
II	0	0.0	68	2.0	16	0.5
III	41	0.8	267	7.9	34	1.0
IV	225	4.2	303	5.4	70	1.3
V	26	0.4	367	5.3	53	0.7
VI	140	3.8	235	6.5	26	0.7
VII	39	2.1	97	4.6	17	0.8
IIIV	35	3.3	44	5.5	23	7.7
IX	97	2.8	249	7.0	171	5.3
x	26	2.2	55	5.9	9	0.7
U.S. TOTAL	629	1.9	1720	5.4	425	1.3

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 1972.

	OCCUPATI	ONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE .	ESTIMATED NUMBER	RATE
REGION I	0	0.0	35	1.9	6	0.5
MAINE	0	0.0	22	12.0	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	13	1.6	6	0.7
RHODE ISLAND	0	0.0	0	0.0	0	0.0
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 1972.

•	OCCUPAT:	IONAL	NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	0	0.0	68	2.0	16	0.5
NEW YORK	0	0.0	22	0.8	11	0.5
NEW JERSEY	0	0.0	46	5.0	5	0.5

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 1972.

	OCCUPAT	IONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE .	ESTIMATED NUMBER	RATE	
REGION III	41	0.8	267	7.9	34	1.0	
PENNSYLVANIA	0	0.0	85	5.0	0	0.0	
DELAWARE	41	56.5	0	0.0	0	0.0	
MARYLAND	0	0.0	26	5.6	13	2.8	
DISTRICT OF COLUMBIA	0	0.0	126	<b>68.</b> 3	21	11.4	
VIRGINIA	0	0.0	16	2.3	0	0.0	
WEST VIRGINIA	0	0.0	14	4.0	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 1972.

	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	225	4.2	303	5.4	70	1.3
NORTH CAROLINA	14	1.9	57	7.5	0	0.0
SOUTH CAROLINA	8	2.0	17	4.0	0	0.0
GEORGIA	98	12.9	21	2.8	7	0.9
FLORIDA	57	4.6	16	1.3	0	0.0
KENTUCKY	26	4.6	52	9.2	20	3.5
TENNESSEE	14	1.9	49	6.7	28	3.9
ALABAMA	8	1.3	39	6.5	15	2.6
MISSISSIPPI	0	0.0	52	12.8	0	0.0

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 1972.

	OCCUPAT	OCCUPATIONAL		TIONAL	INTENTIONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE ·	ESTIMATED NUMBER	RATE
REGION V	26	0.4	367	5.3	53	0.7
OHIO	0	0.0	58	3.5	18	1.1
INDIANA	0	0.0	11	1.3	11	1.3
ILLINOIS	21	1.1	164	9.1	7	0.4
MICHIGAN	0	0.0	67	5.0	11	0.8
WISCONSIN	0	0.0	38	5.3	6	0.9
MINNESOTA	5	0.9	29	4.4	0	0.0

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 1972.

	OCCUPAT	OCCUPATIONAL		NON-OCCUPATIONAL		ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	140	3.8	235	6.5	26	0.7
ARKANSAS	0	0.0	28	7.9	0	0.0
LOUISIANA	19	3.0	29	4.5	0	0.0
OKLAHOMA	9	2.1	19	4.1	0	0.0
TEXAS	92	4.6	149	7.4	16	0.8
NEW MEXICO	20	11.4	10	5.7	10	5.7

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 1972.

		OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
REGION	& STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
S REGION	VII	39	2.1	97	4.6	17	0.8
IOWA		18	3.6	30	5.9	10	2.0
MISSO	OURI	0	0.0	32	3.9	0	0.0
NEBRA	<b>ISKA</b>	6	2.1	6	2.1	0	0.0
KANSA	IS	15	3.5	29	7.1	7	1.8

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 1972.

•	OCCUPATIONAL		NON-OCCUPA	NON-OCCUPATIONAL		ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	35	3.3	44	5.5	23	1.1
NORTH DAKOTA	7	5.6	7	5.6	0	0.0
SOUTH DAKOTA	0	0.0	5	4.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	23	5.5	23	5.4	23	5.5
UTAH	5	2.9	9	5.8	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 1972.

				<del></del>			
	OCCUPAT	OCCUPATIONAL		NON-OCCUPATIONAL		ONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION IX	97	2.8	249	7.0	171	5.3	
CALIFORNIA	48	1.7	231	7.9	159	5.7	
ARIZONA	49	14.9	18	5.6	6	1.9	
NEVADA	0	0.0	0	0.0	0	0.0	
HAWAII	0	0.0	0	0.0	6	8.7	

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 1972.

•	OCCUPATI	OCCUPATIONAL		NON-OCCUPATIONAL		ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	26	2.2	55	5.9	9	0.7
IDAHO	17	14.3	0	0.0	0	0.0
WASHINGTON	0	0.0	22	4.2	0	0.0
OREGON	9	2.8	33	10.0	9	2.8
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 1973.

W 6	OCCUPAT	OCCUPATIONAL		TIONAL	INTENT	<u>ronal</u>
EPA REGION	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATÉ	ESTIMATED NUMBER	RATE
I	43	1.9	28	1.9	6	0.5
II	20	0.7	60	1.5	0	0.0
III	16	0.5	151	4.0	53	1.6
IV	296	5.2	144	2,5	98	1.7
V	45	0.6	364	5.0	40	0.6
VI	221	5.8	127	3.6	102	2.6
VII	26	1.5	133	6.4	44	1.9
VIII	31	4.7	59	4.7	23	1.2
IX	107	2.3	302	9.0	138	4.2
X	50	4.1	78	7.4	12	1.4
U.S. TOTAL	855	2.5	1446	4.3	516	1.6

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 1973.

	OCCUPAT	IONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL
REGION & STATE	ESTIMATED Number	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	43	1.9	28	1.9	6	0.5
MAINE	32	18.7	11	6.5	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	13	1.6	6	0.7
RHODE ISLAND	0	0.0	0	0.0	0	0.0
CONNECTICUT	11	2.6	4	1.1	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 1973.

		OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
	REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
e S	REGION II	20	0.7	60	1.5	0	0.0
	NEW YORK	0	0.0	45	1.7	0	0.0
	NEW JERSEY	20	2.1	15	1.6	0	0.0

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 1973.

	OCCUPATIONAL		NON-OCCU	PATIONAL	INTENTI	ONAL
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	16	0.5	151	4.0	53	1.6
PENNSYLVANIA	0	0.0	76	4.2	14	0.8
DELAWARE	0	0.0	14	18.2	0	0.0
MARYLAND	0	0.0	19	4.1	13	2.7
DISTRICT OF COLUMBIA	0	0.0	42	22.0	10	5.0
VIRGINIA	16	2.3	0	0.0	16	2.3
WEST VIRGINIA	0	0.0	• 0	0.0	0	0.0

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 1973.

	OCCUPAT	IONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL .
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	<b>RATE</b>	ESTIMATED NUMBER	RATE
REGION IV	296	5.2	144	2.5	98	1.7
NORTH CAROLINA	72	9.1	22	2.7	0	0.0
SOUTH CAROLINA	17	3.8	17	3.8	8	1.9
GEORGIA	113	14.3	0	0.0	7	0.9
FLORIDA	65	5.0	33	2.5	16	1.3
KENTUCKY	7	1.1	13	2.2	7	1.1
TENNESSEE	7	0.9	28	3.7	42	5.6
ALABAMA	15	2.5	31	5.0	8	1.3
MISSISSIPPI	0	0.0	0	0.0	10	2.6

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 1973.

	OCCUPATIONAL		NON-OCCUPATIONAL		INTENTIONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	45	0.6	364	5.0	40	0.6
OHIO	0	0.0	74	4.4	16	1.0
INDIANA	11	1.3	31	3.8	0	0.0
ILLINOIS	28	1.5	165	8.9	8	0.4
MICHIGAN	6	0.5	35	2.5	0	0.0
WISCONSIN	0	0.0	41	5.5	0	0.0
MINNESOTA	0	0.0	18	2.6	16	2.4

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 1973.

		OCCUPAT	IONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL	
	REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
70	REGION VI	221	5.8	127	3.6	102	2.6	
	ARKANSAS	0	0.0	0	0.0	0	0.0	
	LOUISIANA	29	4.3	0	0.0	29	4.3	
	OKLAHOMA	19	3.4	9	2.0	9	2.0	
	TEXAS	163	7.8	118	5.7	64	3.1	
	NEW MEXICO	10	5.5	0	0.0	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 1973.

	OCCUPAT:	IONAL	NON-OCCUPA	TIONAL	INTENTI	ONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION VII	26	1.5	133	6.4	44	1.9	
IOWA	0	0.0	45	8.5	10	1.9	
MISSOURI	13	1.6	17	2.1	21	2.5	
NEBRASKA	6	2.1	22	7.7	6	2.1	
KANSAS	7	1.7	49	11.4	7	1.7	

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 1973.

	OCCUPAT	IONAL	NON-OCCUPA	ATIONAL	INTENTI	ONAL		
REGION & STATE	ESTIMATED NUMBER RATE		ESTIMATED NUMBER	RATE	ESTIMATED NUMBER RATE		RATE	
REGION VIII	31	4.7	59	4.7	23	1.2		
NORTH DAKOTA	14	10.8	0	0.0	0	0.0		
SOUTH DAKOTA	5	3.8	3	2.4	0	0.0		
MONTANA	0	0.0	0	0.0	0	0.0		
WYOMING	0	0.0	0	0.0	0	0.0		
COLORADO	0	0.0	56	12.9	23	5.3		
UTAH	12	7.2	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 1973.

	OCCUPAT	IONAL	NON-OCCUPA	TIONAL	INTENTIO	ONAL	
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION IX	107	2.3	302	9.0	138	4.2	
CALIFORNIA	46	1.5	278	9.2	138	4.6	
ARIZONA	55	18.5	18	7.6	0	0.0	
NEVADA	0	0.0	0	0.0	0	0.0	
HAWAII	6	8.5	6	8.5	0	0.0	

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 1973.

	OCCUPATIONAL		NON-OCCUPA	ATIONAL	INTENTIONAL		
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION X	50	4.1	78	7.4	12	1.4	
IDAHO	37	31.2	21	17.3	0	0.0	
WASHINGTON	4	0.7	40	7.4	9	1.7	
OREGON	9	2.7	17	5.0	3	0.7	
ALASKA	0	0.0	0	0.0	0	0.0	

TABLE 49
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

**PESTICIDE** 

FORMULATING PLANT

	OR PESTI MANUFACT PLAN	URING						
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	6	0.4
II	0	0.0	0	0.0	0	0.0	0	0.0
III	0	0.0	0	0.0	14	0.2	0	0.0
IV	51	0.9	55	0.9	88	1.6	48	0.8
٧	15	0.2	0	0.0	0	0.0	0	0.0
VI	8	0.2	23	0.7	18	0.5	29	0.7
VII	0	0.0	0	0.0	0	0.0	0	0.0
VIII	0	0.0	7	0.8	8	0.8	0	0.0
IX	14	0.4	56	1.5	0	0.0	0	0.0
X	8	0.7	18	1.4	0	0.0	8	0.7
U.S. TOTAL	96	0.3	159	0.5	128	0.4	91	0.3

COMMERCIAL

**APPLICATOR** 

**FARMER** 

**AGRICULTURAL** 

WORKER

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 1971.

	SKILLED OR UNSKILLED LABORER		OR SEI	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
I	0	0.0	0	0.0	O	0.0	6	0.4	
II	0	0.0	0	0.0	0	0.0	0	0.0	
III	0	0.0	0	0.0	0	0.0	14	0.2	
IV	55	0.9	14	0.3	21	0.4	332	5.8	
V	7	0.1	0	0.0	10	0.1	32	0.4	
VI	132	3.8	0	0.0	16	0.5	226	6.4	
VII	16	0.4	0	0.0	16	0.4	32	0.8	
VIII	0	0.0	0	0.0	17	0.8	32	2.4	
IX	0	0.0	0	0.0	7	0.2	77	2.1	
X	0	0.0	0	0.0	0	0.0	34	2.8	
U.S. TOTAL	210	0.6	14	0.0	87	0.2	785	2.3	

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 1971.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER	FARMER		JRAL R
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	6	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	6	0.7
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 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 1971.

	SKILLED OR LAB	UNSKILLED ORER	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	6	0.4
MAINE	0	0.0	U	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	6	0.7
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 1971.

0.0

0.0

0

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	0	0.0	0	0.0	0	0.0	0	0.0

0

0.0

0.0

0

0

0.0

0.0

0.0

0.0

0

0

**NEW YORK** 

**NEW JERSEY** 

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 1971.

			—				-		
	REGION II NEW YORK	SKILLED OR UNSKILLED LABORER		PROFESSIO OR SEI PROFESSIO	MI-	UNKNOWN OR NOT CLASSIFIED		TOTAL	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
80	REGION II	0	0.0	0	0.0	0	0.0	0	0.0
	NEW YORK	0	0.0	0	0.0	0	0.0	0	0.0
	NEW JERSEY	0	0.0	0	0.0	0	0.0	0	0.0

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 1971.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER	8	AGRICULTU WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	14	0.2	0	0.0
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	14	18.2	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

0

0

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0

0.0

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0

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0.0

0.0

0.0

0.0

0

0

VIRGINIA

WEST VIRGINIA

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 1971.

· • • • • • • • • • • • • • • • • • • •	SKILLED OR LABO	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	4I-	UNKNOWN OR NOT CLASSIFIED		TOTAL	
E	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	0	0.0	14	0.2
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	14	18.2
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	0	0.0
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	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 1971.

	,	FORMULATIN OR PESTI MANUFACT	PESTICIDE COMMERCIAL ORMULATING PLANT APPLICATOR OR PESTICIDE MANUFACTURING PLANT			FARMER		AGRICULTURAL WORKER	
83		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
	REGION IV	51	0.9	55	0.9	88	1.6	48	0.8
	NORTH CAROLINA	0	0.0	7	0.9	36	4.5	7	0.9
	SOUTH CAROLINA	0	0.0	0	0.0	8	1.9	0	0.0
	GEORGIA	28	3.6	7	0.9	28	3.6	0	0.0
	FLORIDA	16	1.3	33	2.5	8	0.6	41	3.2
	KENTUCKY	0	0.0	0	0.0	0	0.0	0	0.0
	TENNESSEE	7	0.9	0	0.0	0	0.0	0	0.0
	ALABAMA	0	0.0	8	1.3	8	1.3	0	0.0
	MISSISSIPPI	0	0.0	0	0.0	0	0.0	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 1971.

	SKILLED OR LAB	UNSKILLED ORER	OR SEI	PROFESSIONAL OR SEMI- PROFESSIONAL		OR IFIED	TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IV	55	0.9	14	0.3	21	0.4	332	5.8
NORTH CAROLINA	0	0.0	0	0.0	14	1.8	64	8.2
SOUTH CAROLINA	8	1.9	0	0.0	0	0.0	16	3.8
GEORGIA	7	0.9	14	1.8	0	0.0	84	10.7
FLORIDA	33	2.5	0	0.0	0	0.0	131	10.1
KENTUCKY	7	1.1	0	0.0	0	0.0	7	1.1
TENNESSEE	0	0.0	0	0.0	7	0.9	14	1.9
ALABAMA	0	0.0	0	0.0	0	0.0	16	2.5
MISSISSIPPI	0	0.0	0	0.0	0	0.0	0	0.0

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 1971.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERO APPLICA	APPLICATOR		FARMER		Jral R
85		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
	REGION V	15	0.2	0	0.0	0	0.0	0	0.0
	OHIO	0	0.0	0	0.0	0	0.0	0	0.0
	INDIANA	0	0.0	. 0	0.0	0	0.0	0	0.0
	ILLINOIS	15	0.7	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	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 1971.

SKILLED OR UNSKILLED LABORER  ESTIMATED DATE		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL .	
ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
7	0.1	0	0.0	10	0.1	32	0.4
0	0.0	0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0	0	0.0
7	0.3	0	0.0	0	0.0	22	1.1
0	0.0	0	0.0	10	0.7	10	0.7
0	0.0	0	0.0	0	0.0	0	0.0
0	0.0	0	0.0	0	0.0	0	0.0
	7 0 0 7 0	7 0.1 0 0.0 0 0.0 7 0.3 0 0.0 0 0.0	ESTIMATED         RATE         ESTIMATED           7         0.1         0           0         0.0         0           0         0.0         0           7         0.3         0           0         0.0         0           0         0.0         0           0         0.0         0	ESTIMATED         RATE         ESTIMATED         RATE           7         0.1         0         0.0           0         0.0         0         0.0           0         0.0         0         0.0           7         0.3         0         0.0           0         0.0         0         0.0           0         0.0         0         0.0           0         0.0         0         0.0	ESTIMATED         RATE         ESTIMATED         RATE         ESTIMATED           7         0.1         0         0.0         10           0         0.0         0         0.0         0           0         0.0         0         0.0         0           7         0.3         0         0.0         0           0         0.0         0         0.0         10           0         0.0         0         0.0         0           0         0.0         0         0.0         0	ESTIMATED         RATE         ESTIMATED         RATE         ESTIMATED         RATE           7         0.1         0         0.0         10         0.1           0         0.0         0         0.0         0         0.0           0         0.0         0         0.0         0         0.0           7         0.3         0         0.0         0         0.0           0         0.0         0         0.0         10         0.7           0         0.0         0         0.0         0         0.0	ESTIMATED         RATE         ESTIMATED         RATE         ESTIMATED         RATE         ESTIMATED           7         0.1         0         0.0         10         0.1         32           0         0.0         0         0.0         0         0.0         0           0         0.0         0         0.0         0         0.0         0           7         0.3         0         0.0         0         0.0         22           0         0.0         0         0.0         10         0.7         10           0         0.0         0         0.0         0         0.0         0

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 1971.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT			COMMERCIAL APPLICATOR		FARMER		JRAL R
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	8	0.2	23	0.7	18	0.5	29	0.7
ARKANSAS	0	0.0	0	0.0	0	0.0	0	0.0
LOUISIANA	0	0.0	0	0.0	0	0.0	10	1.4
OKLAHOMA	0	0.0	0	0.0	0	0.0	19	4.0
TEXAS	8	0.3	23	1.1	8	0.3	0	0.0
NEW MEXICO	0	0.0	0	0.0	10	5.5	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 1971.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	132	3.8	0	0.0	16	0.5	226	6.4
ARKANSAS	0	0.0	0	0.0	0	0.0	0	0.0
LOUISIANA	0	0.0	0	0.0	0	0.0	10	1.4
OKLAHOMA	0	0.0	0	0.0	0	0.0	19	4.0
TEXAS	132	6.3	0	0.0	16	0.7	187	8.9
NEW MEXICO	0	0.0	0	0.0	0	0.0	10	5.5

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 1971.

	FORMUI OR I		IDE G PLANT CIDE URING T		COMMERCIAL APPLICATOR		FARMER		IRAL
89		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
<b>•</b>	REGION VII	0	0.0	0	0.0	0	0.0	0	0.0
	IOWA	0	0.0	0	0.0	0	0.0	0	0.0
	MISSOURI	0	0.0	0	0.0	0	0.0	0	0.0
	NEBRASKA	0	0.0	0	0.0	0	0.0	0	0.0
	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 1971.

		SKILLED OR LABO	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
90	REGION VII	16	0.4	0	0.0	16	0.4	32	0.8
	IOWA	0	0.0	0	0.0	0	0.0	0	0.0
	MISSOURI	16	1.9	0	0.0	16	1.9	32	3.8
	NEBRASKA	0	0.0	0	0.0	0	0.0	0	0.0
	KANSAS	0	0.0	0	0.0	0	0.0	0	0.0

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 1971.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT

COMMERCIAL APPLICATOR

**FARMER** 

AGRICULTURAL WORKER

**ESTIMATED RATE** ESTIMATED RATE ESTIMATED RATE **ESTIMATED RATE REGION VIII** 0.0 7 0.8 8 0.8 0 0 0.0 NORTH DAKOTA 0.0 5.4 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 8 5.7 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 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 1971.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	- O	0.0	0	0.0	17	0.8	32	2.4
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	7	5.4
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	8	5.7
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	17	4.0	17	4.0
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 1971.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT			COMMERCIAL APPLICATOR		FARMER		IRAL I
93		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
	REGION IX	14	0.4	56	1.5	0	0.0	0	0.0
	CALIFORNIA	7	0.2	20	0.6	0	0.0	0	0.0
	ARIZONA	7	2.1	36	10.5	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 1971.

		SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		OR IFIED	TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	0	0.0	0	0.0	7	0.2	77	2.1
CALIFORNIA	0	0.0	0	0.0	0	0.0	27	0.8
ARIZONA	0	0.0	0	0.0	7	2.1	50	14.8
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 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 1971.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT			COMMERCIAL APPLICATOR		FARMER		RAL
95		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
O.	REGION X	8	0.7	18	1.4	0	0.0	8	0.7
	IDAHO	0	0.0	18	14.8	0	0.0	0	0.0
	WASHINGTON	8	1.4	0	0.0	0	0.0	8	1.4
	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 1971.

		SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		L
<u> </u>	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION	. O	0.0	0	0.0	0	0.0	34	2.8
IDAHO	0	0.0	0	0.0	0	0.0	18	14.8
WASHING	TON 0	0.0	0	0.0	0	0.0	16	2.9
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 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 1972.

	FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		APPLICA	APPLICATOR		TANIER		)
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	. 0	0.0	0	0.0	0	0.0	0	0.0
II	0	0.0	0	0.0	0	0.0	0	0.0
III	0	0.0	0	0.0	41	0.7	0	0.0
IV	63	1.2	24	0.4	69	1.3	55	0.9
V	15	0.2	0	0.0	7	0.1	0	0.0
VI	8	0.2	58	1.5	28	0.7	18	0.5
VII	0	0.0	0	0.0	22	1.1	7	0.4
VIII	0	0.0	17	0.8	0	0.0	12	1.5
IX	41	1.2	56	1.5	0	0.0	7	0.2
X	0	0.0	0	0.0	6	0.7	0	0.0
U.S. TOTAL	127	0.4	155	0.4	173	0.5	99	0.3

COMMERCIAL

**FARMER** 

**AGRICULTURAL** 

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 1972.

	SKILLED OR UNSKILLED LABORER		OR SEI	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		<b>L</b> .
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	0	0.0
II	0	0.0	0	0.0	0	0.0	0	0.0
III	0	0.0	0	0.0	0	0.0	41	0.7
IV	0	0.0	0	0.0	14	0.3	225	4.1
٧	0	0.0	0	0.0	6	0.1	28	0.4
VI	16	0.5	0	0.0	16	0.5	144	3.9
VII	0	0.0	0	0.0	9	0.4	38	1.9
VIII	0	0.0	0	0.0	0	0.0	29	2.3
IX	0	0.0	0	0.0	0	0.0	104	2.9
X	0	0.0	9	0.7	9	0.7	24	2.1
U.S. TOTAL	16	0.0	9	0.0	54	0.2	633	1.8

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 1972.

0

0.0

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT			COMMERCIAL APPLICATOR		FARMER <sub>,</sub>		Jral R
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION / I		0	0.0	0	0.0	0	0.0	0	0.0
MAINE		0	0.0	0	0.0	0	0.0	0	0.0
NEW HAMP	SHIRE	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
MASSACHU	ISETTS	0	0.0	0	0.0	0	0.0	0	0.0
RHODE IS	LAND	0	0.0	0	0.0	0	0.0	0	0.0

0

0.0

0

0.0

0

0.0

CONNECTICUT

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 1972.

	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	0	0.0
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

TABLE 62
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT			COMMERC APPLICA		FARMER	FARMER		RAL
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
101	REGION II	0	0.0	0	0.0	0	0.0	0	0.0
	NEW YORK	0	0.0	0	0.0	0	0.0	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 1972.

		SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
102	REGION II	0	0.0	0	0.0	0	0.0	0	0.0
	NEW YORK	0	0.0	0	0.0	0	0.0	0	0.0
	NEW JERSEY	0	0.0	0	0.0	0	0.0	0	0.0

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 1972.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	41	0.7	0	0.0
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	41	54.7	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	0	0.0	0	0.0	0	0.0	0	0.0
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

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 1972.

	SKILLED OR LAB	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	0	0.0	41	0.7
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	41	54.7
MARYLAND	0	0.0	0	0.0	0	0.0	0	0.0
DISTRICT OF COLUM	BIA O	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	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 1972.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT			COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION IV	63	1.2	24	0.4	69	1.3	55	0.9	
NORTH CAROLINA	0	0.0	0	0.0	0	0.0	0	0.0	
SOUTH CAROLINA	0	0.0	8	1.9	0	0.0	0	0.0	
GEORGIA	63	8.0	0	0.0	21	2.7	14	1.8	
FLORIDA	0	0.0	16	1.3	0	0.0	41	3.2	
KENTUCKY	0	0.0	0	0.0	26	4.5	0	0.0	
TENNESSEE	0	0.0	0	0.0	14	1.9	0	0.0	
ALABAMA	0	0.0	0	0.0	8	1.3	0	0.0	
MISSISSIPPI	0	0.0	0	0.0	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 1972.

			SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
106	REGION IV	0	0.0	0	0.0	14	0.3	225	4.1	
	NORTH CAROLINA	0	0.0	0	0.0	14	1.8	14	1.8	
	SOUTH CAROLINA	0	0.0	0	0.0	0	0.0	8	1.9	
	GEORGIA	0	0.0	0	0.0	0	0.0	98	12.5	
	FLORIDA	0	0.0	0	0.0	0	0.0	57	4.4	
	KENTUCKY	0	0.0	0	0.0	0	0.0	26	4.5	
	TENNESSEE	0	0.0	0	0.0	0	0.0	14	1.9	
	ALABAMA	0	. 0.0	0	0.0	0	0.0	8	1.3	
	MISSISSIPPI	0	0.0	0	0.0	0	0.0	0	0.0	

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 1972.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
R EGION V	15	0.2	0	0.0	7	0.1	0	0.0
OHIO	0	0.0	0	0.0	0	0.0	0	0.0
INDIANA	0	0.0	0	0.0	0.	0.0	0	0.0
ILLINOIS	15	0.7	0	0.0	7	0.3	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	0	0.0

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 1972.

		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	6	0.1	28	0.4	
OHIO	0	0.0	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	0	0.0	22	1.1	
MICHIGAN	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	6	0.8	6	0.8	

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 1972.

FORMULATING PLANT

	OR PESTI MANUFACT PLAN	URING						
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	8	0.2	58	1.5	28	0.7	18	0.5
ARKANSAS	0	0.0	0	0.0	0	0.0	0	0.0
LOUISIANA	0	0.0	19	2.8	0	0.0	0	0.0
OKLAHOMA	0	0.0	0	0.0	0	0.0	10	2.0
TEXAS	8	0.3	39	1.8	8	0.3	8	0.3
NEW MEXICO	0	0.0	0	0.0	20	11.0	0	0.0

COMMERCIAL

**APPLICATOR** 

**FARMER** 

**AGRICULTURAL** 

**WORKER** 

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 1972.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	16	0.5	0	0.0	16	0.5	144	3.9
ARKANSAS	0	0.0	0	0.0	0	0.0	0	0.0
LOUISIANA	0	0.0	0	0.0	0	0.0	19	2.8
OKLAHOMA	0	0.0	0	0.0	0	0.0	10	2.0
TEXAS	16	0.7	0	0.0	16	0.7	95	4.4
NEW MEXICO	0	0.0	0	0.0	0	0.0	20	11.0

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 1972.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	0	0.0	0	0.0	22	1.1	7	0.4
IOWA	0	0.0	0	0.0	9	1.7	0	0.0
MISSOURI	0	0.0	0	0.0	0	0.0	0	0.0
NEBRASKA	0	0.0		0.0	6	2.2	0	0.0
KANSAS	0	0.0	0	0.0	7	1.5	7	1.5

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 1972.

	SKILLED OR LAB	UNSKILLED ORER	OR SEI	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION VII	0	0.0	0	0.0	9	0.4	38	1.9	
IOWA	0	0.0	0	0.0	9	1.7	18	3.4	
MISSOURI	0	0.0	0	0.0	0	0.0	0	0.0	
NEBRASKA	0	0.0	0	0.0	0	0.0	6	2.2	
KANSAS	0	0.0	0	0.0	0	0.0	14	3.1	

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 1972.

D RATE
1.5
5.4
0.0
0.0
0.0
0.0
2.9

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 1972.

	SKILLED OR LABO	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	29	2.3
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	7	5.4
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	17	4.0
UTAH	0	0.0	0	0.0	0	0.0	5	2.9

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

	FORMULATIN OR PESTI MANUFACT PLAN	CIDE URING	APPLICA	TOR			WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	41	1.2	56	1.5	0	0.0	7	0.2
CALIFORNIA	20	0.6	20	0.6	0	0.0	7	0.2
ARIZONA	21	6.3	36	10.5	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

COMMERCIAL

**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 1972.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN NOT CLASS		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	0	0.0	0	0.0	0	0.0	104	2.9
CALIFORNIA	0	0.0	0	0.0	0	0.0	47	1.5
ARIZONA	0	0.0	0	0.0	0	0.0	57	16.9
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 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 1972.

		PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING		COMMERCIAL APPLICATOR		FARMER		RAL
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
117	REGION X	0	0.0	0	0.0	6	0.7	0	0.0
	IDAHO	0	0.0	0	0.0	0	0.0	0	0.0
	WASHINGTON	0	0.0	0	0.0	0	0.0	0	0.0
	OREGON	0	0.0	0	0.0	6	1.8	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 1972.

	·····	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
118	REGION X	0	0.0	9	0.7	9	0.7	24	2.1
•	IDAHO	0	0.0	9	7.4	9	7.4	18	14.8
	WASHINGTON	0	0.0	0	0.0	0	0.0	0	0.0
	OREGON	0	0.0	0	0.0	0	0.0	6	1.8
	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 1973.

COMMERCIAL

**APPLICATOR** 

PESTICIDE

FORMULATING PLANT

OR PESTICIDE

**AGRICULTURAL** 

WORKER

FARMER

	MANUFACT PLAN	URING						
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	22	0.9	0	0.0
II	0	0.0	0	0.0	17	0.6	8	0.3
III	0	0.0	0	0.0	0	0.0	0	0.0
IV	42	0.8	63	1.1	72	1.3	46	0.8
V	7	0.1	27	0.3	7	0.1	0	0.0
VI	23	0.7	66	1.8	67	1.8	0	0.0
VII	0	0.0	0	0.0	0	0.0	15	0.7
VIII	0	0.0	0	0.0	23	3.0	0	0.0
IX	0	0.0	41	1.2	13	0.4	13	0.4
X	9	0.2	9	0.2	6	0.2	17	0.4
TOTAL	81	0.4	206	0.6	227	0.7	99	0.3

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 1973.

	SKILLED OR UNSKILLED LABORER		OR SEI	PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
REGIONS	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
I	19	0.9	0	0.0	0	0.0	41	1.7	
II	0	0.0	0	0.0	0	0.0	25	0.8	
III	0	0.0	0	0.0	15	0.5	15	0.5	
IV	16	0.3	7	0.1	50	0.9	296	5.3	
٧	7	0.1	0	0.0	0	0.0	48	0.7	
VI	41	1.1	10	0.2	16	0.4	223	6.0	
VII	8	0.4	0	0.0	6	0.4	29	1.5	
VIII	0	0.0	0	0.0	0	0.0	23	3.0	
IX	7	0.2	0	0.0	7	0.2	81	2.3	
X	9	0.2	0	0.0	0	0.0	50	1.2	

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 1973.

	OR PESTI MANUFACT	FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		APPLICATOR				R
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	22	0.9	0	0.0
MAINE	0	0.0	0	0.0	22	12.8	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** 

**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 1973.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	19	0.9	0	0.0	0	0.0	41	1.7
MAINE	11	6.4	0	0.0	0	0.0	33	19.0
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	8	1.8	0	0.0	0	0.0	8	1.8

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 1973.

		PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER		AGRICULTURAL WORKER	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
123	REGION II	0	0.0	0	0.0	17	0.6	8	0.3
	NEW YORK	0	0.0	0	0.0	0	0.0	0	0.0
	NEW JERSEY	0	0.0	0	0.0	17	1.7	8	0.9

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 1973.

			SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
124	REGION II	0	0.0	0	0.0	0	0.0	25	0.8	
	NEW YORK	0	0.0	0	0.0	0	0.0	0	0.0	
	NEW JERSEY	0	0.0	0	0.0	0	0.0	25	2.6	

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 1973.

	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 III	0	0.0	0	0.0	0	0.0	0	0.0	
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	

0.0

0.0

0.0

0

0

0

0.0

0.0

0.0

0.0

0.0

0.0

0

0

DISTRICT OF COLUMBIA

VIRGINIA

WEST VIRGINIA

0

0

0

0.0

0.0

0.0

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 1973.

;	SKILLED OR LABO	UNSKILLED DRER	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	15	0.5	15	0.5
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 COLUMB	IA O	0.0	0	0.0	0	0.0	0	0.0
VIRGINIA	0	0.0	0	0.0	15	2.2	15	2.2
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

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 1973.

	FORMULATIN OR PESTI MANUFACT	PESTICIDE COMMERC: RMULATING PLANT APPLICA' OR PESTICIDE MANUFACTURING PLANT						AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATI	ED RATE	
REGION IV	42	0.8	63	1.1	72	1.3	46	0.8	
NORTH CAROLINA	0	0.0	0	0.0	29	3.6	14	1.8	
SOUTH CAROLINA	0	0.0	0	0.0	0	0.0	17	3.8	
GEORGIA	42	5.4	14	1.8	21	2.7	7	0.9	
FLORIDA	0	0.0	49	3.8	0	0.0	8	0.6	
KENTUCKY	0	0.0	0	0.0	7	1.1	0	0.0	
TENNESSEE	0	0.0	0	0.0	7	0.9	0	0.0	
ALABAMA	0	0.0	0	0.0	8	1.3	0	0.0	
MISSISSIPPI	0	0.0	0	0.0	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 1973.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IV	16	0.3	7	0.1	50	0.9	296	5.3
NORTH CAROLINA	0	0.0	0	0.0	29	3.6	72	9.1
SOUTH CAROLINA	0	0.0	0	0.0	0	0.0	17	3.8
GEORGIA	0	0.0	7	0.9	21	2.7	112	14.3
FLORIDA	8	0.6	0	0.0	0	0.0	65	5.0
KENTUCKY	0	0.0	0	0.0	0	0.0	7	1.1
TENNESSEE	0	0.0	0	0.0	0	0.0	7	0.9
ALABAMA	8	1.3	0	0.0	0	0.0	16	2.5
MISSISSIPPI	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 76 ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT			COMMERCIAL APPLICATOR		FARMER		IRAL R
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
129	REGION V	7	0.1	27	0.3	7	0.1	0	0.0
	OHIO	0	0.0	0	0.0	0	0.0	0	0.0
	INDIANA	0	0.0	10	1.3	0	0.0	0	0.0
	ILLINOIS	7	0.4	7	0.4	7	0.4	0	0.0
	MICHIGAN	0	0.0	10	0.7	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	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 1973.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	HI-	UNKNOWN NOT CLASS		TOTA	L `
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	7	0.1	0	0.0	0	0.0	48	0.7
OHIO	0	0.0	0	0.0	0	0.0	0	0.0
INDIANA	0	0.0	0	0.0	0	0.0	10	1.3
ILLINOIS	7	0.4	0	0.0	0	0.0	28	1.6
MICHIGAN	0	0.0	0	0.0	0	0.0	10	0.7
WISCONSIN	0	0.0	0	0.0	0	0.0	0	0.0
MINNESOTA	0	0.0	0	0.0	0	0.0	0	0.0

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 1973.

		PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER		AGRICULTU WORKER	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
<u>မ</u>	REGION VI	23	0.7	66	1.8	67	1.8	0	0.0
	ARKANSAS	0	0.0	0	0.0	0	0.0	0	0.0
	LOUISIANA	0	0.0	19	2.9	0	0.0	0	0.0
	OKLAHOMA	0	0.0	0	0.0	10	2.0	0	0.0
	TEXAS	23	1.1	47	2.2	47	2.2	0	0.0
	NEW MEXICO	0	0.0	0	0.0	10	5.5	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 1973.

	SKILLED OR LABO	UNSKILLED ORER	PROFESSION OR SEI	MI –	UNKNOWN NOT CLASS		TOTA	L
to the state of th	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	41	1.1	10	0.2	16	0.4	223	6.0
ARKANSAS	0	0.0	0	0.0	0	0.0	0	0.0
LOUISIANA	10	1.4	0	0.0	0	0.0	29	4.3
OKLAHOMA	0	0.0	10	2.0	0	0.0	20	2.0
TEXAS	31	1.5	0	0.0	16	0.7	164	7.9
NEW MEXICO	0	0.0	0	0.0	0	0.0	10	5.5

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 1973.

		PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER		AGRICULTU WORKER	
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
133	REGION VII	0	0.0	0	0.0	0	0.0	15	0.7
	IOWA	0	0.0	0	0.0	0	0.0	0	0.0
	MISSOURI	0	0.0	0	0.0	0	0.0	8	1.0
	NEBRASKA	0	0.0	0	0.0	0	0.0	0	0.0
	KANSAS	0	0.0	0	0.0	0	0.0	7	1.6

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 1973.

		SKILLED OR LABO	UNSKILLED DRER	PROFESSIO OR SEI PROFESSIO	-IN	UNKNOWN NOT CLASS:		TOTAI	-
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
134	REGION VII	8	0.4	0	0.0	6	0.4	29	1.5
	IOWA	0	0.0	0	0.0	0	0.0	0	0.0
	MISSOURI	8	1.0	0	0.0	0	0.0	16	2.0
	NEBRASKA	0	0.0	0	0.0	6	2.2	6	2.2
	KANSAS	0	0.0	0	0.0	0	0.0	7	1.6

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 1973.

	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	23	3.0	0	0.0
NORTH DAKOTA	0	0.0	0	0.0	14	10.8	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	4	3.2	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	5	3.0	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 1973.

	SKILLED OR LABO	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	HI-	UNKNOWN OR NOT CLASSIFIED		TOTA	L ,
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	23	3.0
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	14	10.8
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	4	3.2
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	5	3.0

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 1973.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERO APPLICA		FARMER	l .	AGRICULTU WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	0	0.0	41	1.2	13	0.4	13	0.4
CALIFORNIA	0	0.0	13	0.4	13	0.4	7	0.2
ARIZONA	0	0.0	28	8.5	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	6	8.5

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 1973.

	SKILLED OR LAB	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	HI-	UNKNOWN NOT CLASS		TOTA	L
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	7	0.2	0	0.0	7	0.2	81	2.3
CALIFORNIA	0	0.0	0	0.0	7	0.2	40	1.3
ARIZONA	7	2.1	0	0.0	0	0.0	35	10.6
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	6	8.5

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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 1973.

	PESTIC FORMULATIN OR PESTI MANUFACT PLAN	G PLANT CIDE URING	COMMERC APPLICA		FARMER	<b>!</b>	AGRICULTU WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	9	0.2	9	0.2	6	0.2	17	0.4
IDAHO	9	7.4	9	7.4	0	0.0	9	7.4
WASHINGTON	0	0.0	0	0.0	0	0.0	8	1.5
OREGON	0	0.0	0	0.0	6	1.9	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

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 1973.

		SKILLED OR LABO	UNSKILLED ORER	PROFESSIO OR SEI PROFESSIO	MI-	UNKNOWN NOT CLASS		TOTA	L
		ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
140	REGION X	9	0.2	0	0.0	0	0.0	50	1.2
	IDAHO	9	7.4	0	0.0	0	0.0	36	29.8
	WASHINGTON	0	0.0	0	0.0	0.	0.0	8	1.5
	OREGON	0	0.0	0	0.0	0	0.0	6	1.9
	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 1971, 1972, AND 1973.

	1971		19		197	3
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
GANOPHOSPHATSES	572	1.8	454	1.4	544	1.7
LORINATED HYDROCARB NSECTICIDES	ON 40	0.1	70	0.2	101	0.3
LORINATED HYDROCARB ERBICIDES, FUNGICID TC.		0.1	32	0.1	39	0.1
RBAMATES, AMIDES & ELATED COMPOUNDS	51	0.2	39	0.1	95	0.3
SENIC	23	0.1	8	0.0	7	0.0
HER	<u>45</u>	0.1	<u>17</u>	0.1	_54_	0.2
ΓAL	770	2.4	620	1.9	840	2.6

TABLE 83
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS 1971.

		- <del></del>	<del></del>			<del></del>	
REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS TC.	ARSENIC	OTHER	TOTAL
I	0	0	0	0	0	7	7
II	0	0	0	0	0	0	0
III	8	0	0	0	0	0	8
IV	242	8	23	30	15	15	333
V	24	0	8	0	0	0	32
VI	199	8	8	0	8	8	231
VII	23	8	0	0	0	0	31
VIII	0	16	0	0	0	8	24
IX	61	0	0	14	0	0	75
X	15	0	0	7	0	7	29
U.S. TOTAL	L 572	40	39	51	23	45	770

TABLE 84

RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA
REGIONS, 1971.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.0	0.0	0.0	0.0	0.0	0.4	0.4
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0
III	0.2	0.0	0.0	0.0		0.0	0.2
IV	4.3	0.1	0.4	0.5	0.3	0.3	5.9
٧	0.3	0.0	0.1	0.0	0.0	0.0	0.5
VI	5.3	0.2	0.2	0.0	0.2	0.2	6.2
IIV	1.1	0.4	0.0	0.0	0.0	0.0	1.5
VIII	0.0	1.5	0.0	0.0	0.0	0.8	2.3
IX	1.7	0.0	0.0	0.4	0.0	0.0	2.1
X	1.4	0.0	0.0	0.7	0.0	0.7	2.8
U.S. TOTA	AL 1.8	0.1	0.1	0.2	0.1	0.1	2.4

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TABLE 85
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS 1972.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0	0	0	0	0	0	0
II	0	0	0	0	0	0	0
III	24	0	0	0	0	0	24
IV	174	38	8	8	8	0	236
V	24	0	8	0	0	0	32
VI	91	17	8	8	0	17	141
VII	15	8	8	8	0	0	39
VIII	16	0	0	8	0	0	24
IX	95	0	0	7	0	0	102
X	15	7	0	0	0	0	22
U.S. TOTAL	L 454	70	32	39	8	17	620

TABLE 86

RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA
REGIONS, 1972.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0
III	0.7	0.0	0.0	0.0	0.0	0.0	0.7
IV	3.1	0.7	0.1	0.1	0.1	0.1	4.1
V	0.3	0.0	0.1	0.0	0.0	0.0	0.5
VI	2.4	0.4	0.2	0.2	0.0	0.4	3.7
VII	0.7	0.4	0.4	0.4	0.0	0.0	1.9
VIII	1.5	0.0	0.0	8.0	0.0	0.0	2.3
IX	2.7	0.0	0.0	0.2	0.0	0.0	2.9
K	1.4	0.7	0.0	0.0	0.0	0.0	2.1
U.S. TOTA	L 1.4	0.2	0.1	0.1	0.0	0.1	1.9

TABLE 87
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS 1973.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	7	15	0	7	0	0	29
11	20	0	0	10	0	0	30
III	16	0	0	0	0	0	16
IV	174	53	23	53	0	0	303
V	33	0	8	8	0	0	<b>4</b> 9
VI	157	25	8	17	0	17	224
VII	8	8	0	0	0	15	31
VIII	24	0	0	0	0	8	32
IX	68	0	0	0	7	7	82
X	37	0	0	0	0	7	44
U.S. TOTAL	L 544	101	39	95	7	54	840

TABLE 88

RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA
REGIONS, 1973.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, E	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.4	0.8	0.0	0.4	0.0	0.0	1.7
11	0.6	0.0	0.0	0.3	0.0	0.0	0.8
III	0.5	0.0	0.0	0.0	0.0	0.0	0.5
IV	3.1	0.9	0.4	0.9	0.0	0.0	5.3
V	0.5	0.0	0.1	0.1	0.0	0.0	0.7
VI	4.2	0.7	0.2	0.4	0.0	0.4	5.9
VII	0.4	0.4	0.0	0.0	0.0	0.7	1.5
VIII	2.3	0.0	0.0	0.0	0.0	0.8	3.0
IX	1.9	0.0	0.0	0.0	0.2	0.2	2.3
X	3.5	0.0	0.0	0.0	0.0	0.7	4.2
U.S. TOTAI	L 1.7	0.3	0.1	0.3	0.0	0.2	2.6

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 1971, 1972, AND 1973.

	YEAR	ESTIMATED NOMBER	RATE
	1971	995	3.0
148	1972	1231	3.7
	1973	1001	3.1

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 1971, 1972, AND 1973.

	1971		1972	)	1973	
EPA REGION	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	21	1.3	34	1.7	6	0.4
II	29	8.0	38	1.1	51	1.4
III	128	2.9	230	5.4	94	2.0
IV	128	2.3	185	3.3	111	2.0
V	284	4.1	309	4.4	286	4.1
VI	110	2.9	131	3.5	70	2.0
VII	46	2.2	64	3.0	74	3.7
VIII	22	1.5	11	1.5	21	1.5
IX	205	5.9	186	5.4	258	7.3
X	22	2.1	43	4.2	30	2.8
U.S. TOTAL	995	3.0	1231	3.7	1001	3.1

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 1971, 1972, AND 1973.

	1971			1972		3
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	21	1.3	34	1.7	6	0.4
MAINE	0	0.0	22	12.8	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	6	0.7	12	1.5	6	0.7
RHODE ISLAND	0	0.0	0	0.0	0	0.0
CONNECTICUT	15	3.6	0	0.0	0	0.0

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 1971, 1972, AND 1973.

		1971 ESTIMATED		1972 ESTIMATED			
REGION & STATE	NUMBER	RATE	NUMBER	RATE	E <mark>STIMATE</mark> D NUMBER	RATE	
REGION II	29	0.8	38	1.1	51	1.4	
NEW YORK	21	0.8	21	8.0	43	1.6	
NEW JERSEY	8	0.9	17	1.8	8	0.9	

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 1971, 1972, AND 1973.

	197	<u> </u>	1972	2	197	3
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	128	2.9	230	5.4	94	2.0
PENNSYLVANIA	53	3.0	74	4.2	63	3.6
DELAWARE	27	36.5	0	0.0	0	0.0
MARYLAND	13	2.7	6	1.4	0	0.0
DISTRICT OF COLUMBIA	31	16.5	126	66.1	31	16.5
VIRGINIA	0	0.0	15	2.2	0	0.0
WEST VIRGINIA	4	1.2	9	2.3	0	0.0

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 1971, 1972, AND 1973.

	1971		1972	2	1973	3
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	128	2.3	185	3.3	111	2.0
NORTH CAROLINA	14	1.8	50	6.4	14	1.8
SOUTH CAROLINA	0	0.0	8	1.9	16	3.8
GEORGIA	14	1.8	7	0.9	0	0.0
FLORIDA	41	3.2	8	0.6	16	1.3
KENTUCKY	20	3.4	39	6.7	13	2.2
TENNESSEE	14	1.9	21	2.8	21	2.8
ALABAMA	15	2.5	31	5.0	31	5.0
MISSISSIPPI	10	2.5	21	5.0	0	0.0

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 1971, 1972, AND 1973.

	1971			1972		3
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	284	4.7	309	4.4	286	4.1
OHIO	43	2.6	61	3.6	61	3.6
INDIANA	10	1.3	10	1.3	21	2.6
ILLINOIS	96	5.2	141	7.6	134	7.2
MICHIGAN	72	5.2	52	3.7	31	2.2
WISCONSIN	· 28	3.8	21	2.8	21	2.8
MINNESOTA	35	5.2	24	3.5	18	2.6

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 1971, 1972, AND 1973.

	1971			1972		
REGION & STATE	ESTIMATED NUMBER	RATE	E <mark>STIMATED</mark> NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	110	2.9	131	3.5	70	2.0
ARKANSAS	7	2.0	22	5.9	0	0.0
LOUISIANA	29	4.3	29	4.3	0	0.0
OKLAHOMA	10	2.0	0	0.0	0	0.0
TEXAS	54	2.6	70	3.4	70	3.4
NEW MEXICO	10	5.5	10	5.5	0	0.0

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 1971, 1972, AND 1973.

	197			1972 1973			
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	•
REGION VII	46	2.2	64	3.0	74	3.7	
IOWA	18	3.5	28	5.2	18	3.5	
MISSOURI	8	1.0	16	1.9	16	1.9	
NEBRASKA	0	0.0	0	0.0	6	2.2	
KANSAS	20	4.8	20	4.8	34	8.0	

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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 1971, 1972 AND 1973.

	1971			1972		3
REGION & STATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	22	1.5	11	1.5	21	1.5
NORTH DAKOTA	0	0.0	7	5.4	0	0.0
SOUTH DAKOTA	0	0.0	4	3.2	4	3.2
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	17	4.0	0	0.0	17	4.0
UTAH	5	3.0	0	0.0	0	0.0

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 1971, 1972, AND 1973.

	1971 ESTIMATED		1972 ESTIMATED	1972		3	
REGION & STATE	NUMBER	RATE	NUMBER	RATE	ESTIMATED NUMBER	RATE	
REGION IX	205	5.9	186	5.4	258	7.5	
CALIFORNIA	198	6.5	172	5.7	238	7.9	
ARIZONA	7	2,1	14	4.2	14	4.2	
NEVADA	0	0.0	0	0.0	0	0.0	
HAWAII	0	0.0	0	0.0	6	8.5	

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 1971, 1972, AND 1973.

	1971		1972 ESTIMATED	1972		3
REGION & STATE	ESTIMATED NUMBER	RATE	NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	22	2.1	43	4.2	30	2.8
IDAHO	0	0.0	0	0.0	9	7.5
WASHINGTON	16	2.9	24	4.4	8	1.5
OREGON	6	1.9	19	5.6	13	3.7
ALASKA	0	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 1971, 1972, AND 1973.\*

	OCCUP	ATIONAL	NON-OCCI	JPATIONAL	INTE	NTIONAL
AGE	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
)-4	0	0	1	8	0	0
i <b>-</b> 9	0	0	1	8	0	0
0-14	0	0	0	0	0	0
5-19	0	0	1	8	3	24
0-24	0	0	0	0	2	16
5-34	1	8	1	8	3	24
5-44	0	0	0	0	2	16
5-54	0	0	0	0	2	16
5-64	1	8	0	0	2	16
5+	0	0	2	16	1	8
IKNOWN	1	8	0	0	0	0
DTAL	3	24	6	48	15	120

<sup>\*</sup> 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)
RS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP AND CAUSE O

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP AND CAUSE OF EXPOSURE IN THE UNITED STATES FOR 1971, 1972, AND 1973.\*

	UNKN	IOWN	TOTAL		
AGE	OBSERVED	ESTIMATED	OBSERVED ES	TIMATED	
0-4	0	0	ì	8	
5-9	0	0	1	8	
10-14	0	0	0	0	
15-19	0	0	4	32	
20~24	0	0	2	16	
25~34	0	0	5	40	
35-44	0	0	2	16	
45-54	0	0	2	16	
55-64	0	0	3	24	
65+	0	0	3	24	
UNKNOWN	_1_	8	2	16	
TOTAL	1	8	25	200	

<sup>\*</sup>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 1971.\*

	OCCUI	OCCUPATIONAL		JPATIONAL	INTENTIONAL	
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0	0	0
II	0	0	0	0	0	0
III	0	0	0	0	0	0
IV	0	0	2	17	0	0
v	0	0	0	0	0	0
VI	1	8 .	1	8	1	8
ŅII	0	0	0	0	0	0
VIII	0	0	0	0	0	0
IX	0	0	0	0	1	8
x	0	0	0	0	0	0
J.S. TOTAL	1	8	· 3	25	2	16

<sup>\*</sup>THE ESTIMATES WERE DEVELOPED FROM A SUM OF 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 1971.\*

,	UNKNO	<u>DWN</u>	<u>T0</u> 1	ΓAL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	, 0	0
II	0	0	0	0
III	0	0	0	0
IV	0	0	2	17
V	0	0	0	0
/I	0	0	<b>3</b>	24
II	0	0	0	0
1111	0	0	0	0
X	0	0	1	8
	0	0	0	0
.S. TOTAL	0	0	6	49

<sup>\*</sup>THE ESTIMATES WERE DEVELOPED FROM A SUM OF 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 1972.\*

	OCCUP	PATIONAL	NON-OCCL	JPATIONAL	INTEN	ΓΙΟΝΑL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0	0	0
II	0	0	0	0	0	0
III	0	.0	0	0	0	0
IV	1	8	0	0	1	8
٧	Ò	0	0	0	2	16
VI	0	0	2	16	0	0
VII	0	0	0	0	1	8
VIII	0	0	0	0	1	8
IX	0	0	0	0	3	20 =
X	0	0	0	0	0	0
U.S. TOTAL	1	8	2	16	8	60

<sup>\*</sup>THE ESTIMATES WERE DEVELOPED FROM A SUM OF THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 103 (CONTINUED)
OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EP

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA REGION IN THE UNITED STATES FOR 1972.\*

•	UNKNO	<u>NWC</u>	<u>T0</u>	TAL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0
II	0	0	0	0
III	0	0	0	0
IV	1	8	3	24
V	0	0	2	16
VI	0	0	2	16
VII	0	0	1	8
VIII	0	0	1	8
IX	0	0	3	20
X	0	0	0	0
U.S. TOTAL	1	8	12	92

<sup>\*</sup>THE ESTIMATES WERE DEVELOPED FROM A SUM OF 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 1973.\*

	occui	PATIONAL	NON-OCCU	JPATIONAL	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	0	0	2	16
IV	0	0	0	0	0	0
v	0	0	1	8	0	0
VI	ī	8	0	0	1	8
VII	0	0	0	0	0	0
IIIV	0	0	0	0	0	0
IX	0	0	0	0	2	14 =
x	0	0	0	0	0	0
U.S. TOTAL	1	8	1	8	5	38

<sup>\*</sup>THE ESTIMATES WERE DEVELOPED FROM A SUM OF THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

REGION IN THE UNITED STATES FOR 1973.\*

TABLE 104 (CONTINUED)

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

•	UNKNO	<u>DWN</u>	<u>T01</u>	AL
REGIONS	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0
II	0	0	0	0
III	0	0	2	16
IV	0	0	0	0
V	0	0	1	8
VI	0	0	2	16
VII	0	0	0	0
VIII	0	0	0	0
IX	0	0	2	14
X	0	0	0	0
U.S. TOTAL	0	0	7	54

<sup>\*</sup>THE ESTIMATES WERE DEVELOPED FROM A SUM OF THE RATIO OF REGIONAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

## SUMMARY

## CHAPTER V

Previous studies of pesticide poisonings in the United States were largely confined to individual States or at best a few States. Most examined mortality but rarely considered morbidity. The present study by the U. S. Environmental Protection Agency (EPA) marks a significant departure from this tradition: it is nationwide, and it considers morbidity as well as mortality.

Selecting a stratified random sample of the Nation's 7000 general-care hospitals, the Human Effects Monitoring Branch employed a statistically reliable method for assessing the seriousness of pesticide poisonings in 1971-73. Authors of The National Hospital Study used the procedure described in Chapter III to estimate the number of pesticide poisonings admitted to general-care hospitals and the incidence rates per 100,000 hospital admissions in the Nation, EPA regions, and each of the fifty states plus the District of Columbia. Mortality rates were also developed for the United States and for the EPA regions.

Nationally, the estimated numbers of hospital-admitted pesticide poisonings in 1971, 1972, and 1973 were 2,596, 2,821, and 2,831, respectively. The three-year total (1971-73) was estimated to be 8,248 hospital-admitted pesticide poisonings.

Nationwide incidence rates ranged from 8.2 cases per 100,000 hospital admissions in 1971 to 8.5 in 1973. For 1973, the standard deviation of the incidence rate of 8.5 per 100,000 hospital admissions was 0.67; thus with greater than 95 percent confidence the incidence rate of pesticide poisonings due to all causes is between 7.8, and 9.2 cases per 100,000 admissions.

Since all rates expressed in terms of 100,000 admissions change by less than 1.4 cases each year, it is doubtful that the rates differ significantly from year to year.

Data clearly show that EPA Regions I, V, VII, and X witnessed increases in the estimated numbers of pesticide poisonings and in the incidence rates per 100,000 hospital admissions for such poisonings in 1971-73. Regions IV, VI, and IX consistently maintained incidence rates greater than the average rate for the ten regions. Regions I, II, V, VIII, and X had higher incidence rates in 1973 than in 1971.

Nationally, the estimated numbers of pesticide poisonings admitted to general-care hospitals as a result of occupational exposure increased from 811 in 1971 to 855 in 1973. Nonoccupational hospital-admitted pesticide poisonings increased from 1,295 in 1971 to 1,446 in 1973; this omits intentional poisonings. Incidence rates for pesticide poisonings per 100,000 hospital admissions in the occupationally exposed was estimated to be 2.5 in 1971, and remained at that figure in 1973. Region IV led all regions in the estimated numbers of occupationally related pesticide poisonings in 1971, 1972, and 1973; respective totals were 332, 225, and 296. Region VI had estimated incidence rates of 6.6, 3.8 and 5.8 cases per 100,000 hospital admissions in 1971, 1972, and 1973, respectively, leading all regions. It is significant that during the three-year period only an estimated 28 percent (2,295) of all pesticide poisonings admitted to hospitals were occupationally related; of this group, farmers and agricultrual workers had the greatest percentage of poisonings: 36 percent (817).

Organophosphates were the most common cause of occupationally related hospital-admitted pesticide poisonings in 1971-73. Organophosphates were responsible for 68 percent (1,570) of the poisonings; chlorinated hydrocarbons were responsible for only 14 percent (321) during that period.

Regions IV and VI had a large majority of the Nations occupationally related pesticide poisonings admitted to hospitals in 1971-73. In 1971 the two regions had 77 percent of the Nation's occupationally related organophosphate poisonigs, 59 percent of the chlorinated hydrocarbon poisonings, 59 percent of the carbamate poisonings; and 100 percent of the arsenicals. Corresponding percentages for Regions IV and VI in 1972 were: organophosphates, 58 percent; chlorinated hydrocarbons, 70 percent; carbamates, 41 percent; and arsenicals, 100 percent. In 1973, the same regions had 61 percent of the Nation's occupationally related organophosphate poisonings, 78 percent of the chlorinated hydrocarbon poisonings, and 74 percent of the carbamate poisonings.

The data clearly show organophosphates are responsible for the greatest share of the occupationally exposed pesticide poisonings; it is equally clear that the percentage of involvement decreased from 1971 to 1973.

Nationally the estimated numbers of hospital-admitted pesticide poisonings in 1971, 1972, and 1973 among children 0-4 years were 995, 1,231, and 1,001, respectively. Incidence rates per 100,000 hospital admissions ranged from 3.0 in 1971 to 3.1 in 1973. Region V, with 284 estimated hospital-admitted poisonings in children 0-4 years, and Region IX, with an incidence rate of 5.9, were high among the regions in 1971. California, with 198 estimated hospital-admitted pesticide poisonings, and Delaware, with an incidence rate of 36.5 were the highest among the States in 1971.

Region V had 309 estimated hospital-admitted pesticide poisonings among children 0-4 years in 1972, and Regions III and IX had an estimated incidence rate of 5.4; these were high among the regions. California, with an estimated 172 hospital-admitted pesticide poisonings, and the District of Columbia, with an incidence rate of 66.1, were the highest among the States in 1972.

Region V had 286 estimated hospital-admitted pesticide poisonings among children 0-4 years in 1973 and Region IX had an incidence rate of 7.3; these were high among the regions. California, with an estimated 238 hospital-admitted pesticide poisonings, and the District of Columbia, with an incidence rate of 16.5 were highest among the States that year.

Because few deaths were associated with pesticide poisonings in 1971-73, all observed deaths for the period have been grouped in order to estimate statistically the magnitude of the problem throughout the Nation's general-care hospitals. The estimated numbers of occupationally related hospital-admitted pesticide poisoning deaths account for only 12 percent (24) of the total (195) in 1971-73, but the estimated number of intentional deaths make up more than 58 percent (114) of the hospital-admitted pesticide poisoning deaths for the three-year period. Children less than ten years of age comprised an estimated 8 percent (16) of the total pesticide-related deaths. Only in Regions IV and VI did hospital-admitted persons die of occupationally related pesticide poisonings.

As mentioned earlier, the National Hospital Study includes pesticide poisonings only of those individuals who received hospitalization for the poisonings. This excludes several categories: poisonings treated in physicians offices instead of hospitals, emergency-room cases which did no require not require hospitalization, and pesticide poisonings not receiving medical treatment of any nature.

Hayes and Pirkle have noted that physicians sometimes attribute pesticide illnesses and deaths to other causes (5). However, investigators in the present study believe that the majority of poisonings attributed to pesticides were correctly diagnosed due to hospital records of patients' exposure, consistent clincial management and occasionally, laboratory findings.

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TABLE A-1

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

YEARS	CASES
1971	336
1972	368
1973	368
TOTAL	1072

		CASES	<del></del>
REGION	1971	1972	1973
I	5	5	9
II	5	10	9
III	24	40	26
IV	78	85	72
V	50	57	59
VI	54	49	57
/II	14	18	26
VIII	6	9	9
IX	89	83	81
X	11	12	20
TOTAL	336	368	368

TABLE C-1

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973

		CASES	
REGION · I	1971	1972	1 <b>9</b> 73
MAINE	0	2	4
NEW HAMPSHIRE	0	0	0
VERMONT	0	0	0
MASSACHUSETTS	2	3	3
RHODE ISLAND	0	0	0
CONNECTICUT	3	0	2

TABLE C-2
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

		CASES							
REGION II	1971	1972	1973						
NEW YORK	3	3	4						
NEW JERSEY	2	7	5						

TABLE C-3
NUMBER OF OBSERVED CASES OF HOSPITÁL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

REGIONIII	1971	1972	1973
PENNSYLVANIA	9	9	11
DELAWARE	3	3	1
MARYLAND	4	8	5
DISTRICT OF COLUMBIA	4	14	5
/IRGINIA	2	2	4
WEST VIRGINIA	2	4	0

TABLE C-4
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

		CASES				
REGION IV	1971	1972	1973			
NORTH CAROLINA	15	14	13			
SOUTH CAROLINA	2	3	5			
GEORGIA	18	18	17			
FLORIDA	24	9	14			
KENTUCKY	6	15	. 4			
TENNESSEE	6	13	11			
ALABAMA	5	8	7			
MISSISSIPPI	2	5	1			

6

TABLE C-5
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

		CASES	-
REGION V	1971	1972	1973
OHIO	6	9	11
INDIANA	1	2	4
ILLINOIS	21	26	27
MICHIGAN	10	8	5
WISCONSIN	5	6	6
MINNESOTA	7	6	6

TABLE C-6
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

		CASES	
REGION VI	1971	1972	1973
ARKANSAS	]	4	0
LOUISIANA	4	5	6
OKLAHOMA	4	3	4
TEXAS	43	33	46
NEW MEXICO	2	4	1

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TABLE C-7
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

		CASES	
REGION VII	1971	1972	1973
IOWA	3	6	6
MISSOURI	6	3	6
NEBRASKA	1	2	5
KANSAS	4	7	9

TABLE C-8

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

	_	CASES		
REGION VIII	1971	1972	1973	
NORTH DAKOTA	1	2	2	
SOUTH DAKOTA	0	1	2	
MONTANA	1	0	0	
WYOMING	0	0	0	
COLORADO	2	3	4	
UTAH	2	3	1	

TABLE C-9
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

	_	CASES		
REGION IX	1971	1972	1973	
CALIFORNIA	77	69	71	
ARIZONA	8	13	8	
NEVADA	0	0	0	
HAWAII	4	1	2	

TABLE C-10

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1971, 1972, AND 1973.

		CASES		
REGION X	1971	1972	1973	
IDAHO	2	2	6	
WASHINGTON	5	3	7	
OREGON	4	7	7	
ALASKA	0	0	0	

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TABLE D-1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE AND REGION, 1971, 1972,
AND 1973.

							<del></del>			
	<u>0C</u>	CUPATIO	NAL	NON-	OCCUPAT.	IONAL	IN	<u> TENTION</u>	UNCLASSIFIED	
REGION	1971	1972	1973	1971	1972	1973	1971	1972	1973	
I	1	0	4	3	4	4	1	1	1	0
II	0	.0	3	3	8	6	2	2	0	0
III	1	. 3	2	20	31	17	1	4	7	4
IV	44	31	40	28	40	19	6	10	13	4
V	4	4	6	39	47	47	7	6	6	0
VI	28	17	27	19	29	17	7	3	12	1
VII	4	5	4	8	11	17	2	2	5	0
VIII	3	3	4	2	5	4	1	1	1	0
IX	11	15	12	39	38	47	39	29	22	1
X	4	3_	6	4	8	11	3_	1	2	1
TOTAL	100	81	108	165	221	189	69	59	69	11

TABLE E-1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION I AND STATES,
1971, 1972 AND 1973.

	OCCUPATIONAL			NON-	NON-OCCUPATIONAL			INTENTIONAL			UNCLASSIFIED		
REGION & STATE	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973	
REGION I	1	0	4	3	4	4	1	1	1	0	0	0	
MAINE	0	0	3	0	2	1	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	1	0	0	1	2	2	0	1	1	0	0	0	
RHODE ISLAND	0	0	0	0	0	0	0	0	0	0	0	0	
CONNECTICUT	0	0	1	2	0	1	1	0	0	0	0	0	

TABLE E-2
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION II AND STATES,
1971, 1972 AND 1973.

,	<u>0C</u>	CUPATIO	NAL	NON-OCCUPATIONAL		<u>IN</u>	INTENTIONAL			UNCLASSIFIED		
REGION & STATE	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
REGION II	0	0	3	3	8	6	2	2	0	0	0	0
NEW YORK	0	0	0	2	2	4	1	1	0	0	0	0
NEW JERSEY	0	0	3	1	6	2	1	1	0	0	0	0

TABLE E-3

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION III AND STATES,
1971, 1972 AND 1973.

REGION & STATE	OCCUPATIONAL			NON-OCCUPATIONAL			INTENTIONAL			UNCLASSIFIED		
	1971	1972	1973	1971	1972	1973	1971	·1972	1973	1971	1972	1973
REGION III	]	3	2	20	31	17	1'	· 4	7	2	2	0
PENNSYLVANIA	0	0	0	8	9	9	1	0	2	0	0	0
DELAWARE	1	3	0	2	0	1	0	0	0	0	0	0
MARYLAND	0	0	0	2	4	3	0	2	2	2	2	0
DISTRICT OF CO	0	0	0	4	12	4	0	2	1	0	0	0
VIRGINIA	0	0	2	2	2	0	0	0	2	0	0	0
WEST VIRGINIA	0	0	0	2	4	0	0	0	0	0	0	0

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TABLE E-4

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

1971, 1972 AND 1973.

REGION & STATE	OCCUPATIONAL			NON-OCCUPATIONAL			<u> j</u>	INTENTIONAL			UNCLASSIFIED		
	1971	1972	1973	1971	1972	1973	197	1972	1973	1971	1972	1973	
REGION IV	44	31	40	28	40	19	6	10	13	0	4	0	
NORTH CAROLINA	9	2	10	4	8	3	2	0	0	0	4	0	
SOUTH CAROLINA	2	1	2	0	2	2	0	0	1	0	0	0	
GEORGIA	12	14	16	5	3	0	1	1	1	0	0	0	
FLORIDA	16	7	8	7	2	4	1	0	2	0	0	0	
KENTUCKY	1	4	1	4	8	2	1	3	1	0	0	0	
TENNESSEE	2	2	1	3	7	4	1	4	6	0	0	0	
ALABAMA	2	1	2	3	5	4	0	2	1	0	0	0	
MISSISSIPPI	0	0	0	2	5	0	0	0	1	0	0	0	

TABLE E-5
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION V AND STATES,
1971, 1972 AND 1973.

REGION & STATE	OCCUPATIONAL			NON-OCCUPATIONAL			INTENTIONAL			UNCLASSIFIED		
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
REGION V	4	4	6	39	47	47	7	, 6	6	0	0	0
OHIO	0	0	0	5	7	9	1	2	2	0	0	0
INDIANA	0	0	1	1	1	3	0	1	0	0	0	0
ILLINOIS	3	3	4	14	22	22	4	1	1	0	0	0
MICHIGAN	1	0	1	8	7	4	1	1	0	0	0	0
WISCONSIN	0	0	0	4	5	6	1	1	0	0	0	0
MINNESOTA	0	1	0	7	5	3	0	0	3	0	0	0

TABLE E-6
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VI AND STATES,
1971, 1972 AND 1973.

REGION & STATE	OCCUPATIONAL			NON-OCCUPATIONAL			INTENTIONAL			UNCLASSIFIED		
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
REGION VI	28	17	27	19	29	17	7	3	12	0	0	1
ARKANSAS	0	0	0	1	4	0	0	0	0	0	0	0
LOUISIANA	1	2	3	3	3	0	0	0	3	0	0	0
OKLAHOMA	2	1	2	<b>1</b>	2	1	1	0	1	0	0	0
TEXAS	24	12	21	13	19	16	6	2	8	0	0	1
NEW MEXICO	1	2	1	1	1	0	0	1	0	0	0	0

TABLE E-7
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VII AND STATES,
1971, 1972 AND 1973.

REGION & STATE	OCCUPATIONAL			NON-OCCUPATIONAL			INTENTIONAL			UNCLASSIFIED		
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
REGION VII	4	5	4	8	11	17	2	2	5	0	0	0
IOWA	0	2	0	2	3	5	1	1	1	0	0	0
MISSOURI	4	0.	2	1	3	2	1	0	2	0	0	0
NEBRASKA	0	1	1	1	1	3	0	0	1	0	0	0
KANSAS	0	2	1	4	4	7	0	1	1	0	0	0

TABLE E-8

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VIII AND STATES,
1971, 1972 AND 1973.

	OC	CUPATIO	NAL_	NON-	OCCUPAT	IONAL	IN	TENTION	<u>AL</u>	UNC	LASSIFI	<u>ED</u>
REGION & STATE	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
REGION VIII	3	3	4	2	5	4	1	1	1	0	0	0
NORTH DAKOTA	1	1	2	0	1	0	0	0	0	0	0	0
SOUTH DAKOTA	0	0	1	0	1	1	0	0	0	0	0	0
MONTANA	1	0	0	0	0	0	0	0	0	0	0	0
WYOMING	0	0	0	, O	0	0	0	0	0	0	0	0
COLORADO	1	1	0	1	1	3	0	1	1	0	0	0
UTAH	0	1	1	1	2	0	1	0	0	0	0	0

TABLE E-9

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

1971, 1972 AND 1973.

	OC	OTTAQUO	NAL_	NON-	OCCUPAT	IONAL	IN	TENT ION	<u>AL</u>	UNC	LASSIFI	<u>ED</u>
REGION & STATE	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
REGION IX	17	15	12	39	38	47	39	29	22	0	1	0
CALIFORNIA	4	7	6	37	35	43	36	27	22	0	0	0
ARIZONA	7	8	5	1	3	3	0	1	0	0	1	0
NEVADA	0	0	0	0	0	0	0	0	0	0	0	0
HAWAII	0	0	1	1	0	7	3	1	0	0	0	0

TABLE E-10
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION X AND STATES,
1971, 1972 AND 1973.

	<u>oc</u>	CUPATIO	NAL	NON-	OCCUPAT	IONAL	IN	TENTION/	<u>AL</u>	UNC	LASSIFI	ED
REGION & STATE	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
REGION X	4	3	6	4	8	11	3	1	2	0	0	1
IDAHO	2	2	4	0	0	2	0	0	0	0	0	0
WASHINGTON	2	0	1	2	3	5	1	0	1	0	0	0
OREGON	0	1	1	2	5	4	2	1	1	0	0	1
ALASKA <sup>*</sup>	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 1971.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	0	1
II	0	0	0	0
III	0	0	1	0
IV	7	7	12	6
V	2	0	0	0
VI	1	3	2	3
VII	0	0	0	0
VIII	0	1	1	0
IX	2	8	0	0 ==
X	<u> </u>		0	_1_
TOTAL	13	21	16	11

TABLE F-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1971.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	1
II	0	0	0	0
III	0	0	0	1
IV	7	2	3	44
٧	1	0	1	4
VI	17	0	2	28
VII	2	0	2	4
VIII	0	0	1	3
IX	0	0	1	11
X	0	0	0	4
TOTAL	27	2	10	100

TABLE G-1

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	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 G-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	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	o <sup>(*</sup>	0	0	1
RHODE ISLAND	: <b>0</b>	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 1971.

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

NEW JERSEY

TABLE G-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

	• •	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
29	REGION II	0	0	0	0
	NEW YORK	0	0	0	0
	NEW JERSEY	0	0	0	0

TABLE G-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

		PESTICIDE RMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
30	REGION III	0	0	1	0
	PENNSYLVANIA	0	0	0	0
	DELAWARE	0	0	1	0
	MARYLAND	0	0	0	0
	DISTRICT OF COLUMBIA	0	0	.0	0

**VIRGINIA** 

WEST VIRGINIA

TABLE G-3 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

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

	OBSERVED	OBSERVED	OBSERVED	QBSERVED
REGION III	0	0	0	1
PENNSYLVANIA	0	0	0	0
DELAWARE	0	0	0	ı
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	0	0	0	0
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 1971.

COMMERCIAL

**PESTICIDE** 

AGRICULTURAL

**FARMERS** 

		FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	APPLICATOR		WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
32	REGION IV	7	7	12	6
	NORTH CAROLINA	0	1	5	1
	SOUTH CAROLINA	0	0	1	0
	GEORGIA	4	· 1	4	0
	FLORIDA	2	4	1	5
	KENTUCKY	0	0	0	0
	TENNESSEE	1	0	0	0
	ALABAMA	0	1	1	0
	MISSISSIPPI	0	0	0	0

TABLE G-4 (CONTINUED)

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

AND STATES IN 1971.

CALLLED OD HWCALL ED	DDOEECCTONAL	UNKNOWN	TOTAL
SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	NOT CLASSIFIED	TOTAL

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	7	2	3	44
NORTH CAROLINA	0	0	2	9
SOUTH CAROLINA	1	0	0	2
GEORGIA	1	2	0	12
FLORIDA	4	0	0	16
KENTUCKY	1	0	0	1
TENNESSEE	0	0	1	2
ALABAMA	0	0	0	2
MISSISSIPPI	0	0	0	0

TABLE G-5

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
34	REGION V	2	0	0	0
	OHIO	0	0	0	0
	INDIANA	0	0	0	0
	ILLINOIS	2	0	0	0
	MICHIGAN	0	0	0	0
	WISCONSIN	0	0	0	0
	MINNESOTA	0	0	0	0

TABLE G-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

		SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	· · · · · · · · · · · · · · · · · · ·	OBSERVED	OBSERVED	OBSERVED	OBSERVED
<u>35</u>	REGION V	1	0	1	4
	OHIO	0	0	0	0
	INDIANA	0	0	0	0
	ILLINOIS	1	0	0	3
	MICHIGAN	0	0	1	1
	WISCONSIN	0	0	0	0
	MINNESOTA	0	0	0	0

TABLE G-6
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRÍCULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
36	REGION VI	1	3	2	3
	ARKANSAS	0	0	0	0
	LOUISIANA	0	0	0	1
	OKLAHOMA	. 0	0	0	2
	TEXAS	1	3	1	0

**NEW MEXICO** 

TABLE G-6 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

		SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	I	17	0	2	28
ARKANS	AS	0	0	0	0
LOUISI	ANA	0	0	0	1
OKLAHO	MA	0	0	0	2
TEXAS		17	0	2	24
NEW ME	XICO	0	0	0	1

TABLE G-7
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	PLANT  OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	0	0	0	0
IOWA	0	0	0	0
MISSOURI	0	0	0	0
NEBRASKA	0	0	0	0
KANSAS	0	0	0	. 0

TABLE G-7 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1971.

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

		OBSERVED	OBSERVED	OBSERVED	OBSERVED
39	REGION VII	2	0	2	4
	IOWA	0	0	0	0
	MISSOURI	2	0	2	4
	NEBRASKA	0	0	0	0
	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 1971.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	1	1	0
NORTH DAKOTA	0	1	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	1	0

WYOMING

**COLORADO** 

UTÆH

TABLE G-8 (CONTINUED) OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	1	3
NORTH DAKOTA	0	0	0	1
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	1
WYOMING	0	0	0	0

0

0

0

0

**COLORADO** 

**UTAH** 

TABLE G-9

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED.	QBSERVED	OBSERVED	OBSERVED
REGION IX	2	8	0	0
CALIFORNIA	1	3	0	0
ARIZONA	1	5	0	0
NEVADA	0	0	0	0
HAWAH	0	0	0	0

TABLE G-9 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
. W.	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	0	0	1	11
CALIFORNIA	0	0	0	4
ARIZONA	0	0	1	7
NEVADÁ	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 1971.

PESTICIDE
FORMULATING PLANT
OR PESTICIDE
MANUFACTURING
PLANT
1 to 7 31 V I

COMMERCIAL APPLICATOR

**FARMERS** 

AGRICULTURAL WORKER

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

(CONTINUED) TABLE G-10 OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1971.

		SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
45	REGION X	0	0	0	4
01	IDAHO	0	0	0	2
	WASHINGTON	0	0	0	2
	OREGON	0.	0	0	0
	ALASKA	0	0	0	0

4

TABLE H-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1972.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	0	0
II	0	0	0	0
III	0	0	3	0
IV	9	3	10	7
V	2	0	1	0
VI	1	7	3	2
VII	0	0	3	1
VIII	0	1	0	2
IX	6	8	0	1
X	0	0	_1_	0
TOTAL	18	19	21	13

TABLE H-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1972.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	0
II	0	0	0	0
III 5	0	0	0	3
IV	0	0	2	31
V	0	0	1	4
VI	2	0	2	17
VII	0	0	1	5
VIII	0	0	0	3
IX	0	0	0	15
X	0	_1_	1	3
TOTAL	2	1	7	81

TABLE 1-1
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGION AND STATES IN 1972.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAI WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	0
MAINE	0	0	0	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	o	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 1972.

**PROFESSIONAL** 

**PROFESSIONAL** 

OR SEMI-

UNKNOWN

NOT CLASSIFIED

TOTAL

SKILLED OR UNSKILLED

**LABORER** 

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	0
MAINE	0	0	0	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 1-2

QBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

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

0

0

**NEW JERSEY** 

TABLE I-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

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

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	0	0	0
NEW YORK	0	0	0	0
NEW JERSEY	0	0	0	0

TABLE I-3
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	0	0	3	0

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	0	0	3	0
PENNSYLVANIA	0	0	0	0
DELAWARE	0	0	3	0
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	0	0	0	0
WEST VIRGINIA	0	0	0	0

TABLE I-3 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

SKIL	LED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	0	0	0	3
PENNSYLVANIA	0	0	0	0
DELAWARE	0	0	0	3
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	0	0	0	0
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 1972.

COMMERCIAL

**FARMERS** 

**AGRICULTURAL** 

**PESTICIDE** 

		FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	APPLICATOR	IAWILKS	WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
54	REGION IV	9	3	10	7
	NORTH CAROLINA	0	0	0	0
	SOUTH CAROLINA	0	1	0	0
	GEORGIA	9	0	3	2
	FLORIDA	0	2	0	5
	KENTUCKY	0	0	4	0
	TENNESSEE	0	0	2	0
	ALABAMA	0	0	1	0
	MISSISSIPPI	0	0	0	0

TABLE I-4 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

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

	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	0	0	2	31
NORTH CAROLINA	0	0	2	2
SOUTH CAROLINA	0	0	0	1
GEORGIA	0	0	0	14
FLORIDA	0	0	0	7
KENTUCKY	0	0	0	4
TENNESSEE	0	0	0	2
ALABAMA	0	0	0	1
MISSISSIPPI	0	0	<i>"</i> <b>0</b>	0

TABLE I-5
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	2	0	1	0
ОНІО	0	0	0	0
INDIANA	0	0	0	0
ILLINOIS	2	0	1	0
MICHIGAN	0	0	0	0
WISCONSIN	0 0	0	0	0

0

MINNESOTA

TABLE I-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

		SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
57	REGION V	0	0	1	4
	OHIO	0	0	0	0
	INDIANĀ	0	0	0	0
	ILLINOIS	0 .	0	0	3
	MICHIGAN	0	0	0	0
	WISCONSIN	0	0	0	0
	MINNESOTA	0	0	1	1

TABLE I-6

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	<b>FARMERS</b>	AGRICULTURAL WORKER
		OBSERVED.	OBSERVED	QBSERVED	OBSERVED
58	REGION VI	1	7	3	2
	ARKANSAS	0	0	0	0
	LOUISIANA	0	2	0	0
	OKLAHOMA	0	0	0	1
	TEXAS	1	5	1	1
	NEW MEXICO	0	0	2	0

TABLE I-6 (CONTINUED) OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

	SKILLED OR UNSKIL LABORER	LED PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION	ŲI 2	0	2	17
G Arka	ISAS 0	0	0	0
LOUI	SIANA 0	0	<b>(</b> 0	2
OKLA	IOMA O	0	0	1
TEXA	2	0	2	12
NEW	MEXICO O	0	0	2

TABLE I-7

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
60	REGION VII	0	0	3	1
	IOWA	0	0	1	0
	MISSOURI	0	0	0	0
	NEBRASKA	0	0	1	0
	KANSAS	0	0	1	1

TABLE I-7 (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 1972.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	0	0	1	5
IOWA	0	0	1	2
MISSOURI	0	0	0	0
NEBRASKA	0	0	0	1
KANSAS	0	0	0	2

TABLE I-8

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
62	REGION VIII	0	1	0	2
	NORTH DAKOTA	0	0	0	1
	SOUTH DAKOTA	0	0	0	0
	MONTANA	0	0	0	0
	WYOMING	0	0	0	0
	COLORADO	0	1	0	0

0

0

UTAH

TABLE I-8 (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
	OBSER <u>V</u> ED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	3
NORTH DAKOTA	0	0	0	1
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	Ó	0	0
COLORADO	0	0	0	1
UTAH	0	0	0	1

AND STATES IN 1972.

TABLE 1-9
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER .	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
64	REGION IX	6	8	0	1
	CALIFORNIA	3	3	0	1 ·
	ARIZONA	3	5	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 1972.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	0	0	0	15
CALIFORNIA	0	0	0	7
ARIZONA	0	0	0	8
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 1972.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER .	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
66	REGION X	0	0	1	0
	IDAHO	0	0	0	0
	WASHINGTON	0	0	0	0
	OREGON	0	0	1	0
	ALASKA	0	0	0	0

TABLE I-10(CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1972.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	1	1	3
IDAHO	0	1	1	2
WASHINGTON	0	0	0	0
OREGON	0	0	0	1
ALASKA	0	0	0	0

TABLE J

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1973.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	2	0
II	0	0	2	1
g III	0	0	0	0
IV	6	8	10	6
٧	1	3	1	0
VI	· 3	8	8	0
VII	0	0	0	2
VIII	0	0	4	0
IX	0	6	2	2
X	_1_	_1_	_1_	2
TOTAL	11	26	30	13

TABLE J (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1973.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI-	UNKNOWN OR NOT CLASSIFIED	TOTAL
		PROFESSIONAL		
I	2	0	0	4
II	0	0	0	3
III	0	0	2	2
IV	2	1	7	40
<b>v</b> .	1	0	0	6
VI	5	1	2	27
VII	1	0	1	4
VIII	0	0	0	4
IX	1	0	1	12
X	_1_	0	0	6
TOTAL	13	2	13	108

TABLE K-1

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
70	REGION I	0	0	2	0
	MAINE	0	0	2	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 1973.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	2	0	0	4
MAINE	1	0	0	3
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	1	0	0	1

TABLE K-2

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
72	REGION II	0	0	2	1
	NEW YORK	0	0	0	0
	NEW JERSEY	0	0	2	1

TABLE K-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	0	0	3
NEW YORK	0	0	0	0
NEW JERSEY	0	0	0	3

TABLE K-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

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

TABLE K-3 (CONTINUED)

OBSERVED NUMBER-OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

S	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
REGION III	0	0	2	2
PENNSYLVANIA	0	0	0	0
DELAWARE	0	0	0	0
MARYLAND	0	0	0	0
DISTRICT OF COLUM	BIA O	0	0	0
VIRGINIA	0	0	2	2
WEST VIRGINIA	0	0	0	0

TABLE K-4 OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

1

0

0

0

0

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	6	8	10	6
NORTH CAROLINA	0	0	4	2
SOUTH CAROLINA	0	0	0	2
GEORGIA	6	2	3	1
FLORIDA	0	6	0	1
KENTUCKY	0	0	1	0

0

0

0

**TENNESSEE** 

MISSISSIPPI

ALABAMA

0

0

TABLE K-4 (CONTINUED)

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

AND STATES IN 1973.

Alle		·····		
	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	2	1	7	40
NORTH CAROLINA	0	0	4	10
SOUTH CAROLINA	0	0	0	2
GEORGIA	0	1 -	3	16
FLORIDA	1	0	0	8
KENTUCKY	0	0	0	1
TENNESSEE	0	0	0	1
ALABAMA	1	0	0	2
MISSISSIPPI	0	0	0	0

TABLE K-5

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
78	REGION V	1	3	1	0
	OHIO	0	0	0	0
	INDIANA	0	1	0	0
	ILLINOIS	1	1	1	0
	MICHIGAN	0	1	0	0
	WISCONSIN	0	0	0	0

0

0

0

**MINNESOTA** 

TABLE K-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	]	0	0	6
OHIO	0	0	0	0
INDIANA	0	0	. 0	1
ILLINOIS	1,	0	0	4
MICHIGAN	0	0	0	1
WISCONSIN	0	0	0	0
MINNESOTA	0	0	0	0

TABLE K-6

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
80	REGION VI	3	8	8	0
	ARKĀNSĀS	0	0	0	0
	LOUISIANA	0	2	0	0
	OKLAHOMA	0	0	1	0
	TEXAS	3	6	6	0

NEW MEXICO

TABLE K-6 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

	KILLED PROFESSIONAL UNKNOWN OR OR SEMI- NOT CLASSIFIED PROFESSIONAL		
OBSERVED	OBSERVED	OBSERVED	OBSERVED
5	1	2	27
0	0	0	0
1	0	0	3
0	1	0	2
4	0	2	21
0	0	0	1
	5 0 1 0 4	5 1 0 0 1 0 1 4 0	5       1       2         0       0       0         1       0       0         0       1       0         4       0       2

TABLE K-7

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

AGRICULTURAL WORKER

PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER
ORSEDVED	OPCEDVED	OPSEDVED

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

TABLE K-7 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

_					
-		SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
-		OBSERVED	OBSERVED	OBSERVED	OBSERVED
- I	REGION VII	1	0	1	4
3	IOWA	0	0	0	0
	MISSOURI	1	0	0	2
	NEBRASKA	0	0	1	1
	KANSAS	0	0	0	1

TABLE K-8

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
84	REGION VIII	0	0	4	0
_	NORTH DAKOTA	0	0	2	0
	SOUTH DAKOTA	0	0	1	0
	MONTANA	0	0	0	0
	WYOMING	0	0	0	0
	COLORADO	0	0	0	0
	UTAH	0	0	1	0

TABLE K-8 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	4
NORTH DAKOTA	0	0	0	2
SOUTH DAKOTA	0	0	0	ì
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	0
UTAH	0	0	0	1

TABLE K-9
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
86	REGION IX	0	6	2	2
	CALIFORNIA	0	2	2	1
	ARIZONA	0	4	0	0
	NEVADA	0	0	0	0
	HAWAII	0	0	0	1

TABLE K-9 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1973.

		SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	REGION IX	1	0	1	12
	CALIFORNIA	0	0	1	6
87	ARIZONA	1	0	0	5
	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 1973.

		PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
		OBSERVED	OBSERVED	OBSERVED	OBSERVED
88	REGION X	1	1	1	2
	IDAHO	1	1	0	1
	WASHINGTON	0	0	0	1
	OREGON	0	0	1	0
	ALASKA	0	0	0	0

TABLE K-10(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 X	1	0	0	6
IDAHO	1	0	0	4
WASHINGTON	0	0	0	1
OREGON	0	0	0	1
ALASKA	0	0	0	0

AND STATES IN 1973.

	1971	1972	1973	
ORGANOPHOSPHATES	74	60	70	
CHLORINATED HYDROCARBON INSECTICIDES	5	9	13	
CHLORINATED HYDROCARBON HERBICIDES, FUNGICIDES, ETC.	5	4	5	
CARBAMATES, AMIDES & RELATED COMPOUNDS	7	5	12	
ARSENIC	3	1	1	
OTHER	6_	2	7	
TOTAL	100	81	108	

TABLE M-1

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

1971.

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	0	0	0	0	0	0	0
III	1	0	0	0	0	0	1
IV	32	1	3	4	2	2	44
V	3	0	1	0	0	0	4
VI	24	1	1	0	1	1	28
¥II	3	1	0	0	0	0	4
VIII	0	2	0	0	0	1	3
IX	9	0	0	2	0	0	11
X	_2_	0_	0_	_1_	. 0	_1_	4_
TOTAL	74	5	5	7	3	6	100

TABLE M-2

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

1972.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0	0	0	0	0	0	0
II	0	0	0	0	0	0	0
III	3	0	0	0	0	0	3
IV	23	5	1	1	1	0	31
I	3	0	1	0	0	0	4
/I	11	2	1	1	0	2	17
/II	2	1	1	1	0	0	5
/III	2	0	0	1	0	0	3
ΙX	14	0	0	1	0	0	15
	2_	_1_	0_	0	0_	0_	3_
OTAL	60	9	4	5	1	2	81

TABLE M-3

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

1973.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	1	2	0	1	0	0	4
II	2	0	0	1	0	0	3
III	2	0	0	0	0	0	2
IV	23	7	3	7	0	0	40
V	4	0	1	1	0	0	6
VI	19	3	1	2	0	2	27
VII	1	1	0	0	0	2	4
VIII	3	0	0	0	0	1	4
IX	10	0	0	0	1	1	12
X	5_	0	0	0_	0_	1	6
TOTAL	70	13	5	12	1	7	108

TABLE N-1

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

1971.

AGE GROUP	I	II	III	IV	٧	VI	VII	VIII	IX	X	U.S. TOTAL
0-4	3	3	13	17	36	13	6	2	. 31	3	127
5-9	0	0	6	1	1	1	0	0	0	0	9
10-14	0	0	0	3	1	4	0	1	2	1	12
15-19	0	0	0	9	3.	8	0	0	11	4	35
20-24	0	0	.0	3	2	4	2	1	10	0	22
25-34	1	1	1	14	3	6	2	1	13	0	42
35-44	1	0	1	12	3	7	2	0	8	1	35
45-54	0 -	1	0	6	1	- 5	0	.0	5	1	19
55-64	0	0	0	9	0	4	0	1	7	0	21
65 +	0	0	2	4	0	2	2	0	1	1	12
UNKNOWN	0	0	1	0	0	0	0	0	1	0	2
U.S. TOTAL	5	5	24	78	50	54	14	6	89	11	336

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TABLE N-2
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES,
1972.

AGE GROUP	I	II	III	IV	V	VI	VII	VIII	IX	Х	U.S. TOTAL
0-4	4	4	24	25	39	16	8	2	28	6	156
5-9	0	1	1	4	0	1	1	0	2	0;	10
10-14	0	0	0	7	1	5	1	0	0	0	14
15-19	0	0	1	4	5	6	0	1	8	1	26
20-24	0	1	2	6	2	5	1	1	15	0	33
25-34	0	2	5	12.	1	5	2	0	11	0	38
35-44	1	1	2	11	4	2	0	1	8	1.	31
45- <u></u> 54	0	1	2	6	2	4.	3	0	6,	1	25
55-64	0	0	0	3	0	3	1	1	2	1	11
65 +	0	0	3	7	2	3	1	3	3	2	24
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
U.S. TOTAL	5	10	40	85	56	50	18	9	83	12	368

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TABLE N-3
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES,
1973.

AGE GROUP	I	II	III	IV	٧	VI	VII	VIII	IX	X	U.S. TOTAL
0-4	1	5	9	15	36	9	10	2	39	4	130
5-9	2	0	3	0	2	1	0	0	0	0	8
10-14	1	0	3	5	1	6	0	1	0	0	17
15-19	3	2	3	13	4	11	5	1	6	1	49
20-24	0	0	2	9	3	5	0	1	7	2	29
25-34	1	0	1	4	2	13	3	1	8	4	37
35-44	1	1	0	13	2	4	2	1	10	2	36
45-54	0	1	0	7	3	3	3	1	4	2	24
55-64	0	0	2	6	4	3	0	0	3	0	18
65 +	0	0	3	0	2	2	3	1	4	5	20
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
U.S. TOTAL	9	9	26	72	59	57	26	9	81	20	368
	•										

TABLE 0-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE IN THE UNITED STATES IN 1971, 1972, AND 1973.

YEAR	OBSERVED NUMBER
1971	127
1972	156
1973	130
TOTAL	413

36

TABLE P-1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGIONS IN
1971, 1972, AND 1973.

EPA REGION	1971 OBSERVED NUMBER	1972 OBSERVED NUMBER	1973 OBSERVED NUMBER
I	3	4	1
II	3	4	5
III	13	24	9
IV	17	25	15
V	36	39	36
<b>VI</b>	13	16	9
VII	6	8	10
VIII	2	2	2
IX	31	28	39
<b>X</b>	3	6	4

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973
REGION I	3	4	1
MAINE	0	2	0
NEW HAMPSHIRE	0	0	0
VERMONT	0	0	0
MASSACHUSETTS	1	2	1
RHODE ISLAND	0	0	0
CONNECTICUT	2	0	0

TABLE Q-1

TABLE Q-2
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION II AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973
REGION II	3	4	5
NEW YORK	2	2	4
NEW JERSEY	1	2	1

TABLE Q-3
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION III AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973
REGION İII	13	24	9
PENNSYLVANIA	5	7	6
DELAWARE	2	0	0
MARYLAND	2	1	0
DISTRICT OF COLUMBIA	3	12	3
VIRGIŅIA	0	2	0
WEST VIRGINIA	1	2	0

TABLE Q-4
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN O-4 YEARS OF AGE, EPA REGION IV AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973
REGION IV	17	25 .	15
NORTH CAROLINA	2	7	2
SOUTH CAROLINA	0	1	2
GEORGIA	2	1	0
FLORIDA	5	1	2
KENTUCKY	3	6	2
TENNESSEE	2	3	3
ALABAMA	2	4	4
MISSISSIPPI	1	2	0

TABLE Q-5
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION V AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973	•
REGION V	36	39	36	
OHIO	5	7	7	
INDIANA	1	1	2	
ILLINOIS	13	19	18	
MICHIGAN	7	5	3	
WISCONSIN	4	3	3	
MINNESOTA	6	4	3	

TABLE Q-6
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VI AND STATES, 1971, 1972 AND 1973.

REGION AND STATE	1971	1972	1973
REGION VI	13	16	9
ARKANSAS	1	<b>3</b> ·	0
LOUISIANA	3	3	0
OKLAHOMA	1	0	0
TEXAS	7	9	9
NEW MEXICO	1	1	0

TABLE Q-7
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VII AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973	<del></del>
REGION' VII	6	8	10	
IOWA	2	3	2	
MISSOURI	1	2	2	
NEBRASKA	0	0	1	
KANSAS	3	3	5	

TABLE Q-8
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VIII AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973
REGION VIII	2	2	2
NORTH DAKOTA	0	1.	0
SOUTH DAKOTA	0	1	1
MONTANA	0	0	0
WYOMING	0	0	0
COLORADO	1	0	1
UTAH	1	0	0

TABLE Q-9
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION IX AND STATES, 1971, 1972, AND 1973.

REGION AND	STATE	1971	1972	1973	
REGION IX		31	28	39	<del></del>
CALIFORNI	<b>A</b>	30	26	36	
ARIZONA		1	2	2	
NEVADA		0	0	0	
HAWAII		0	0	1	

TABLE Q-10
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION X AND STATES, 1971, 1972, AND 1973.

REGION AND STATE	1971	1972	1973	
REGION X	3	6	4	
IDAHO	0	0 .	1	
WASHINGTON	2	3	1	
OREGON	1	3	2	
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 1971 - 1973.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	ORGANO PHOSPHATE	INORGANICS	CHLORINATED HYDROCARBON HERBICIDES	BOTANICAL	FLUORINATED PESTICIDE	MERCURY	U.S. TOTAL
0-4	1	0	0	0	0	0	0	0	1
5-9	0	0	0	0	0	0	1	0	1
10-14	0	0	0	0	0	0	0	0	0
15-19	3	1	0	0	1	0	0	0	4
20-24	0	0	1	0	0	1	0	0	2
25-34	2	1	1	0	0	0	0	1	4
35-44	0	0	1	1	0	0	0	0	2
45-54	0	1	0	1	0	0	0	0	2
55-64	0	2	0	1	0	0	0	0	2
65 +	1	1	0	0	0	0	0	0	3
U.S. TOTAL	. 7	6	3	3	1	1	1	1	23

TABLE R-2
OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE NON-OCCUPATIONAL GROUP, BY AGE
GROUP AND CHEMICAL CLASS IN THE UNITED STATES FOR 1971 - 1973.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	ORGANO PHOSPHATE	INORGANICS	CHLORINATED HYDROCARBON HERBICIDE	BOTANICAL	FLUORINATED PESTICIDE	MERCURY	U.S.	TOTAL
0-4	1	0	0	0	0	0	0	0	1	
5-9	0	0	0	0	0	0	1	0	1	
10-14	0	0	0	0	0	0	0	0	C	)
15-19	1	0	0	0	0	0	0	0	1	
20-24	0	0	0	0	0	0	0	0	O	)
25-34	0	1	0	0	0	0	0	0	1	
35-44	0	0	0	0	0	0	0	0	0	)
45-54	0	0	0	0	0	0	0	0	0	)
55-64	0	0	0	0	0	0	0	0	0	)
65 +	1	1	0	0	0	0	0	0	2	
U.S. TOTAL	3	2	0	0	0	0	1	0	6	,

TABLE R-3
OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE INTENTIONAL GROUP, BY AGE GROUP,
AND CHEMICAL CLASS IN THE UNITED STATES 1971 - 1973.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	ORGANO PHOSPHATE	INORGANICS	CHLORINATED HYDROCARBON HERBICIDE	BOTANICAL	FLUORINATED PESTICIDE	MERCURY	U.S.	TOTAL
0-4	0	0	0	0	0	0	0	0	C	)
5-9	0	0	0	0	0	0	0	0	C	)
10-14	Ŏ	0	0	0	0	0	0	0	C	)
<b>1</b> 5-19	2	0	0	0	1	0	0	0	3	3
20-24	0	0	1	0	0	1	0	0	2	2
25-34	2	0	0	0	0	0	0	1	3	3
35-44	0	0	1	1	0	0	0	0	2	2
45-54	0	1	0	1	0	0	0	0	2	2
55-64	0	1	0	1	0	0	0	0	2	2
65 +	0	1	0	0	0	0	0	0	1	
U.S. TOTAL	. 4	3	2	3	1	1	0	1	15	5

TABLE S-1

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION AND STATE	STANDARD ERROR
REGION I	26.5
MAINE	8.2
NEW HAMPSHIRE	0
VERMONT	0
MASSACHUSETTS	23.2
RHODE ISLAND	0
CONNECTICUT	9.6

TABLE S-2
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION AND STATE	STANDARD ERROR
REGION .II	26.4
NEW YORK	0.8
NEW JERSEY	17.2

TABLE S-3

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION III  PENNSYLVANIA  DELAWARE  MARYLAND  DISTRICT OF COLUMBIA  VIRGINIA  WEST VIRGINIA  38.9  31.3  4.4  7.0  19.3		REGION AND STATE	STANDARD ERROR
DELAWARE  MARYLAND  DISTRICT OF COLUMBIA  VIRGINIA  *  19.3		REGION III	38.9
MARYLAND DISTRICT OF COLUMBIA VIRGINIA  19.3		PENNSYLVANIA	31.3
DISTRICT OF COLUMBIA  VIRGINIA  19.3		DELAWARE	*
VIRGINIA 19.3	-1 -1	MARYLAND	3.2
	>	DISTRICT OF COLUMBIA	4.4
WEST VIRGINIA 0		VIRGINIA	19.3
		WEST VIRGINIA	0

<sup>\*</sup>NO STANDARD ERROR COULD BE DETERMINED FOR THIS STATE BECAUSE ALL OF THE OBSERVED POISONINGS IN DELAWARE WERE IDENTIFIED IN ONE HOSPITAL.

TABLE S-4
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION AND STATE	STANDARD ERROR
REGION IV	87.8
NORTH CAROLINA	4.7
SOUTH CAROLINA	2.3
GEORGIA	7.4
FLORIDA	3.4
KENTUCKY	1.9
TENNESSEE	2.7
ALABAMA	2.9
MISSISSIPPI	1.5

	REGION AND STATE	STANDARD ERROR
	REGION V	77.4
	OHIO	31.7
	INDIANA	9.3
116	ILLINOIS	61.0
<u> </u>	MICHIGAN	22.3
	WISCONSIN	13.1
	MINNESOTA	18.9

TABLE S-6
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION AND STATE	STANDARD ERROR
REGION VI	121.2
ARKANSAS	0
LOUISIANA	3.8
OKLAHOMA	17.2
TEXAS	117.1
NEW MEXICO	3.8

TABLE S-7
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION AND STATE	STANDARD ERROR
REGION VII	92.9
IOWA	12.9
MISSOURI	27.2
NEBRASKA	11.5
KANSAS	27.2

TABLE S-8

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION AND STATE	STANDARD ERROR
REGION VIII	24.8
NORTH DAKOTA	7.0
SOUTH DAKOTA	8.9
MONTANA	0
WYOMING	0
COLORADO	21.1
UTAH	3.5

TABLE S-9
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

	REGION AND STATE	STANDARD ERROR
,	REGION IX	123.0
	CALIFORNIA	117.8
	ARIZONA	34.7
	NEVADA	0
120	HAWAII	7.2

TABLE S-10
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1973 BY EPA REGION AND STATE.

REGION AND STATE	STANDARD ERROR
REGION X	37.4
IDAHO	20.0
WASHINGTON	21.3
OREGON	23.0
ALASKA	0