

*National Pesticide
Telecommunications
Network*

1996 Annual Report

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Telecommunications
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**1996 Annual Report:
April 1, 1996 - March 31, 1997**

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DISCLAIMER

Material presented in this report is based on information as provided to NPTN by individuals who have contacted NPTN for information or to report an incident. None of this information has been verified or substantiated by independent investigation by NPTN staff, laboratory analysis, or any other means. Thus, if a person alleges/reports a pesticide incident, it likely will be recorded as an incident by NPTN. NPTN qualifies the information by assigning a Certainty Index (CI; an indication of the degree of certainty that the purported incident was related to pesticide exposure) ranging from 1 = "definite" to 5 = "unrelated." NPTN makes no claims or guarantees as to the accuracy of the CI or other information presented in its reports, other than that NPTN has done its best to accurately document and report the information provided to NPTN.

National Pesticide Telecommunications Network
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Executive Summary - NPTN 1996 Annual Report

Note: For a complete record of the accomplishments of NPTN for the 1996 operational year, the reader is directed to: the 12 monthly reports and 4 quarterly reports (submitted earlier), in addition to the "1996 Annual Report." This annual report covers the NPTN grant year: April 1 through March 31.

Organizationally -

- During its second year of operation, NPTN hired 2.4 FTE pesticide specialists at the rank of Faculty Research Assistant, and began recruitment for 5.0 FTE pesticide specialists. One pesticide specialist (0.4 FTE) left NPTN for other professional opportunities.
- The Antimicrobial Complaint System (ACS) and the Ecological Incident Information System (EIS) were initiated at Oregon State University as sub-projects of NPTN. Additional funding was sought and obtained from U.S. EPA to allow expansion of service to include Saturdays.
- NPTN initiated development of a series of pesticide-related fact sheets. NPTN continued its weekly training sessions for pesticide specialists. Extensive efforts were put forth to market NPTN to a broader base of clientele. Resource files were updated and new hard copy and electronic resources were acquired.

Operationally -

- NPTN answered 19,571 calls during its second operational year. Seventy-eight percent of the inquiries were received between March and October, coinciding with that part of the year where most pest pressures are the highest. Table 3.1
- The majority of calls (91.7%) were for information only, i.e., not related to an incident; 6.2% related to exposure concerns, and 2.2% concerned other non-health-related pesticide incidents. Table 3.6
- By far the greatest number of calls (44.0%) were health-related, whereas 19.0% were for information about pesticide usage, and 8.2% were of a regulatory nature. Table 3.5. Examples of "health-related" calls include:
 - A woman has been storing granular pesticide in her trunk, because she says her house storage shed is not secure. Every time she gets in the car, she has nausea and stomach cramps. She says she can smell the pesticide very strongly in the car. What should she do?
 - Caller wanted to know whether it would be safe to eat navel oranges that may have had some drift from pesticide spraying on them. Caller concerned about possible toxicity from pesticides.
 - Caller wanted to know about the risk associated with the use of dursban to control fleas in her yard and in her home. The caller had a 4-month old infant in her home.
 - Is it safe for my children to play on the lawn after its treated for weeds?
 - PCO placed pesticide dust in the attic. Caller was concerned about effects on his wife's pregnancy.
- Of the 19,571 calls, 8.9% of calls (1,749) involved pesticide incidents, while 39.6% (7,757 calls) were for information about specific pesticide active ingredients or products, and 47.2% (9,243 calls) were for general information about pesticides and pesticide-related issues. Table 3.2. Examples of pesticide incidents calls include:
 - 18 Month old girl in hospital with skyrocketing liver enzymes. Father used flea shampoo on dog and hartz 2 in 1 on carpet. Pyrethrins. Could there be a connection?
 - Caller's cat died due to a pesticide used by a pest control operator. The PCO told him that cats are "hypersensitive" to pesticides. Is this true?
 - Had a bag of pesticide that broke open and he and another worker had to clean it up. They ended up going to the hospital with complaints of nausea, dizziness, and headaches.
 - PCO treated house today. She came home and found white powdery residue all over, including kitchen counters. PCO used several pesticides. What should she do?.

NPTN Executive Summary - 1996

- Of the 1,749 incident calls, 14.5% of the calls were assigned a certainty index of 1 or 2; thus, being judged to have been either definitely or probably caused by the pesticide in question. Table 3.11
- The active ingredient - chlorpyrifos - generated more inquiries (1,811) (corresponding to 9.3% of all calls, and 23.4% of pesticide-specific calls, to NPTN) than any other single active ingredient. Of these, 16.7% (303) were incident calls and 83.3% were inquiries for general information. Of the 303 chlorpyrifos incident calls, 14.2% were assigned a certainty index of 1 (definite) or 2 (probable). The relatively large number of calls about chlorpyrifos is likely related to its being one of the most widely used chemicals in and around the home. Table 3.9 and Figure 3.3
- For the remaining top 25 active ingredients involved in incidents, there were a total of 888 incidents, with 14.8% of them assigned a certainty index of 1 or 2. It is interesting to note that the proportion of chlorpyrifos incidents assigned a certainty index of 1 or 2 was not much different than for the remaining top 24 pesticides taken as a group. Most of the reported incidents involved humans (65.8%) and 14.5% involved animals. Table 3.10 and Figure 3.4
- All told, there were 1,836 victims involved in the incidents reported to NPTN - 61.9% were human, 18.5% animal, and 19.7% other (e.g., building, environment). Of the human victims, there were 34.9% male, 52.5% female, 10.8% groups, and 1.8% where gender was not stated. Table 3.13 and Table 3.14
- Of the 1,136 human victims in incident calls, information about symptoms was given for 971. Of these, 62.3% were symptomatic (symptoms matched those for pesticide in question), 14.9% were asymptomatic, and 22.8% reported atypical symptoms. Table 3.15
- Amongst the 1,136 human victims, there were three deaths reported, with one of incidents judged to have a certainty index of 1 or 2, making it likely that this death was a result of pesticide exposure. Of the 339 animal victims, there were 41 deaths, with 15 of the incidents assigned a certainty index of 1 or 2, indicating likely pesticide involvement. Table 3.16
- Victim ages were available for 715 of the 1,136 human victims. Sixty three and six tenths of a percent of the victims were between the ages of 25 - 64, 9.2% over age 64, and 27.1% were between the ages of 24 to less than 1 year. Table 3.17
- Most of the calls (85.6%; 16,743) to NPTN came from the general public, while 4.3% calls came from federal/state/local agencies, 3.0% from medical personnel, 2.7% from information providers, and 4.4% from consumer users. Table 3.4
- Most of the known locations (1,267) where incidents occurred were the home or yard (71.2%), while 9.1% were agriculturally related and 4.1% involved an office building or school. Table 3.11
- Most of the calls to NPTN (77.0%; 15,078) were answered by providing verbal information to the caller; other actions taken by pesticide specialists were to refer callers to EPA and SLA (6.9%), to County Extension Service (2.6%), Oregon Poison Center (0.2%), National Animal Poison Control Center (0.8%), Antimicrobial Complaint System (1.1%), and other organizations (5.6%). Some callers (5.8%) received information via mail or FAX. Table 3.7
- Most inquiries to NPTN were via telephone (18,901) - AT&T phone logs indicated that many more calls were placed to the NPTN 800# than could be answered by the number of pesticide specialists on staff. Table 3.3
- The largest number of calls were received from Texas, California, and New York - states ranked 3, 1, 2, respectively, in terms of population. Table 3.8, Figure 3.1
- By EPA region, 12.7% of the calls came from Region 6, 11.9% from Region 9, 11.8% from Region 4, 11.6% from Region 3, and 10.5% from Region 2. Figure 3.2

National Pesticide Telecommunications Network

1996 Annual Report

Note: The complete record of the accomplishments of NPTN for the 1996 operational year include the 12 monthly reports and 4 quarterly reports (submitted earlier), in addition to this "1996 Annual Report."

1. NPTN Mission Statement

The primary mission of the National Pesticide Telecommunications Network is to serve as a source of objective, science-based pesticide information on a wide variety of pesticide-related subjects, including:

- pesticide products
- recognition and management of pesticide poisonings
- toxicology
- environmental chemistry
- referrals for laboratory analyses, investigation of pesticide incidents, and emergency treatment
- safety practices
- health and environmental effects
- clean-up and disposal referrals.

A major goal of NPTN is to promote informed decision making on the part of the caller.

Service provided by NPTN is available from 6:30am - 4:30 pm Pacific Time, 5 days per week (excluding holidays), principally through a toll free telephone number available to anyone in the United States and its territories. NPTN is sponsored cooperatively by Oregon State University and the U.S. Environmental Protection Agency.

NPTN is open to questions from the public and professionals. It is staffed by highly qualified and trained pesticide specialists who have the toxicology and environmental chemistry training needed to provide knowledgeable answers to questions about pesticides. NPTN pesticide specialists deliver information in a user-friendly manner and are adept at communicating scientific information to the lay public. Pesticide specialists can help callers interpret and understand toxicology and environmental chemistry information about pesticides. The service provided by NPTN and its associated projects are strictly informational and have no regulatory or enforcement capabilities.

1.1 Objectives

The stated objectives of NPTN are:

- 1) To operate a toll free telephone service to callers in the United States, Puerto Rico, and the Virgin Islands. A recording device is provided to capture off-hour calls.
- 2) To serve as a source of factual, unbiased information on pesticide chemistry, toxicology, and environmental fate to all who call including industry, government, medical, and agricultural personnel, as well as the general public.
- 3) To provide the medical community with diagnostic and crisis management assistance involving pesticide incidents in situations pertaining to both human and animal patients.
- 4) To acquire accurate and complete information on all calls considered to be pesticide incidents.
- 5) To computerize all call information as well as pesticide incident data for easy retrievability.

1.2 History

The pesticide information service began in 1978 with the Texas Tech University Health Sciences center associated Pesticide Hazard Assessment Project (PHAP) in San Benito, Texas. This service was originally used to report pesticide incidents in EPA Region VI through the Pesticide Incident Monitoring System (PIMS). Later, callers from across the U.S. began using the service to obtain information on pesticides. In 1980, the network was designated as the National Pesticide Information Clearinghouse (NPIC). In 1984, the NPIC added the 24 hour responsibilities of South Carolina's National Pesticide Telecommunications Network (NPTN) and changed its name to NPTN. The NPTN system remained in San Benito until April 1985 when it moved to the Department of Preventive Medicine and Community Health of the Texas Tech University Health Sciences Center in Lubbock, Texas. NPTN remained at Texas Tech through March, 1995. Following a competitive renewal process for the grant supporting the Cooperative Agreement between the U.S. Environmental Protection Agency and the co-sponsoring university, NPTN moved to Oregon State University on April 1, 1995.

1.3 Inquiries and Resources

NPTN receives inquiries from across the U.S. and from Puerto Rico, the Virgin Islands, Canada, Mexico, and numerous other countries. Most of the inquiries to NPTN are from the general public. The nature of the inquiries range from requests for information about: health implications of pesticide use; pesticide toxicology, environmental chemistry, regulations, and use practices; product information; environmental effects of pesticides; pesticide safety, protective equipment, cleanup and disposal; pesticide regulations; and current pesticide-related issues in the news.

NPTN maintains an extensive collection of hard-copy and electronic resources for pesticide information, used as necessary by the pesticide specialists in answering inquiries. Included in this

collection are: NPTN's AI file containing information on over 200 pesticide active ingredients; numerous compendia of pesticide information (e.g., Handbook of Pesticide Toxicology, Code of Federal Regulations - 40 CFR Parts 150 - 189, Pest Control Operations, Toxicology - The Science of Poisons, Farm Chemicals Handbook, WHO Environmental Health Criteria series, Herbicide Handbook, The Pesticide Manual, Common-Sense Pest Control, pesticide product labels - to name but a few); electronic access to EXTOXNET (EXtension TOXicology NETwork), CHEMBANK (HSDB, RTECS, IRIS), and PESTBANK; and on-line literature searching (e.g., Medline, Toxline).

1.4 Associated Projects

In addition to its basic service described above, NPTN administers two related sub-projects - EIIS (Ecological Incident Information System) and ACS (Antimicrobial Complaint System). ACS provides information (via its own toll free line) to medical professionals and the public on disinfectants, sanitizers, and sterilants, each classified as pesticides by the U.S. EPA. EIIS provides information to U.S. EPA on pesticide incidents involving wildlife.

1.5 Funding

Funding for NPTN, EIIS, and ACS is provided principally by the U.S. Environmental Protection Agency, with substantial support being provided by Oregon State University in the form of cost sharing, salary support, and facilities.

2. Update

2.1 Personnel Update

During the 1996 operational year, NPTN hired 2.0 full-time and one part-time (0.4 FTE) pesticide specialists and began recruitment for five full-time pesticide specialists. During this time, 0.4 FTE pesticide specialist left NPTN for other professional opportunities.

2.2 Call Update

NPTN responded to 19,571 telephone inquiries, 1749 of which were classified as incidents. Incident calls were reviewed by Dr. Sheldon Wagner and/or the Operations Manager. A pesticide spill, a misapplication, a contamination of a non-target entity, or any purported exposure to a pesticide (regardless of injury) is classified as an incident (regardless of certainty index). The certainty index is an estimate by NPTN as to whether the incident was either definitely (1), probably (2), possibly (3), or unlikely (4) to have been caused by exposure to a pesticide, or whether the incident was unrelated (5) to pesticides. A certainty index of 0 reflects those calls where the caller reported being exposed to a pesticide but no symptoms were present. Incidents with a certainty index of 1 or 2 are listed in NPTN's monthly reports.

2.3 Achievements

Facilities -

NPTN purchased and installed two network printers - a Hewlett Packard (HP) LaserJet 4V/4MV Post Script printer and an HP DeskJet 1600C printer, and Windows NT 4.0 software was installed on all the NPTN work station computers to provide networked computers for NPTN.

Operations -

The Antimicrobial Complaint System began operation May 20, 1996. The Ecological Incident Information System began operation at the end of June. NPTN began developing new log sheets and log sheet codes. Additional funding was obtained from EPA to allow NPTN to begin Saturday service in Spring, 1997.

Resources -

NPTN acquired the several pesticide-related reports, books, and documents, including: 1992 Pesticide Industry Sales and Usage, from US EPA, 1995-1996 Pesticide Directory from Thomson Publishing, US Golf Association Jan/Feb. 1995 Issue of Green Section, Books: Biomarkers of Human Exposure to Pesticides; The Dose Makes the Poison; Veterans and Agent Orange, an Update, 1996, EPA documents: "Chlorpyrifos and neuropathy," "Chlorpyrifos and domestic animals," "Ten Tips to Protect Children from Pesticides and Lead Exposure in the Home," and various RED documents.

Work continued on the reorganization and updating of the active ingredient files, including the addition of 15 new EXTTOXNET Pesticide Information Profiles, and on the updating of the label and MSDS files.

Project and Information Review -

NPTN began developing a series of fact sheets on pesticide active ingredients and pesticide-related issues and topics - the series was initiated by development of a permethrin fact sheet, similar in format to EXTTOXNET PIPs, but focused towards the NPTN audience. The NPTN training manual was updated. All NPTN work stations were provided with plastic encased resource sheets for quick access to log codes and common pest control product registration numbers and active ingredients.

Training -

Weekly group meetings, a principal training activity for pesticide specialists, were continued throughout the year. Various pesticide-related topics were provided by NPTN faculty and by invited speakers. Examples of topics include: One of the pesticide specialists who is a veterinarian discussed 3 articles from the J. Amer. Vet. Med. Assoc. (DEET and chickens; sulfur and sheep; and d-limonene and dog dip); Dr. Nancy Kerkvliet (OSU Extension Toxicologist) and Dr. Sheldon Wagner presented a seminar on multiple chemical sensitivity; Dr. Terry Miller gave a two-part seminar on the Food Quality Protection Act; Dr. Wagner gave a brief discussion concerning reports that some organophosphates (OPs) and pyrethroids are synergistic. He mentioned a paper published in the late 1980's that showed that some OPs provoke the toxicity of deltamethrin although carbamates do not.

Several pesticide specialists and the directors attended the 2,4-D Symposium put on by the 2,4-D Task Force. The antimicrobial specialist and a pesticide specialist visited the local hospital for training on glutaraldehyde and ethylene oxide procedures. The information specialist with Agricultural Chemistry Extension conducted training on RTECS (Registry of Toxic Effects of Chemical Substances).

Publicity -

The NPTN marketing effort was continued - activities included : Sent letter and brochure to State Departments of Agriculture and Poison Control Centers; The look of the NPTN brochure was changed; NPTN established an email address: nptn@ace.orst.edu; Submitted a small, generic article about NPTN to the Journal of Environmental Health and to ATSDR's Public Health and Hazardous Substances Newsletter; Developed and sent out a NPTN publicity letter and brochure to approximately 1000 groups, organizations, agencies, and magazines.

Other -

- Terry Miller, Jeff Jenkins, Sheldon Wagner, and Peggy Vogue went to Washington, DC March 13-14, 1997 to meet with Frank Davido and Sherri Street and other Office of Pesticide Programs staff.

3. Traffic Report

3.1 Traffic Report Narrative

NPTN answered 19,571 inquiries during its second year of operation (April 1996 - March 1997) at Oregon State University. A monthly summary of calls is provided in Table 3.1. Also included in Table 3.1 is a listing of the total number of calls by calendar year, including 1996. The types of calls received by NPTN are shown in Table 3.2.

The means by which people contact NPTN is shown in Table 3.3. The telephone is by far the most important contact route. The variety of callers to NPTN is shown in Table 3.4. The predominant number of calls received by NPTN are from the general public. The types of questions posed to the NPTN Pesticide Specialists are sorted in Table 3.5. Most of the callers requested information about health related issues. Most of these information calls and the others listed in Table 3.5 were prompted by concern/knowledge of the caller (Table 3.6). The reasons for incident calls are also shown in Table 3.6. The outcome of most calls to NPTN is that the caller receives verbal information from a Pesticide Specialist (Table 3.7). A large number of callers receive written information as well as verbal information. In addition, many calls are forwarded onto either EPA, NPMMP (National Pesticide Medical Monitoring Program), or a state lead agency (such as the Department of Agriculture).

The callers to NPTN represent all 50 states as well as Canada and other foreign nations. Table 3.8 show the number of calls from each of the states, Puerto Rico, the Virgin Islands, and other locations. The 10 states from which most of the calls are from is presented in Figure 3.1. Residents from Texas, California, and New York initiate the greatest number of calls. Also shown in Table 3.8 and presented graphically in Figure 3.2 are the number of calls from each of the EPA regions.

Questions or comments about chlorpyrifos generate a greater number of calls to NPTN than any other pesticide active ingredient. The total number of calls as well as the number of information and incident calls for the 25 most asked about pesticide active ingredients is presented in Table 3.9. For incident calls, the value shown in parentheses indicates the number of incidents with a certainty index of 1 (definite) or 2 (probable). The 10 active ingredients mentioned most often in calls is graphically represented in Figure 3.3. The 25 active ingredients most frequently mentioned in incident calls are listed in Table 3.10. Incident calls are further represented by victim type. The 10 active ingredients most often mentioned in incident calls are graphically represented in Figure 3.4.

The locations where pesticide exposures were purported to have taken place are shown in Table 3.11. The environmental impact of the pesticides involved in incidents is shown in Table 3.12.

The incident calls are further categorized by whether the incident involved a human, animal, or building/other. Incidents are further classified in Table 3.13. The incident calls for each victim type are categorized by the certainty index. The certainty index is an estimate by NPTN as to whether the incident was either definitely (1), probably (2), possibly (3), or unlikely (4) to have been caused by exposure to a pesticide, or whether the incident was unrelated (5) to pesticides. A certainty index of 0 reflects those calls where the caller reported being exposed to a pesticide but no symptoms were present. For human victims presented in Table 3.13, the certainty index is further categorized by gender or group.

Table 3.14 lists the descriptions for the victims involved in incidents in the 1995 NPTN operational year. Reported symptoms are shown in Table 3.15. The number of deaths, life threatening, or interesting/strange cases due to a potential pesticide exposure is shown in Table 3.16. Victim ages are provided in Table 3.17.

3.2 Traffic Report Tables and Figures

Table 3.1 NPTN Monthly Telephone Calls

Month	Number of Calls					
	1995	1996	1996	1997	1998	1999
April	1,560	2,015				
May	1,494	2,215				
June	1,612	2,111				
July	1,763	2,114				
August	2,004	1,950				
September	1,633	1,638				
October	1,699	1,642				
November	1,289	1,094				
December	895	858				
January	1,098	1,114				
February	1,217	1,263				
March	1,511	1,557				
Calendar ¹ Year Total =	13,949	19,463				
Grant ² Year Total =	17,775	19,571				

¹April 1 through December 31 for 1995; January 1 through December 31, other years.

²April 1 through March 31.

Table 3.2 Summary of Types of Calls Received by NPTN

Type of Call	Number of Calls				
	1995	1996	1997	1998	1999
Information - Specific Pesticide	7,215	7,757			
Information - General Pesticide	7,973	9,243			
Incidents	1,944	1,749			
Human Victims	1,327	1,067			
Animal Victims	276	327			
Building/Other	331	355			
Other - Non-Pesticide	643	822			
Grant Year Total =	17,775	19,571			

Table 3.3 Means to Contact NPTN

Origin of Call	Number of Calls				
	1995	1996	1997	1998	1999
Telephone	17,104	18,901			
Voice Mail	373	455			
Mail	117	129			
Walk In	7	10			
Other	174	76			
Grant Year Total =	17,775	19,571			

Table 3.4 Type of Caller to NPTN

Type of Caller	Number of Calls				
	1995	1996	1997	1998	1999
General Public	15,357	16,743			
Federal/State/Local Agency					
Health Agency	122	101			
Government Agency	360	446			
Enforcement Agency	39	50			
Schools/Libraries	239	222			
Fire Department	27	26			
Medical Personnel					
Human Medical	336	423			
Animal Vet./Clinic	92	147			
Migrant Clinic	9	10			
Information Groups					
Media	127	165			
Unions/Info. Service	51	96			
Environmental Org.	119	139			
Pesticide Mfg./Mktg. Co.	128	136			
Consumer Users					
Lawyer/Insurance	98	143			
Lab./Consulting	222	176			
Pest Control	186	167			
Retail Store	55	49			
Farm	51	65			
Other	157	267			
Grant Year Total =	17,775	19,571			

Table 3.5 Types of Questions Asked by Callers to NPTN

Type of Question	Number of Calls				
	1995	1996	1997	1998	1999
Health Related					
Health	8,225	8,363			
Treatment	172	158			
Testing Lab.	73	97			
Usage Information					
Pest/Crop	1,211	1,267			
Chemical	912	1,202			
Pros and Cons	162	181			
Safety/Application	278	655			
Cleanup	273	283			
Harvest Intervals	143	69			
Lawn Care	58	51			
Compliance					
Regulations	1,107	1,201			
Complaints	223	233			
Disposal	210	166			
General	1,519	1,845			
NPTN Questions	973	1,033			
Non-Pesticide Related	460	127			
Other	1,776	2,640			
Grant Year Total =	17,775	19,571			

Table 3.6 Reason for Inquiry to NPTN

Reason for Inquiry	Number of Calls				
	1995	1996	1997	1998	1999
Information Calls					
Concern/Knowledge	15,019	17,313			
Incident Calls					
Exposures					
Dermal - Acute	249	239			
Dermal - Chronic	34	32			
Ingestion - Acute	160	175			
Ingestion - Chronic	7	8			
Inhalation - Acute	244	241			
Inhalation - Chronic	45	61			
Exposure Possible	445	357			
Exposure/Unknown/Many	72	54			
Occupational	79	39			
Accidents					
Misapplic. - Homeowner	152	116			
Misapplic. - PCO	132	84			
Misapplic. - Other	31	22			
Spill - Indoor	65	47			
Spill - Outdoor	24	18			
Contamination - Home	37	25			
Contamination - Other	36	26			
Drift	81	81			
Fire - Home	3	2			
Fire - Other	3	0			
Industrial Accident	0	0			
Odor Only	53	80			
Testing Laboratory	6	2			
Other	103	76			
N/A-Unknown	695	473			
Grant Year Total =	17,775	19,571			

Table 3.7 Action Taken by NPTN

Action Taken	Number of Calls				
	1995	1996	1997	1998	1999
Verbal Information	11,590	15,078			
Referrals to:					
EPA, State Lead Agencies, National Pesticide Medical Monitoring Program	1,763	1,363			
County Extension	711	500			
Oregon Poison Center	69	45			
National Animal Poison Control Center	100	152			
Antimicrobial Complaint System	103	208			
Other Organizations	2,001	1,086			
Mailed Information, Brochure, Publication	1,098	802			
Other/FAXED Information	340	337			
Grant Year Total =	17,775	19,571			

Table 3.8 Listing of States and Foreign Nations Using NPTN During 1996 Operational Year

EPA Region	State Code	State	Number of Calls
		Not recorded	2,769
10	AK	Alaska	24
4	AL	Alabama	131
6	AR	Arkansas	91
9	AZ	Arizona	175
9	CA	California	2,022
FN	CN	Canada	82
8	CO	Colorado	310
1	CT	Connecticut	386
3	DC	District of Columbia	251
3	DE	Delaware	43
4	FL	Florida	964
FN	FN	Foreign	27
4	GA	Georgia	302
9	HI	Hawaii	77
7	IA	Iowa	97
10	ID	Idaho	76
5	IL	Illinois	439
5	IN	Indiana	149
7	KS	Kansas	170
4	KY	Kentucky	173
6	LA	Louisiana	150
1	MA	Massachusetts	820
3	MD	Maryland	572
1	ME	Maine	40
5	MI	Michigan	260
5	MN	Minnesota	179
7	MO	Missouri	282
4	MS	Mississippi	69
8	MT	Montana	58
4	NC	North Carolina	370

Table 3.8 Listing of States and Foreign Nations Using NPTN During 1996 Operational Year (continued) -

EPA Region	State Code	State	Number of Calls
8	ND	North Dakota	9
7	NE	Nebraska	58
1	NH	New Hampshire	91
2	NJ	New Jersey	361
6	NM	New Mexico	76
9	NV	Nevada	58
2	NY	New York	1,686
5	OH	Ohio	393
6	OK	Oklahoma	106
10	OR	Oregon	715
3	PA	Pennsylvania	812
2	PR	Puerto Rico	16
1	RI	Rhode Island	53
4	SC	South Carolina	121
8	SD	South Dakota	23
4	TN	Tennessee	177
6	TX	Texas	2,059
8	UT	Utah	32
3	VA	Virginia	510
1	VT	Vermont	46
10	WA	Washington	345
5	WI	Wisconsin	170
3	WV	West Virginia	72
8	WY	Wyoming	24
		Grant Year Total =	19,571

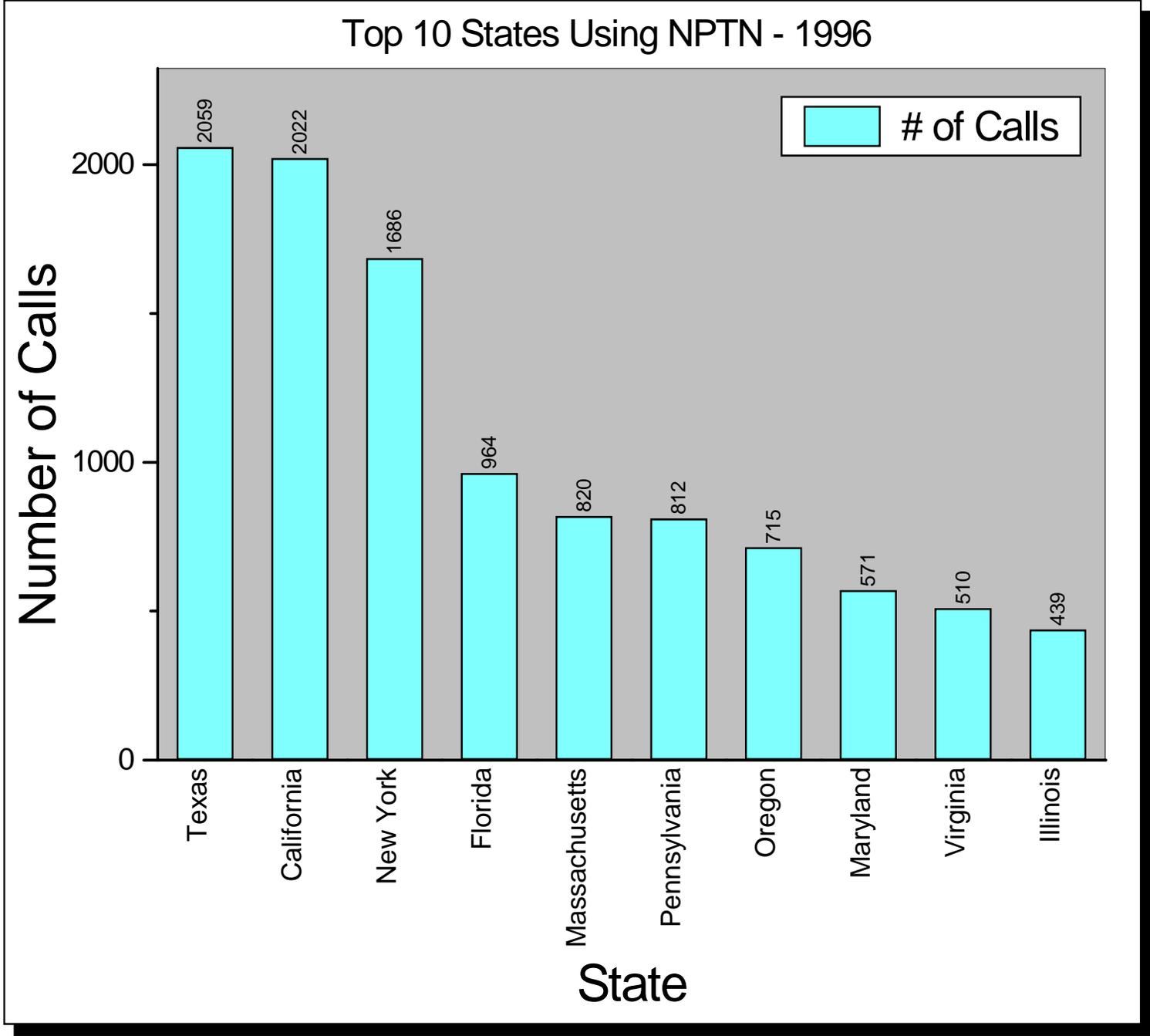


Figure 3.1 Top 10 States Using NPTN

Calls to NPTN by EPA Region - 1996

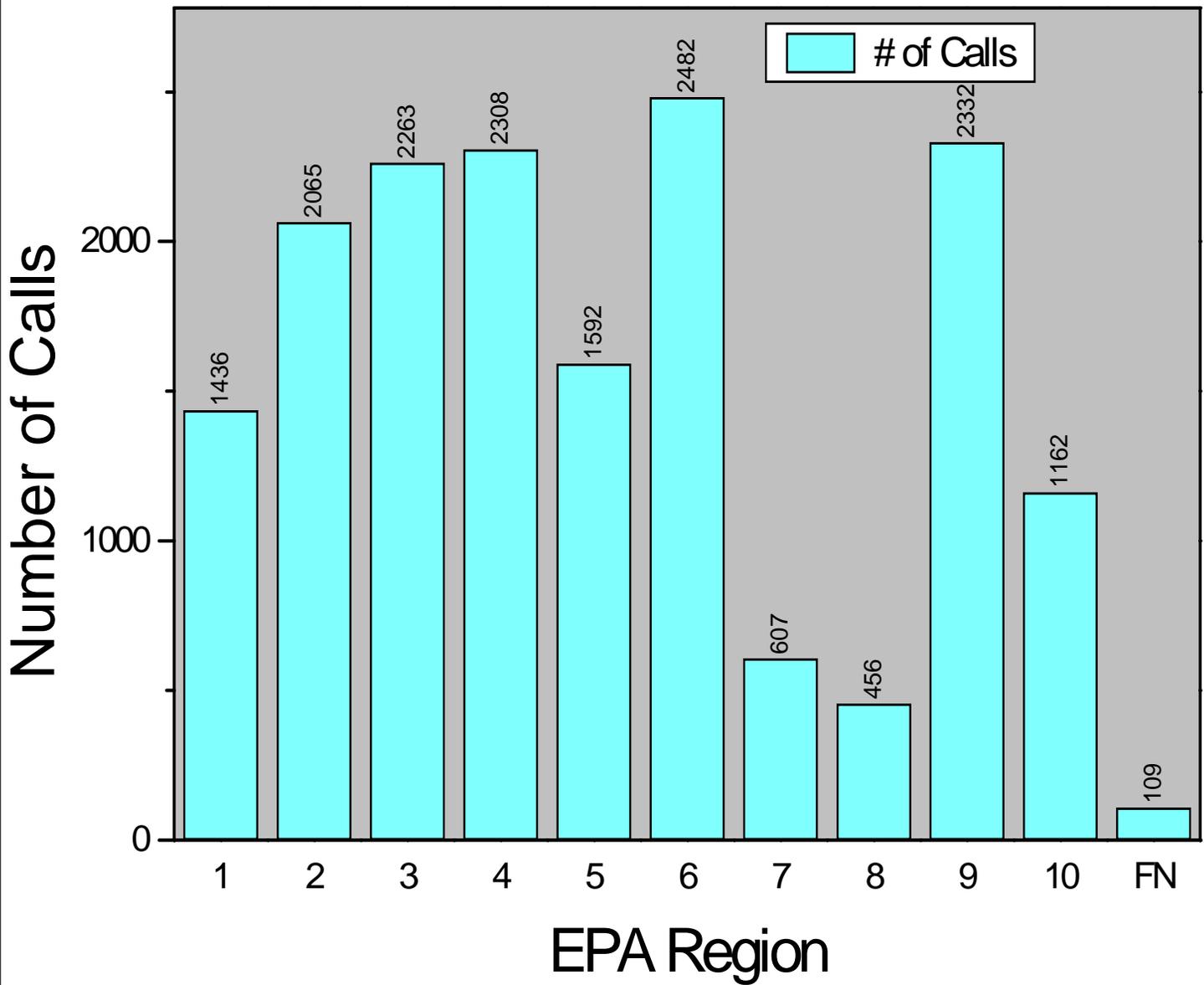


Figure 3.2 Calls to NPTN by EPA Region

Table 3.9 Top 25 Active Ingredients for All Calls to NPTN in the 1996 Operational Year

Active Ingredient	Total Calls	Incident Calls ¹⁾	Information Calls
Chlorpyrifos	1,811	303 (43)	1,511
Permethrin	722	67 (16)	657
Diazinon	621	129 (26)	492
Pyrethrins	565	84 (19)	484
Bendiocarb	429	36 (2)	394
Boric Acid	428	35 (2)	394
Cyfluthrin	387	60 (6)	327
Cypermethrin	332	40 (5)	293
Glyphosate	308	52 (3)	256
Chlordane	270	36 (2)	234
Carbaryl	265	53 (14)	212
Malathion	253	66 (14)	187
Imidacloprid	246	19 (2)	228
Sulfuryl Fluoride	199	13 (1)	186
2,4-D	194	43 (5)	151
Methoprene	143	8 (0)	136
Propetamphos	143	20 (3)	123
Acephate	130	32 (2)	99
Hydramethylnon	124	15 (1)	109
Esfenvalerate	121	8 (1)	113
DEET	119	26 (2)	93
DDT	95	6 (0)	89
Propoxur	82	12 (2)	70
Pendimethalin	81	19 (1)	62
Lindane	79	9 (2)	70
Total - Above Pesticides =	8,147	1,191 (174)	6,970
All Other Pesticides =	1,373	558	796

¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).

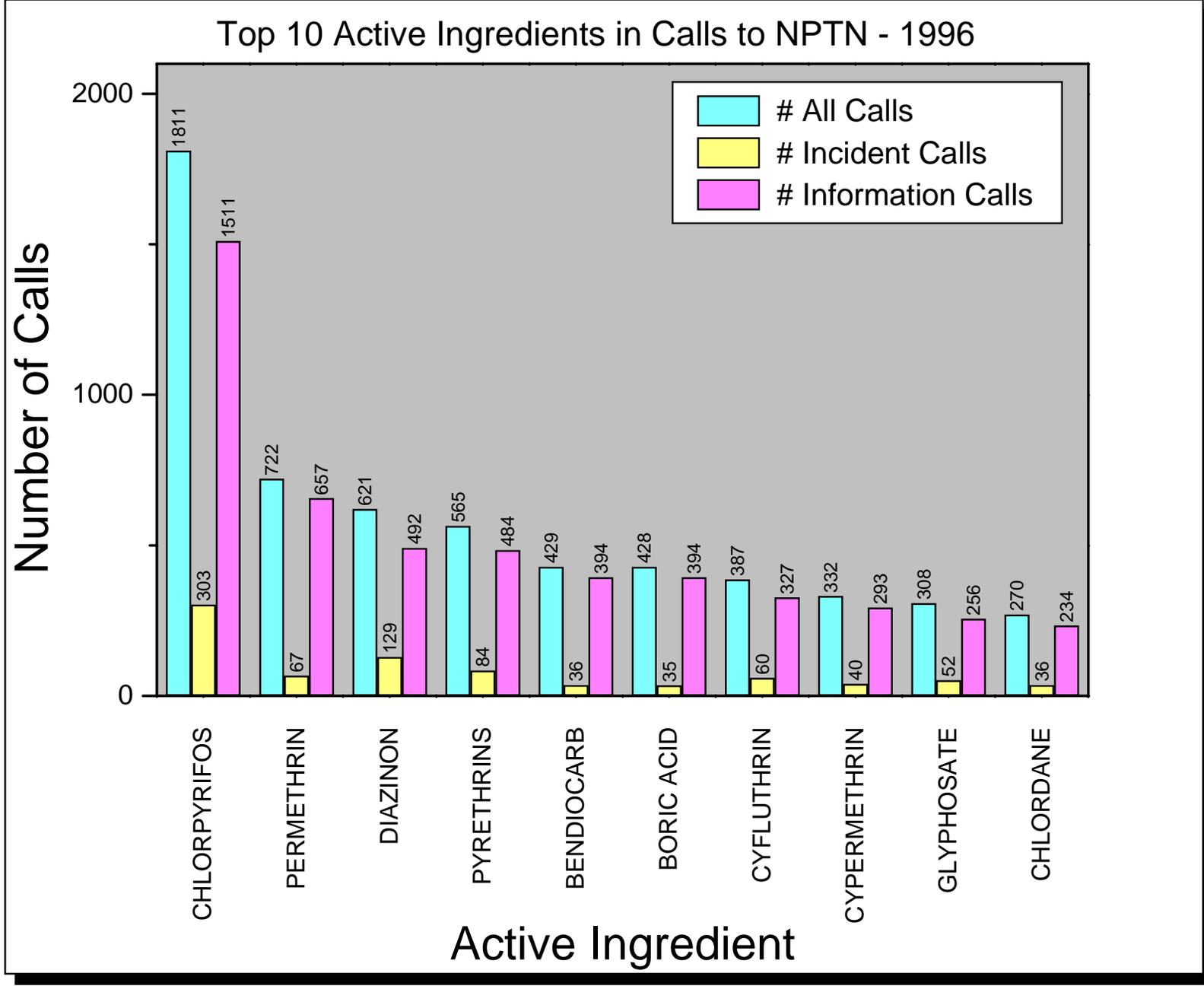


Figure 3.3 Top 10 Active Ingredients in All Calls

Table 3.10 Top 25 Active Ingredients for Incident Calls in the 1996 Operational Year

Active Ingredient	Total Incidents¹⁾	Human Incidents	Animal Incidents	Other Incidents	Information Calls
Chlorpyrifos	303 (43)	217 (36)	37 (6)	49 (1)	1,511
Diazinon	129 (26)	81 (20)	15 (6)	33 (0)	492
Pyrethrins	84 (19)	62 (14)	14 (5)	8 (0)	484
Permethrin	67 (16)	50 (13)	6 (3)	11 (0)	657
Malathion	66 (14)	36 (10)	4 (2)	26 (2)	187
Cyfluthrin	60 (6)	42 (4)	8 (2)	10 (0)	327
Carbaryl	53 (14)	34 (9)	9 (5)	10 (0)	212
Glyphosate	52 (3)	32 (2)	9 (1)	11 (0)	256
2,4-D	43 (5)	18 (3)	9 (1)	16 (1)	151
Cypermethrin	40 (5)	27 (3)	7 (2)	6 (0)	293
Bendiocarb	36 (2)	26 (2)	5 (0)	5 (0)	394
Chlordane	36 (2)	22 (2)	0 (0)	14 (0)	234
Boric Acid	35 (2)	24 (2)	7 (0)	4 (0)	394
Acephate	32 (2)	23 (2)	1 (0)	8 (0)	99
DEET	26 (2)	22 (2)	2 (0)	2 (0)	93
Propetamphos	20 (3)	17 (3)	1 (0)	2 (0)	123
Pendimethalin	19 (1)	9 (1)	4 (0)	6 (0)	62
Imidacloprid	19 (2)	9 (0)	5 (2)	5 (0)	228
Bromadiolone	16 (2)	3 (1)	13 (1)	0 (0)	17
Hydramethylnon	15 (1)	9 (0)	6 (1)	0 (0)	109
Sulfuryl Fluoride	13 (1)	12 (1)	0 (0)	1 (0)	186
Propoxur	12 (2)	9 (2)	0 (0)	3 (0)	70
Diquat Dibromide	11 (0)	2 (0)	5 (0)	4 (0)	19
Metaldehyde	10 (2)	0 (0)	7 (2)	3 (0)	16
Methyl Parathion	10 (1)	8 (1)	1 (0)	1 (0)	48
Total - Above	1,207 (176)	794 (133)	175 (39)	238 (4)	6,662
All Other Pesticides	542	273	152	117	1,104

¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).

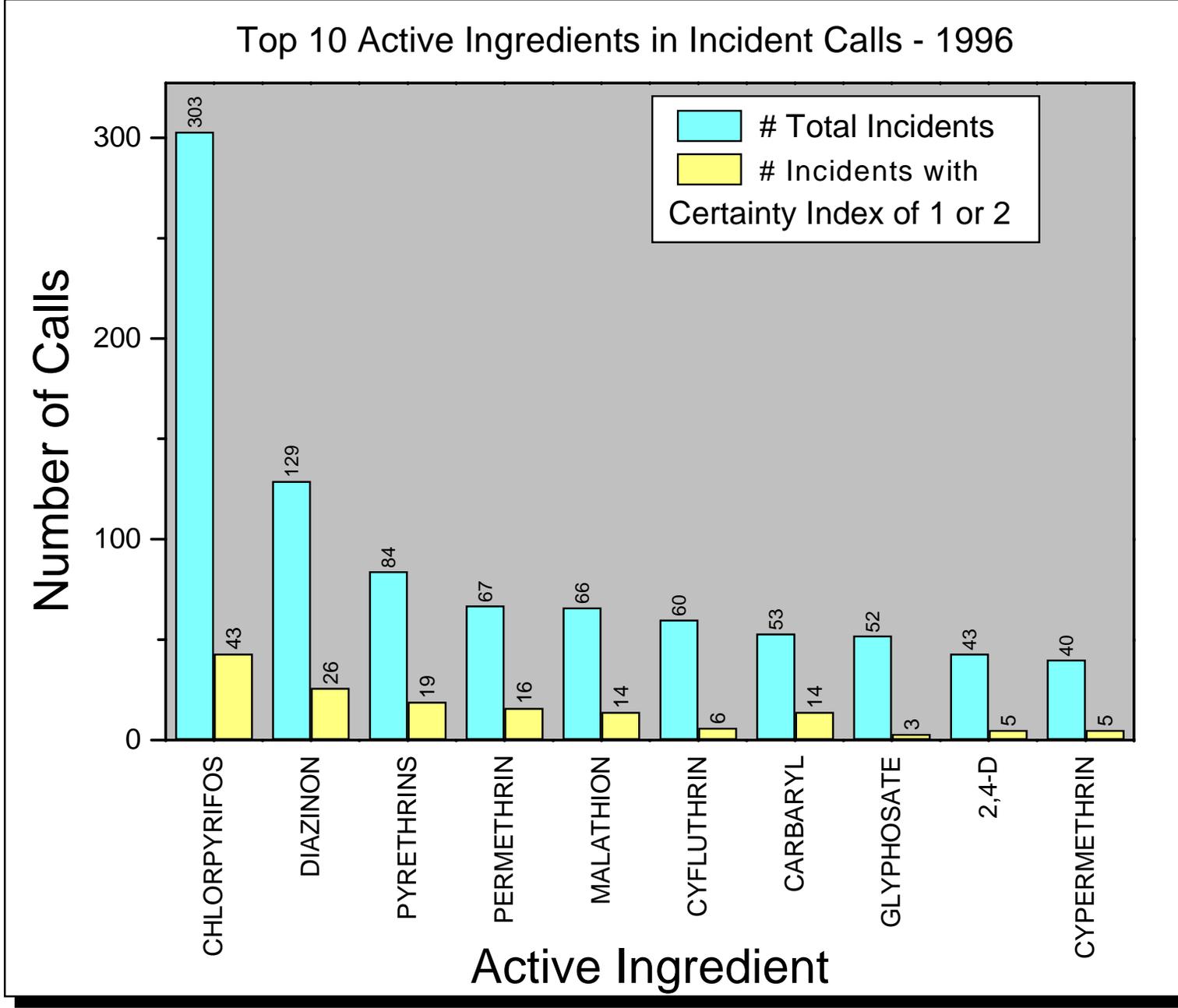


Figure 3.4 Top 10 Active Ingredients in Incident Calls

Table 3.11 Location Where Potential Exposure to a Pesticide Occurred

Location	Number of Incident ¹⁾ Calls				
	1995	1996	1997	1998	1999
Unclear/Unknown	975 (139)	482 (40)			
Home or Yard	730 (152)	902 (152)			
Agriculturally Related	92 (19)	115 (21)			
Industrially Related	10 (2)	16 (3)			
Office Building, School	51 (9)	52 (9)			
Pond, Lake, Stream Related	8 (3)	4 (1)			
Nursery, Greenhouse	7 (1)	9 (1)			
Food Service/Restaurants	6 (3)	6 (0)			
Retail Store/Business	4 (2)	15 (6)			
Roadside/Right-of-Way	10 (1)	15 (0)			
Park/Golf Course	8 (0)	7 (1)			
Other	43 (16)	126 (20)			
Total =	1,944 (347)	1,749 (254)			

¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).

Table 3.12 Reported Environmental Impact from Pesticide Incidents Reported

Environmental Impact	Number of Incident ¹⁾ Calls				
	1995	1996	1997	1998	1999
Air	29 (6)	32 (4)			
Water	24 (5)	19 (1)			
Soil	17 (2)	22 (3)			
Food Crops/Process	68 (4)	60 (3)			
Property	105 (24)	131 (19)			
Poultry/Livestock	11 (2)	9 (4)			
Plants/Trees	31 (1)	26 (2)			
Not Applicable	1,647 (297)	1,431 (215)			
Other	11 (6)	19 (3)			
Total =	1,943 (347)	1,749 (254)			

¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).

Table 3.13 Incident Calls Sorted by Certainty Index for the 1996 Operational Year

CI for All Categories of Victims					Breakdown of Human Victim Incident Calls			
Certainty Index	Humans	Animals	Other	Total	Male	Female	Groups	Gender Not Stated
Total Calls in Operational Year = 19,571								
Non-Incident Calls = 18,352								
Information Only (0)	135	75	332	542	43	69	20	3
Definite (1)	21	12	5	38	10	9	2	0
Probable (2)	171	62	8	241	65	84	18	4
Possible (3)	512	103	14	629	182	253	67	10
Unlikely (4)	268	75	2	345	88	163	15	2
Unrelated (5)	29	12	0	41	9	18	1	1
Total =	1,136	339	361	1,836	397	596	123	20

Table 3.14 Description of Victims Involved in Reported Incidents

Description of Victims	Number of Victims				
	1995	1996	1997	1998	1999
All females -					
Female	625 (112)	562 (91)			
Female-pregnant	68 (5)	36 (2)			
Female suicide attempt	2 (1)	1 (0)			
Total all females =	695 (118)	599 (93)			
All males -					
Male	460 (103)	397 (75)			
Male suicide attempt	2 (1)	0 (0)			
Total all males =	462 (104)	397 (75)			
All groups -					
Family	144 (40)	90 (15)			
Non-family group	54 (13)	33 (5)			
Total all groups =	198 (53)	123 (20)			
Gender not stated -					
Child - sex unknown	33 (4)	16 (4)			
Adult - sex unknown	0 (0)	0 (0)			
Other - sex unknown	15 (1)	4 (0)			
Total gender not stated =	48 (5)	20 (4)			
Total all humans =	1,403 (280)	1,139 (192)			
All animals -					
Single animal	242 (66)	273 (57)			
Group of animals	50 (15)	47 (13)			
Wildlife	18 (4)	19 (4)			
Total all animals =	310 (85)	339 (74)			
Other victims:					
Building-home/office	134 (16)	147 (7)			
Other places	208 (9)	214 (6)			
Total other victims =	342 (25)	361 (13)			
Total all victims =	2,055 (390)	1,839 (279)			

¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).

Table 3.15 Reported Symptoms of Victims Involved in Incident Calls

Reported Symptoms	Number of Victims ¹⁾				
	1995	1996	1997	1998	1999
Human symptoms -					
Symptomatic	721 (263)	605 (187)			
Asymptomatic	258 (48)	145 (29)			
Atypical	264 (22)	221 (21)			
Total humans =	1,243 (333)	971 (237)			
Animal symptoms -					
Symptomatic	152 (81)	169 (70)			
Asymptomatic	77 (10)	78 (8)			
Atypical	53 (6)	54 (5)			
Total animals =	282 (97)	301 (83)			
Total symptoms =	1,525 (430)	1,272 (320)			

¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).

Table 3.16 Additional Outcomes for Victims Involved in Incident

Additional Outcome	Number of Victims ¹⁾				
	1995	1996	1997	1998	1999
Human deaths -					
Male	2 (0)	3 (1)			
Female	0 (0)	0 (0)			
Total human deaths =	2 (0)	3 (1)			
Animal deaths -					
Single animal	19 (10)	18 (7)			
Group of animals	12 (7)	13 (7)			
Wildlife	5 (2)	10 (1)			
Total animal deaths =	36 (19)	41 (15)			
Other -					
Life threatening	11 (7)	7 (4)			
Interesting/strange	42 (17)	50 (6)			
Total other =	53 (24)	57 (10)			
Total additional outcomes =	91 (43)	101 (26)			

¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).

Table 3.17 Reported Ages of Human Victims Involved in Incident

Age Category	Number of Victims				
	1995	1996	1997	1998	1999
Under 1 Year	27	24			
1 Year	19	25			
2 Years	23	30			
3 Years	11	8			
4 Years	9	15			
5 - 9 Years	20	41			
10 - 14 Years	21	17			
15 - 24 Years	32	34			
25 - 44 Years	201	257			
45 - 64 Years	115	198			
Over 64 Years	47	66			

4. Report on Subcontracts

4.1 Oregon Poison Center

NPTN pesticide specialists transferred 45 calls to the Oregon Poison Center. These calls were transferred to the center because the specialists deemed that the caller's situation represented an acute poisoning emergency. The NPTN Quarterly Reports presents a table for the calls transferred in that quarter.

4.2 National Animal Poison Control Center

In the current year, 152 calls were transferred to the National Animal Poison Control Center (NAPCC). The situation presented in each call was considered to be an emergency therefore the call was transferred to NAPCC.

5. Sub-Projects

5.1 Antimicrobial Complaint System (ACS)

A Faculty Research Assistant was hired as the Antimicrobial Specialist. After being inactive since April 1, 1995, the toll-free telephone number for ACS was re-activated on May 21, 1996. Log sheets and codes were developed, as was the computerized database for recording information from calls to ACS. Updating of active ingredient, label, and MSDS files was initiated. Antimicrobial Lists A, B, and C were updated and released for distribution. Work on the design and implementation of the ACS World Wide Web site was initiated.

5.2 Ecological Incident Information System (EIIS)

The scope of work for EIIS was developed in cooperation with Candace Brassard (Environmental Fate and Effects Division - Office of Pesticide Programs). EIIS at OSU began operation in June, 1996. The U.S. EPA EIIS database format was reviewed to provide background for the work of EIIS at OSU. EIIS at OSU has as its primary mission the identification of diagnostic laboratories throughout the U.S. that may possess unreported pesticide incident data involving wildlife, and subsequently liaising with those laboratories with the goal of obtaining their pesticide incident data. Diagnostic laboratories were identified and contacted and discussion was held on available incident data and desirable format of the data - subsequently, formal requests were made for data.

