

National Pesticide Telecommunications Network

- 2000 -

Environmental & Molecular Toxicology
Oregon State University

This is the sixth annual report for the National Pesticide Telecommunications Network (NPTN) since it began operation at Oregon State University in April, 1995. NPTN, a service providing a variety of pesticide and pesticide-related information to the general public and professionals across the United States and Puerto Rico and the Virgin Islands, is a cooperative project between Oregon State University and the U.S. Environmental Protection Agency. This report, the 2000 Annual Report, covers the period April 1, 2000 - March 31, 2001, corresponding to NPTN's sixth grant year.

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 a pesticide 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.

Submitted To:

Frank L. Davido
NPTN Project Officer
Pesticide Incident Response Officer
US EPA Office of Pesticide Programs

Written and Submitted By:



Terry L. Miller, Ph.D.
Director

National Pesticide Telecommunications Network (NPTN)
Oregon State University
333 Weniger Hall
Corvallis, OR 97331-6502
800-858-7378
<http://nptn.orst.edu>

NPTN 2000 ANNUAL REPORT TABLE OF CONTENTS

Executive Summary - NPTN 2000 Annual Report	1
NPTN Mission Statement	3
Objectives	3
History	4
Inquiries and Resources	4
Associated Projects	4
Funding	4
NPTN Update	5
Call Update	5
Achievements	5
Personnel Update	9
Facilities	10
Traffic Report	11
Traffic Report Summary	11
Traffic Report Tables and Figures	12
Table 1 - Monthly Telephone Calls	13
Table 2 - Types of Calls	14
Table 3 - Origin of Calls	15
Table 4 - Web Site Hits	16
Table 5 - Type of Caller	17
Table 6 - Type of Question	18
Table 7 - Reason for Inquiry	19
Table 8 - Action Taken	20
Table 9 - Inquiries by State	21
Table 10 - Top 25 Active Ingredients for All Calls	22
Table 11 - Top 25 Active Ingredients for Incident Calls	23
Table 12 - Location of Incidents	24
Table 13 - Environmental Impact	25
Table 14 - Incident Calls - Certainty Index	26
Table 15 - Description of Entities	27
Table 16 - Symptoms of Entities	28
Table 17 - Additional Outcomes for Entities	29
Table 18 - Ages of Human Entities	30
Report on Subcontracts	
Oregon Poison Center	31
National Animal Poison Control Center	31
Sub-Projects	31
National Antimicrobial Information Network (NAIN)	31



Consumer Labeling Initiative
Read the Label *First!*

 The logo is circular with a yellow background. It depicts a stylized figure in orange and blue reading a document. Below the figure, the words "READ THE LABEL FIRST" are written in bold, black, uppercase letters.

“Pesticide Information How May I Help You?”

The screenshot shows a Netscape browser window displaying the website for the National Pesticide Telecommunications Network. The browser's address bar shows the URL <http://nptn.orst.edu/tech.htm>. The page title is "National Pesticide Telecommunications Network - Technical Pesticide Information - Netscape". The main content area features a navigation menu on the left with links such as "About NPTN", "Site Map", "Home", "General Info", "Technical Info", "Antimicrobial Info", "Regulatory", "Manufacturers", "Pest Control", "Emergency", and "Related Links". Below the menu is a search box and a link to "Advanced Search". The main heading is "Technical Pesticide Information -". Below this heading is a list of links: "Toxicology & Active Ingredient Factsheets", "Health Information Databases", "Environmental & Chemical Properties Databases", "Product, Label, & MSDS Databases", "Statistics", and "More Technical Info". To the right of the links is a graph titled "The Dose Makes the Poison" - Paracelsus. The graph plots "Toxicity (percent)" on the y-axis (0 to 100) against "Dose (mg)" on the x-axis (0 to 35). A blue curve shows toxicity increasing with dose, with a vertical dashed line at 10 mg labeled "Threshold". A portrait of Paracelsus is shown in the background of the graph. Below the graph is a link to "Download adobe acrobat reader to view pdf files." The browser's status bar at the bottom shows "Document: Done".



Executive Summary - NPTN 2000 Annual Report

Note: The complete record of the accomplishments of NPTN for the current operational year includes the 12 monthly reports and 4 quarterly reports (submitted earlier), in addition to this "2000 Annual Report." This report covers the NPTN grant year: April 1, 2000 through March 31, 2001.

Operations

- The NPTN World Wide Web site continues to be a popular way of obtaining information from NPTN - during this operational year the site received 299,678 hits (a 35% increase). NPTN received 544 inquiries via email (Table 4).
- NPTN took 865 calls for information about pesticides and the outbreak of New York St. Louis Encephalitis/West Nile virus; 34 of these were incident calls.
- Because of the interest in pesticides and West Nile virus, NPTN created a West Nile Virus Resource Guide on its web site.
- In anticipation of an even greater interest in West Nile virus issues in 2001, NPTN has initiated an effort to greatly expand the West Nile Virus Resource Guide.
- NPTN answered 23,047 inquiries during its sixth operational year. Eighty percent of the inquiries were received between March and October, coinciding with that part of the year when most pest pressures are the highest (Table 1, Figure 1).
- The majority of calls (89.9%) were for information only (i.e., not related to an incident); 6.9% related to exposure concerns, and 3.2% concerned other non-health-related pesticide incidents (Table 7, Figures 8 and 9).
- The greatest number of calls (39.6%) were health-related, whereas 29.0% were for information about pesticide usage, and 8.5% were of a regulatory nature (Table 6, Figure 7).
- Examples of "health-related" calls include:
 - Caller is a veterinarian who is looking for information on symptoms related to disulfoton exposure. Dog's owners applied pellets to lawn and is concerned dog may have eaten some. Dog is lethargic and had vomited yesterday.
 - Caller is pregnant and is due to give birth in a few weeks. She has her home treated monthly for general pests. She is concerned about potential effects to her unborn or newborn child.
 - Caller indicates pesticide applications for mosquito control will take place shortly. She wonders whether the pesticide in the swimming pool will harm her daughter.
 - Caller indicates the condo landscape has been treated with unknown pesticides twice this summer and the odor is really strong this time. Will it harm the children to play on the grass?
- Of the 23,047 calls, 9.5% (2,193) involved pesticide incidents, while 43.1% (9,941 calls) were for information about specific pesticide active ingredients or products, and 43.8% (10,093 calls) were for general information about pesticides and pesticide-related issues (Table 2, Figures 2 and 3). Examples of pesticide incident calls include:
 - Caller is 6 months pregnant and set off three foggers in her home. She forgot to open up cabinets so she ran back inside to open them and tried to cover her nose and mouth. When she got back outside she was gagging and vomited and had to blow her nose a lot and her throat was scratchy. She immediately changed clothes and washed up.
 - Caller was distraught and recounted how yesterday she applied a pesticide to her two year old, eight pound cat. Caller immediately realized she made a mistake when she read on the label "Not for use on cats." Caller then gave the cat a bath and brought the cat to her vet. The cat went into convulsions and is in a coma.
 - Caller from hospital stated that a female in her twenties consumed some zinc phosphide. Person consumed product 2 hours before call came to NPTN and had vomited 1.5 hours before. Caller wanted to know what else was in product.
 - Caller states that a maintenance man sprayed the baseboards of the office the caller and her sister work in while they were present. There was no ventilation of the area - the office lacks windows. Both she and her sister experienced shortness of breath, a flushed feeling, tightness in the chest, and cough.
- Of the 2,193 incident calls, 6.4% were assigned a certainty index of 1 or 2, thus judged to have been either definitely or probably caused by the pesticide in question (Table 12).
- The active ingredient chlorpyrifos generated more inquiries (1,569) (corresponding to 6.8% of all calls, and 12.9% of pesticide-specific calls) than any other single active ingredient. Of these, 18.1% (285) were incident calls and 81.9% were inquiries for general information. Of the 285 chlorpyrifos incident calls, 4.9% were assigned a certainty index of 1 (definite) or 2 (probable) (Table 10, Figure 14).

- For the remaining active ingredients (in the top 25) involved in incidents, there were a total of 1,052 incidents, with 6.5% 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 (61.6%); 18.8% involved animals (Table 11, Figure 15).
- There were 2,358 entities involved in the incidents reported to NPTN - 56.6% were human, 24.9% animal, and 18.5% other (e.g., building, environment). Of the human entities, 33.4% were male, 55.6% female, 10.3% groups, and 0.6% where gender was not stated (Tables 14 and 15, Figures 16 and 17).
- Of the 1,334 humans involved in incident calls, information about symptoms was given for 1,190. Of these, 63.1% were symptomatic (symptoms matched those for pesticide in question), 21.4% were asymptomatic, and 15.5% reported atypical symptoms (Table 16, Figures 18 and 19).
- Amongst the 1,334 human entities, 1 death was reported - this incident was judged to not have a certainty index of 1 or 2, making it unlikely that the death(s) was a result of pesticide exposure. Of the 562 animal entities, there were 49 deaths, with 14 of the incidents assigned a certainty index of 1 or 2, indicating likely pesticide involvement (Table 17, Figure 20).
- Ages were available for 736 of the 1,334 human entities. A portion (10.6%) of the entities were less than 5 years old, 5.7% were between the ages of 5 - 14, 6.4% were between 15 - 24, 65.9% were between the ages of 25 - 64, and 13.5% over age 64 (Table 18, Figure 21).
- Of the known locations (1,977) where incidents occurred, 86.2% were the home or yard, while 6.2% were agriculturally related and 3.3% involved an office building or

school (Table 12).

- Most of the calls (87.7%; 20,209) to NPTN came from the general public, while 4.1% calls came from federal/state/local agencies, 2.4% from medical personnel, 1.9% from information providers, and 2.6% from consumer users (Table 5, Figures 5 and 6).
- Most of the calls to NPTN (83.6%; 19,277) were handled by providing verbal information to the caller. Other actions taken by Pesticide Specialists were to refer callers to EPA and SLA (3.1%), County Extension Service (2.2%), Oregon Poison Center (0.2%), National Animal Poison Control Center (0.5%), National Antimicrobial Information Network (0.9%), and other organizations (6.4%). Some callers (3.2%) received information via mail or FAX (Table 8, Figures 10 and 11).
- NPTN received 22,453 inquires via telephone (Table 3).
- The largest number of calls originated from California, Texas, and New York - states ranked 1, 3, 2 respectively, in terms of population (Table 9, Figure 12).
- By EPA region, 12.7% of the calls came from Region 9, 12.2% from Region 2, 12.0% from Region 4, 11.7% from Region 6, and 11.3% from Region 3 (Figure 13).

Organization

- During the grant year, Dr. Sheldon Wagner retired from Oregon State University (although he continues on a part-time basis). Dr. Dan Sudakin, MD, MPH, who began employment during November, 2000, is assuming the role previously carried out by Dr. Wagner to participate in, and support the efforts of, NPTN.

Six Specialists resigned; one Specialist reduced her hours to attend graduate school full-time. NPTN hired seven full-time Pesticide Specialists and a Project Coordinator during the 2000 grant year. NPTN continued recruitment

for two full-time Specialists. NPTN employs 15 full-time Specialists, including the Project Coordinator.

Part-time staff resigned, or were promoted, and successful recruitment occurred for two additional undergraduates and one graduate student.

- New fact sheets posted on the NPTN web site are: *Pesticides in Drinking Water; Inert or "Other" Ingredients; Acephate-General; Acephate-Technical; Bacillus thuringiensis-General; Bacillus thuringiensis-Technical; Chlordane-General; Chlordane-Technical; Glyphosate-General; Glyphosate-Technical; Hexaflumuron-Technical; Hexaflumuron-General; lambda-Cyhalothrin-General; lambda-Cyhalothrin-Technical; Methyl Bromide-General; Methyl Bromide-Technical; Piperonyl Butoxide-General and Piperonyl Butoxide-Technical.*

Fact sheet development occurred on the following topic and active ingredient (general and technical) fact sheets: *Accidental Applications in the Garden; The Endocrine System; Endocrine Disruptors; Indoor Air; IPM; Pesticide Facts; Pesticide Labels; Pesticide Regulation; Children and Pesticides; Anticoagulant Rodenticides; Boric Acid; DEET; Dicamba; Esfenvalerate; Hydroprene; Malathion; Methoprene; d-Phenothrin; Resmethrin; Potassium Salts of Fatty Acids; and Triclopyr.*

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.

NPTN Pesticide Specialists deliver information in a user-friendly manner and are adept at communicating scientific information to the lay public...

In addition, NPTN provides referrals for:

- laboratory analyses, investigation of pesticide incidents, and emergency treatment
- safety practices
- health and environmental effects
- clean-up and disposal.

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

Service provided by NPTN is available from 6:30 am - 4:30 pm Pacific Time, 7 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 services provided by NPTN and its associated projects are strictly informational and have no regulatory or enforcement capabilities.

NPTN maintains a TDD to facilitate access to pesticide information by the hearing-impaired.

Objectives

The 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 retrieval.

NPTN provides objective, science-based, accurate information about pesticides and pesticide-related topics to empower callers to make informed decisions about pesticide use...

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.

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; and current pesticide-related issues in the news. NPTN maintains an extensive

NPTN is a cooperative effort of Oregon State University and the U.S. Environmental Protection Agency...

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 about 700 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 EXTOWNET (EXTension TOXicology NETWORK), CHEMBANK (HSDB, RTECS, IRIS), and PESTBANK; and on-line literature searching capabilities (e.g., Medline, Toxline).

Associated Projects

In addition to its basic service described above, NPTN administers a related sub-project - NAIN (National Antimicrobial Information Network). NAIN, previously known as ACS (Antimicrobial Complaint Service), provides information (via its own toll-free telephone line and a World Wide Web site) to medical professionals and the public on disinfectants, sanitizers, and sterilants, each classified as pesticides by the U.S. EPA.

Funding

Funding for NPTN and NAIN 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.



OREGON STATE
UNIVERSITY

Open minds. Open doors.™

NPTN Update

Call Update

NPTN responded to 23,047 inquiries, 2,193 of which were classified as pesticide incidents. 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.

Incident calls are reviewed by Dr. Sheldon Wagner and/or a senior Pesticide Specialist.

On the basis of information provided by the caller, and with reference to established criteria, all incident calls are assigned a certainty index (CI) - this is NPTN's assessment as to whether the effects were definitely (CI = 1), probably (2), possibly (3), or unlikely (4) to have been caused by exposure to a pesticide, or whether the effects were unrelated (5) to pesticide exposure.

For incidents in which the caller reported an exposure, accident, or odor, but no health effects, a certainty index of zero (0) is assigned.

Achievements

Resources

NPTN acquired many books, reports, and other documents to supplement the NPTN library that serves as a resource for Specialists who respond to pesticide inquiries.

Books acquired or purchased during the 2000 grant year include: *FIFRA (10)*, *21 CFR Parts 170 -*

199; 40 CFR Parts 150 -189 ; NIOSH Case Studies in Bioaerosols; NIOSH Case Studies in Indoor Air Quality; NTP 9th Edition of the Report on Carcinogens; NTP Division of Toxicology Research and Testing Management Status Report; NTP & NICEATM Up-and-Down Procedure: Background Review; Radio Pesticida, AFOP; The Dispossessed: Living with

(2000 Ed.); Technically Speaking: A Guide for Communicating Complex Information; The Future Role of Pesticides in US Agriculture; Genetically Modified Pest-Protected Plants: Science and Regulation; Lewis' Dictionary of Toxicology; Epidemiology Kept Simple: An Introduction to Classic and Modern Epidemiology, (1998); The Pesticide Manual (12th Ed.); Fumigation Update, Vol 3, Dow Agrosciences.



Multiple Chemical Sensitivities; Handbook of Poisoning in Dogs and Cats; Food Irradiation: A Safety Measure Pamphlet; Harvard Center for Risk Analysis Risk/Risk Tradeoffs in Pesticide Regulation: Evaluation the Public Health Effects of a Ban on Organophosphate and Carbamate Pesticides; Ecotoxicology for the Citizen; Toxicology for the Citizen; Handbook of Pest Control, Eighth Edition; The Pesticide Book, (5th Ed); Complete Guide to PEST CONTROL With and Without Chemicals, (3rd Ed.); Agricultural Chemicals, Book III; Miscellaneous Chemicals(1999-2000 Revision); Agricultural Chemicals, Book IV, Fungicides

NPTN obtained the following EPA publications: *An Assessment of Worker Training Under the Worker Protection Standard; Final Report, Pesticides and National Strategies for Health Care Providers: Draft Implementation Plan; Status of Chemicals in Special Review; 25 Years of the SDWA: History and Trends); Strategy for Research on Environmental Risks to Children; OCHP America's Children and the Environment: A First View of Available Measures; Mills, Converters and Distributors of Printing and Writing Paper containing Postconsumer Recovered Fiber; OP Revised Risk Assessments: Azinphos-methyl; Bensulide; Chlorpyrifos; Chlorpyrifos-methyl; Coumaphos; Dicrotophos; Trichlorfon.*

The following EPA/OPP Reregistration Eligibility Decision documents were obtained: *(Z)-9-Tricosene; 1,3-Dichloropropene; Amitrole; Ancymidol; Bensulide (IREC); Bentazon; Butylate; Cadusafos (TREC); Cedarwood Oil; Chlorpropham; Coumaphos; Diclofop-Methyl; Ethalfluralin;*

Etridiazole; Fenthion (IREG); Linuron; Metalaxyl; Metolachlor; Metribuzin; Minearl Acides; Mitin; Norflurazon; Nuranone; Oryzalin; Oxamyl (IREG); Oxymyl (IREG); Paraquat Dichloride; Pendimethalin; Phosteburpirim (TRED)Profenofos (IREG); Profenofos (IREG); Prometryn; Propetamphos (IREG); Propoxur; S-Kinoprene; Tribufos (IREG); Trichlorfon; Triclopyr; Tris(hydroxymethyl)nitromethane; Vinclozolin; Reports on FQPA Tolerance Reassessment Progress and Interim Risk Management Decisions for Fenitrothion, Mevinphos, Phosalone, Phostebupirim; Reregistration Eligibility Decision Addendum and FQPA Tolerance Reassessment Progress Report Coumaphos.

The following publications were received from FDA/USDA during the year: *USDA Pesticide Data Program Annual Summary Calendar Year 1998; USDA Pesticide Data Program: Annual Summary Calendar Year 1999; FDA Pesticide Program Residue Monitoring 1999.*

World Health Organization publications received by NPTN include: *IPCS Environmental Health Criteria 214, Human Exposure Assessment; IPCS Environmental Health Criteria 219, Fumonisin B₁; IPCS Hazardous Chemical In Human Environmental Health, a resource book for school, college and university students; IPCS Pesticide Residues in Food - 1999; Evaluations 1999 Part II - Toxicology.*

NPTN purchased the software, EndNotes, to aid in preparation of the bibliographies for NPTN pesticide fact sheets.

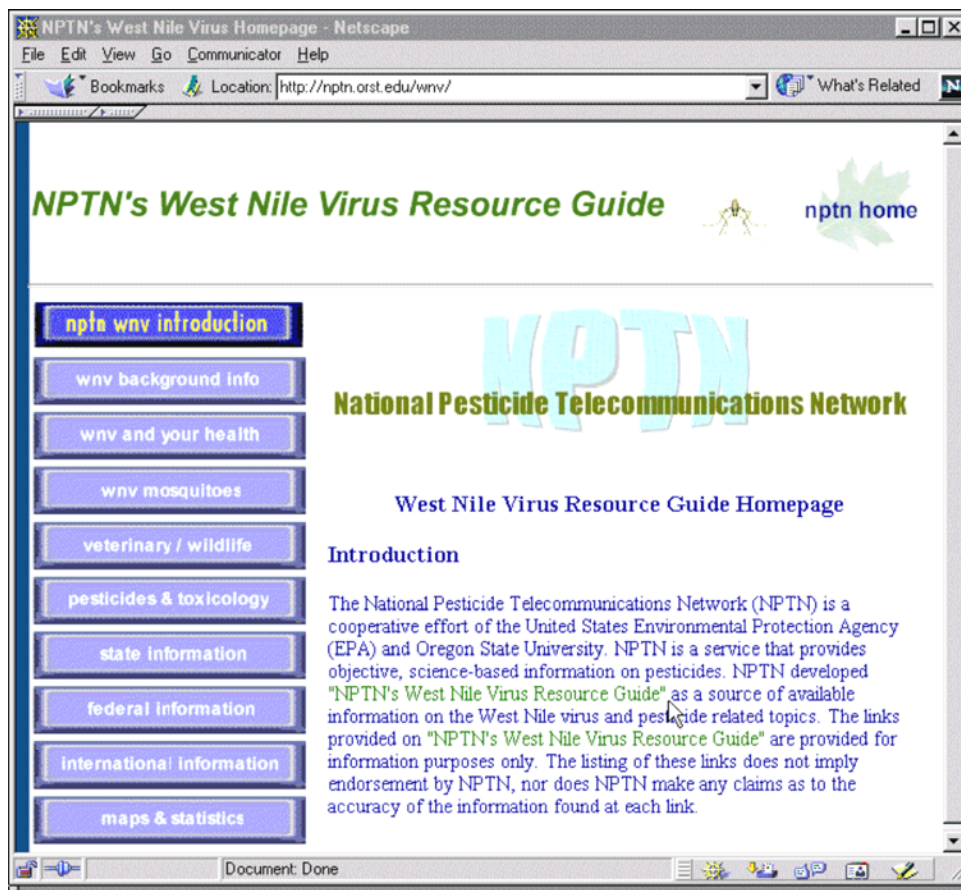
Project and Information Review

Fact Sheets - The following pesticide topic and active ingredient fact sheets were posted on the NPTN web site: *Pesticides in Drinking Water; Inert or "Other" Ingredients; Acephate-General; Acephate-Technical; Bacillus thuringiensis-General; Bacillus thuringiensis-Technical, Chlordane-General; Chlordane-Technical; Glyphosate -General; Glyphosate-Technical; Hexaflumuron-Technical; Hexaflumuron-General; lambda-Cyhalothrin-General; lambda-Cyhalothrin-Technical; Methyl Bromide-General; Methyl Bromide-Technical; Piperonyl Butoxide-General and Piperonyl Butoxide-Technical.*

Fact sheet development occurred on the following topic and active ingredient (general and technical) fact sheets: *Accidental*

Applications in the Garden; The Endocrine System; Endocrine Disruptors; Indoor Air; IPM; Pesticide Facts; Pesticide Labels; Pesticide Regulation; Children and Pesticides; Anticoagulant Rodenticides; Boric Acid; DEET; Dicamba; Esfenvalerate; Hydroprene; Malathion; Methoprene; d-Phenothrin; Resmethrin; Potassium Salts of Fatty Acids; and Triclopyr. The fact sheet priority list was updated to include additional active ingredients and general topics.

NPTN Web Site -NPTN released a new version of the 2000 West Nile Virus Resource Guide web page to cover more statewide efforts in control of mosquitoes. In addition, NPTN began development of an expanded West Nile Virus Resource Guide web page to cover federal, state, and international resources for the 2001 mosquito season. Enhancements also occurred to the manufacturer resource web page to



include additional contact information for manufacturers, formulators and registrants.

Active Ingredient Files - Efforts continue to expand, update and maintain hard copy active ingredient (AI) files. NPTN maintains approximately 683 active ingredient files. Of those, 324 have been reviewed for standardized content and reorganized; 70 are new active ingredients added to NPTN resource files. NPTN continued its efforts related to the AI File management project. In addition, the Instant Info template draft was updated to reflect current FQPA standards and endpoints.

"Other" Ingredient Files - NPTN continues to compile federal register notices, National Toxicology Program, Agency for Toxic Substances and Disease Registry, World Health Organization and other scientific documents related to inert or "other" ingredients.

Training and Continuing Education

Weekly NPTN group meetings, a principal training and QA/QC activity for Pesticide Specialists, continued throughout the year. Internal training seminars were scheduled during many of these weekly sessions.

The training program updated the Training Manual to accommodate a new chapter, *Hot Topics*, discussing issues related to bio-pesticides and genetically modified organisms, Starlink corn, West Nile virus, and Allercare issues. Additional enhancements were made to the *Toxicology* section for the human exposure risk assessment based on the most recent policies at EPA.

Six Specialists completed the training program and one individual was moving toward completion during this reporting period. Seven Specialists attended university lectures to complete a 3-term series of a graduate-level toxicology course, including: Fundamentals of Toxicology, Target Organ Toxicology, and Environmental Toxicology and Risk Assessment. Three of those Specialists will complete the 9-credit series in June 2001.



Read the Label!

NPTN and OSU provide additional opportunities for continued learning including seminars, lectures and conferences. NPTN staff benefitted from presentation by Dr. Thomas Cook of OSU who discussed *Lawn Care Pesticides*. Rose Kachadoorian, Oregon Department of Agriculture, presented a seminar on *State Pesticide Enforcement Activities and Regulation*. NPTN also invited Jeanne Davidson, Physical Sciences Librarian at The Valley Library, to provide an *Overview of Toxicology Research Resources* at the OSU library. Dr. Terri

Lomax, Director, Program for the Analysis of Biotechnology Issues, provided an overview of *Biotechnology* issues.

Dr. Sheldon Wagner conducted an internal seminar related to *Multiple Chemical Sensitivity*. Specialist Terry Brock presented *NPTN Customized Endnotes Tutorial* as well as *Chlorpyrifos - Revised Risk Assessment Overview - What the Specialist Needs to Know*. Specialist Crista Chadwick presented the topic *Minimum Risk Pesticides - What You Need to Know* to the staff, and Specialist Kate Brown, presented an overview of the pesticide *Resmethrin*. Project Coordinator Lorena Barck presented on *Laws and Regulations*. The staff also reviewed the Video Series: *Outbreak in New York City, NY Times - Science Times Broadcast* on the Learning Channel.

Conferences attended by NPTN personnel this year include: Lorena Barck, Linda Burdwell, Sarah Peskin, David Spink, Terry Miller, and Sandra Uesugi attended the Oregon State University Extension Service *2001 Chemical Applicators Short Course* in Portland, Oregon. Crista Chadwick attended the *35th NW Mosquito and Vector Control Association Annual Conference* in Newport, Oregon. Tracie Caslin and Dixie Slatter attended seminars offered at the *Western Regional Master Gardeners Conference* in Phoenix, Arizona. Crista Chadwick participated in the *5th Pacific NW Pesticide Issues Conference: Home & Garden Pesticide Use and Users: Issues and Education* in Tacoma, Washington. Crista Chadwick and Terry Miller attended the *EPA Region 2 Invitational West Nile Virus Conference* in New Brunswick, NJ, February 28 to March 1, 2001. Terry Miller, Jeff Jenkins, Sarah Peskin, Amy Smoker and David Spink attended the *American Association of Pesticide*

Control Officials annual meeting in Arlington, VA, March 12-14, 2001.

Publicity

Efforts on behalf of NPTN by the EPA's Office of Communications (Office of Communications, Education and Media Relations) and Communications Services Branch within the Office of Pesticide Programs included Radio Public Service Announcements and the use of truck-side advertising campaigns throughout the nation.

Poison Control Centers, and Veterinary Medical Associations. NPTN also developed new display materials in preparation for future exhibitions and conferences.

NPTN staff also participated in outreach efforts off-site as follows: Tracie Caslin and Dixie Slatter staffed an NPTN exhibit at the *Western Regional Master Gardeners Conference*, Phoenix, Arizona; Crista Chadwick spoke at the *35th NW Mosquito and Vector Control Association Annual Conference*, Newport,

Resources, Pesticide Analytical Response Center (PARC), Oregon Department of Health Services, Health Division. In addition, 1000 NPTN brochures were provided to Joe Rajotte at Pennsylvania State University (Bug Mobile), and EPA Region 3 received over 1500 for display and for specific distribution at the 2001 Philadelphia Flower Show.

Other

Visit to OPP Headquarters - Sarah Peskin, Amy Smoker, David



The Consumer Labeling Initiative, *Read the Label First* campaign, resulted in 379 contacts with NPTN.

Internal outreach efforts included updates to seven outreach contact databases. NPTN information packets were mailed to the following organizations during this reporting period: California County Agricultural Commissioners, State Departments of Agriculture, Master Gardener Coordinators, New York Departments of Environmental Conservation, State Pesticide Applicator Training Coordinators,

Oregon and was a guest speaker at the 5th Pacific NW Pesticide Issues Conference: *Home & Garden Pesticide Use and Users: Issues and Education* in Tacoma, Washington; Terry Miller and Crista Chadwick presented at the *EPA Region 2 Invitational West Nile virus Conference* in New Brunswick, New Jersey.

NPTN brochures were provided to a variety of organizations including Washington State University Extension, Utah Department of Agriculture, New York Department of Health Services, Bureau of Groundwater

Spink, Jeff Jenkins, and Terry Miller attended the *American Association of Pesticide Control Officials* annual meeting in Arlington, Virginia in March, 2001. They, along with Lorena Barck and Dan Sudakin, also met during the same week with EPA/OPP personnel at OPP headquarters in Arlington. Meetings during this visit were held with: the NPTN Project Officer, Frank Davido; the NPTN Oversight and Monitoring Committee; and representatives of other EPA/OPP divisions, including: Information Resources and Services, Field and External Affairs, and Health Effects

Divisions. The NPTN delegation also met at this time with OPP Acting Deputy Office Director Anne Lindsay and other OPP personnel.

Site Visit - Frank Davido and Sherri Street, from the EPA Office of Pesticide Programs/Information Resources and Services Division, conducted their annual site visit to NPTN.

Issues - NPTN addressed various pesticide related issues with the public during the reporting period, namely: Allercare recall, West Nile virus, Organophosphate Revised Risk Assessment releases (Chlorpyrifos and Diazinon), genetically modified organisms and Starlink® corn.

The *West Nile virus* impacted NPTN throughout the reporting period, with a total of 865 contacts by the public. The highest number of calls came from the following states: New York (417); Maryland (181); Connecticut (60); New Jersey (57); and Massachusetts (37). The most frequent topics discussed were: health effects (482); product and/or chemical information (135); inquiring about spray schedule (99); and concerns about encephalitis (56).

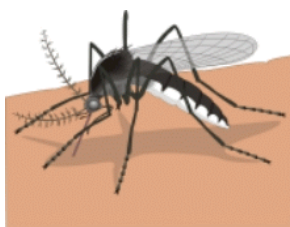
NPTN web page enhancements were made to the NPTN West Nile Virus Resource Guide to include links representing statewide participation in mosquito control and surveillance of the West Nile virus. In addition, Terry Miller and Crista Chadwick participated in the

EPA Region 2 Invitational West Nile Virus Conference in New Brunswick, New Jersey.

Organophosphate Revised Risk Assessments for Chlorpyrifos and Diazinon generated 390 and 7 calls, respectively. Common questions focused on the regulatory status, health effects, precautions for use, and alternatives to the active ingredient.

The *Allercare* issue and recall generated 196 calls with questions related to health effects, clean-up and complaints.

A topic receiving extensive media



coverage included *Genetically Modified Organisms* and *Starlink® corn*, however, NPTN experienced very little impact to the call load. Nine calls were received specific to Starlink. Also of media interest was science published related to Parkinson's disease and rotenone; OPB special on confidential business information (trade secrets); and an ABC 60 Minutes II broadcast on

biotechnology and related regulations.

Personnel Update

During the grant year, Dr. Sheldon Wagner retired from Oregon State University (although he continues on a part-time basis). The Department of Environmental and Molecular Toxicology recently hired a "replacement" for Dr. Wagner. Dr. Dan Sudakin, MD, MPH, began employment during November, 2000. Among his other responsibilities to OSU, Dr. Sudakin is assuming the role previously carried out by Dr. Wagner of participating in, and supporting the efforts of, NPTN.

NPTN hired seven full-time

Pesticide Specialists and a Project Coordinator (1 FTE) during the 2000 grant year. Six Specialists resigned; one Specialist reduced her hours to attend graduate school full-time. NPTN continued recruitment for two full-time Specialists.

Part-time staff resigned, or were promoted, and successful recruitment occurred for two additional undergraduates and one graduate student.

NPTN currently employs 15 full-time Specialists, including the Project Coordinator. All Specialists have at least a bachelors degree in a scientific field; many have advanced degrees. Specialists come from the

fields of toxicology, plant pathology, environmental science, biotechnology, horticulture, ecology, soil science, among others.

Facilities

Remodeling was completed on new office space for NPTN (an additional 1300 square feet). NPTN occupied the new space during the 4th quarter of the grant year. The new space has new carpeting, paint, lighting, and air conditioning (HVAC). Telecommunication lines were upgraded to Category 5 wiring in all NPTN space, and new communications lines were added to the new space. Additional purchases during the grant year included: Xerox Document Centre 265ST, UPS power surge protectors, one AT&T telephone, file cabinets, chair mats, and refrigerator. Two additional telecommunications stations were created. NPTN also acquired a small room (~160 square feet) for storage and archives.

NPTN has taken efforts to increase the security of its UNIX system by rewiring all of the data lines to terminate in one room under NPTN's control. This will make it possible to implement a "firewall" to further increase security.



Traffic Report

Traffic Report Summary

NPTN answered 23,047 inquiries during its sixth year of operation (April 2000 - March 2001) at Oregon State University. Most of the calls received by NPTN are quite sophisticated, requiring extensive expertise on the part of the Pesticide Specialists to be able to provide answers which are objective, science-based, and accurate, and, at the same time, are presented in an understandable way to the caller.

A summary of the number of calls received per month is provided in Table 1 and Figure 1. Also included in Table 1 is a listing of the total number of calls by calendar year. Most calls come to NPTN during the period March to October.

The types of calls received by NPTN are shown in Table 2 and Figures 2 and 3. Calls range from inquiries regarding general or specific information about pesticides to reporting of incidents.

The means by which people contact NPTN is shown in Table 3. The telephone is by far the most important verbal contact route. However, many people access

NPTN through its World Wide Web site - during this year, the web site received 299,678 hits. (Table 4 and Figure 4 and 4a). In addition, there were 544 direct inquiries to NPTN via email.

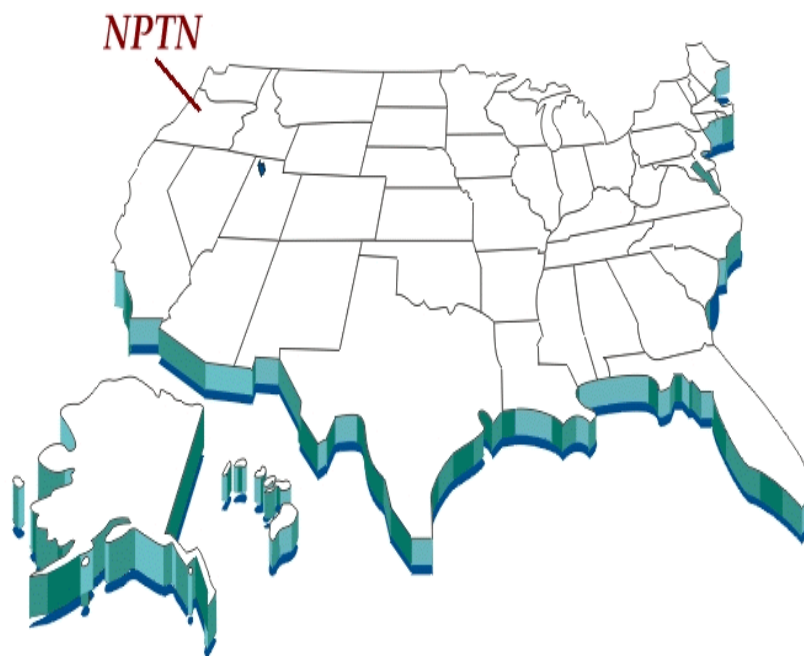
The variety of callers to NPTN is shown in Table 5 and Figure 5. The predominant number of calls received by NPTN are from the general public.

The types of questions posed to the NPTN Pesticide Specialists are presented in Table 6 and Figure 7. Most of the callers requested information about health-related issues.

Most of these information calls, and others listed in Table 6, were prompted by concern/knowledge of the caller (Table 7 and Figures

to either EPA, National Pesticide Medical Monitoring Program (NPMMP, a cooperative project between Oregon State University and the U.S. EPA to provide medical consultation and follow-up to potential pesticide exposures), 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 9 shows 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 Figures 12. Residents from California, Texas, and New York initiated the greatest number of calls. Also shown in Table 9 and presented in Figure 13 are the number of calls from each of the EPA regions.



8 and 9). Only about 9.5% of the calls are to report a pesticide incident.

Most callers received information verbally from a Pesticide Specialist (Table 8 and Figures 10 and 11). Some callers also request and receive written information. In addition, many calls are referred

The total number of calls, as well as the number of information and incident calls, for the 25 most asked about pesticide active ingredients are presented in Table 10. 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 are presented in Figure 14. The 25 active ingredients

most frequently mentioned in incident calls are listed in Table 11. Incident calls are further classified by entity type. The 10 active ingredients most often mentioned in incident calls are presented in Figure 15.

The locations where pesticide exposures were purported to have

taken place are shown in Table 12. Of those calls where the location was reported, most incidents occurred in or around the home.

The environmental impact of the pesticides involved in incidents is shown in Table 13.

The incident calls are further categorized by whether the incident involved a human, animal, or building/other (Table 14 and Figure 16). The incident calls for each entity type are qualified 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 entities presented in Table 14, the certainty index is further categorized by gender and group.



Traffic Report Tables and Figures

Pesticide Specialists record pertinent information for every call received at NPTN. This information is entered into the NPTN Pesticide Incident Database (PID), an electronic database used to record information for all inquiries to NPTN. Broadly speaking, there are two types of calls received by NPTN - those for general or specific information about pesticides and pesticide-

information calls includes: origin of inquiry (e.g., telephone or e-mail), state from which the inquiry originated, type of person (e.g., general public, government agency, or medical personnel), type of inquiry (e.g., request for pesticide information or report of pesticide incident), reason for inquiry (e.g., concern/knowledge in the case of information calls), and action required (e.g., verbal information, referral, or mailed information). If a specific pesticide product or active ingredient is discussed, the product and/or active ingredient is entered into the database.

When incidents are reported, more detailed and specific information is recorded, including: type of incident (e.g., exposure, spill, drift), location of the incident and information about the entity, including age, gender, nature of the exposure, and reported symptoms. For incidents involving reported human or animal health effects, and for environmental incidents, a certainty index is assigned.

Table 15 and Figure 17 list the descriptions for the entities involved in incidents, as female, male, groups, animals, and other.

Reported symptoms are shown in Table 16 and Figures 18 and 19. Symptoms provided by callers ranged from symptomatic, to asymptomatic, to atypical.

The number of deaths, life threatening, or interesting/strange cases, due to a potential pesticide exposure, is shown in Table 17 and Figure 20.

Ages were available for some of the entities and are presented in Table 18 and Figure 21.

related issues and calls about pesticide incidents. For example, a caller might ask a question about 'pesticides in foods' (a general information call) or about the toxicity of a particular pesticide (a pesticide-specific information call). A call to report an exposure to a pesticide is an example of an incident call. The type and amount of information entered into the PID depends on whether the call was for general information or to report a pesticide incident.

Information collected and entered into the PID for general

The certainty index is an estimate by NPTN (based on information provided by the caller) as to the likelihood that the reported effects were caused by exposure to a pesticide. Additionally, if an incident involves an environmental impact, the nature of the impact is recorded in the database (e.g., impact to air, water, or soil).

Following is a summary of selected data from the NPTN Pesticide Incident Database for the 2000 NPTN operational year.

Monthly Calls

NPTN received 23,047 inquiries during the 2000 grant year. Figure 1 shows the number of calls received for each month. Eighty percent of the inquiries were received between March and October, coinciding with that part of the year when most pest pressures are highest. Total calls received during previous grant and calendar years is provided for comparison in Table 1.



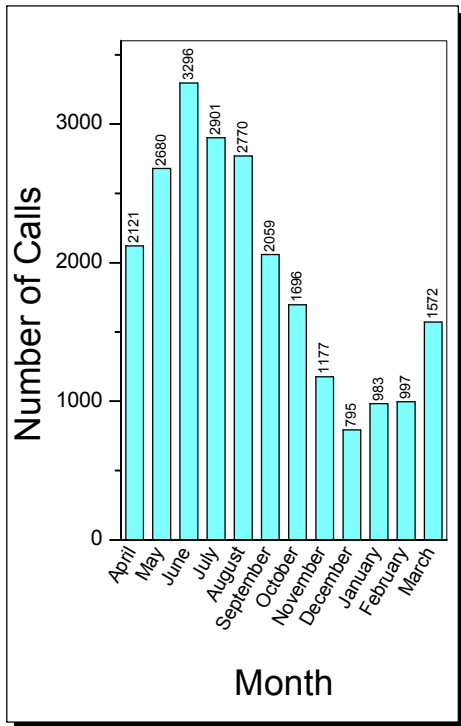
**Table 1 -
NPTN Monthly Telephone Calls**

Month	Number of Calls				
	1996	1997	1998	1999	2000
April	2015	2129	2181	2266	2121
May	2215	2199	2486	2520	2680
June	2111	2441	2891	2693	3296
July	2114	2536	2608	2629	2901
August	1950	2282	2188	2342	2770
September	1638	1904	1790	2141	2059
October	1642	1712	1544	1671	1696
November	1094	1131	1132	1232	1177
December	858	1060	938	817	795
January	1114	1153	1047	1137	983
February	1263	1353	1214	1393	997
March	1557	1937	1698	1880	1572
Calendar ¹⁾ Year	19463	21328	22206	22275	23911
Grant ²⁾ Year	19571	21837	21717	22721	23047

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

²⁾ April 1 through March 31.

**Figure 1 -
NPTN Monthly Calls**



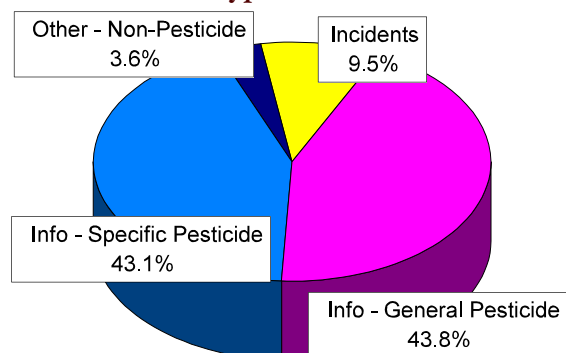
“I’ve been told that my home needs to be treated with pesticides to kill termites. I am pregnant, and I am wondering if the chemicals will hurt my unborn baby? What about my other children?”

Types of Calls

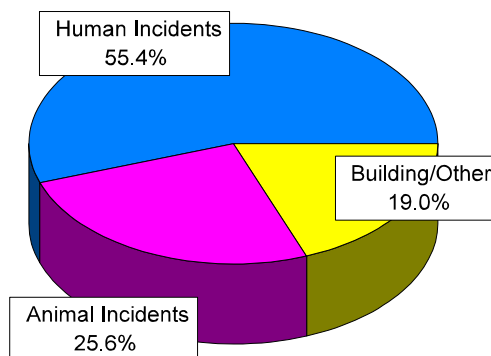
NPTN classifies calls as information calls, incident calls, or other (non-pesticide) calls. These types of calls are summarized in Figures 2 and 3 and Table 2. The majority of calls (20,034 or 86.9%) to NPTN were information calls in which the caller is requesting information about pesticides or pesticide-related matters (Figure 2). Information calls may involve a discussion of a specific pesticide, or of pesticides in general. NPTN responded to 9,941 (43.1%) information calls about specific pesticides, for example: *Caller had questions on the safety of using Frontline Top Spot for dogs (fipronil) and Caller wanted to know if Bonide Home Pest Insect Killer (chlorpyrifos) would be safe to use around baby with an outside application.* NPTN responded to 10,093 (43.8%) calls relating to pesticides in general, for example: *Caller is looking to purchase a house near an orchard and is worried about exposure to the pesticides they use and Caller has some rose insecticide and is worried about exposure to her family.*

NPTN responded to 2,193 (9.5%) calls about pesticide incidents. A pesticide incident is a spill, a misapplication, a contamination of a non-target entity, or any purported exposure to a pesticide, regardless of injury. The majority of incident calls involved human and animal entities (Figure 3). Of the 2,193 incident calls, 1,215 (54.5%) involved a human entity, 561 (25.6%) involved an animal entity, and 416 (19.0%) involved damage to a building such as a home or office. NPTN also took 820 (3.6%) calls that were not related to pesticides, for example: *Caller wanted to know what to feed a mole and Caller inquiring if canine ingestion of juniper berries causes hallucinations.*

**Figure 2 -
Types of Calls**



**Figure 3 -
Incidents**



**Table 2 -
Types of Calls Received by NPTN**

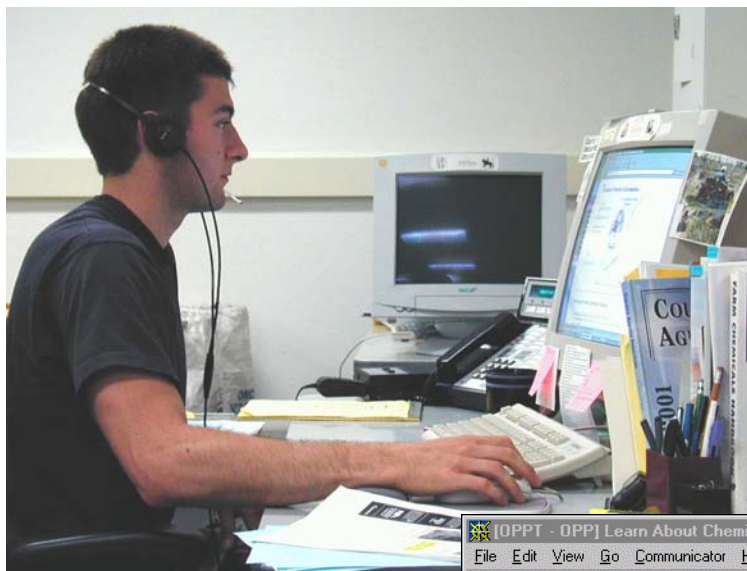
Type of Call	Number of Calls				
	1996	1997	1998	1999	2000
Information - Specific Pesticide	7757	8953	8235	8595	9941
Information - General Pesticide	9243	10482	10621	10951	10093
Incidents	1749	1559	1562	1962	2193
Human Incidents	1067	1026	939	1258	1215
Animal Incidents	327	311	352	426	561
Building/Other	355	221	271	278	416
Other - Non-Pesticide	822	843	1299	1213	820
Grant Year Total =	19571	21837	21717	22721	23047

Origin of Calls

Table 3 summarizes the origin of inquiries received by NPTN. Most inquiries are received by telephone. Of the 23,047 inquiries, 21,838 (94.8%) were received by telephone, 615 (2.7%) were recorded by a voice mail system, 48 (0.2%) were received by postal mail, 2 were walk-in inquiries, and 544 (2.4%) were by email. NPTN received an additional 120 email responses in follow-up to previous email inquiries.

**Table 3 -
Origin of Calls to NPTN**

Origin of Call	Number of Calls				
	1996	1997	1998	1999	2000
Telephone	18901	21005	20950	21769	21838
Voice Mail	455	542	470	483	615
Mail	129	126	40	73	48
Walk In	10	6	4	7	2
E-Mail	-	-	215	380	544
Other	76	158	38	9	0
Grant Year Total =	19571	21837	21717	22721	23047



OPPT - OPP | Learn About Chemicals In Your Home - Netscape

File Edit View Go Communicator Help

Bookmarks Netsite: <http://www.epa.gov/opptinr/kids/hometour/index.htm> What's Related

EPA
United States Environmental Protection Agency

Office of Pollution Prevention & Toxics
Office of Pesticide Programs

Learn About Chemicals Around Your House

There are many household products used around your home. What do you know about them? **Join us for a house tour** and learn more about the chemicals around your home.

Navigation links: House Tour, What is a Pesticide?, What is a Toxic Substance?, About Labels, If you have an accident, 10+ Most Asked Questions, **Puzzler**, Test Your Knowledge

Address bar: <http://www.epa.gov/pesticides/kids/hometour/activities/pu...>

Web Site Access

The NPTN World Wide Web site continues to be a popular source of information for NPTN clientele. The NPTN web site received 299,678 hits and the NAIN web site 115,321 hits. Figure 4 summarizes, by month, the number of web site hits received by NPTN and NAIN during 2000. Table 4 shows the number of hits for various pages on the NPTN web site, and Figure 4a details the number of hits for NPTN fact sheets (>53,000 hits total).

Table 4 - Hits for Pages on the NPTN Web Site

Page(s) Accessed	# of Hits NPTN
General Information	9574
Technical Information	11950
Fact Sheets	53617
State Regulatory Agencies	10727
Searches for NPTN Info	1786
Recognition & Management of Pesticide Poisoning	18028
Manufacturer Info	6561

Figure 4 - Web Site Hits for NPTN and NAIN

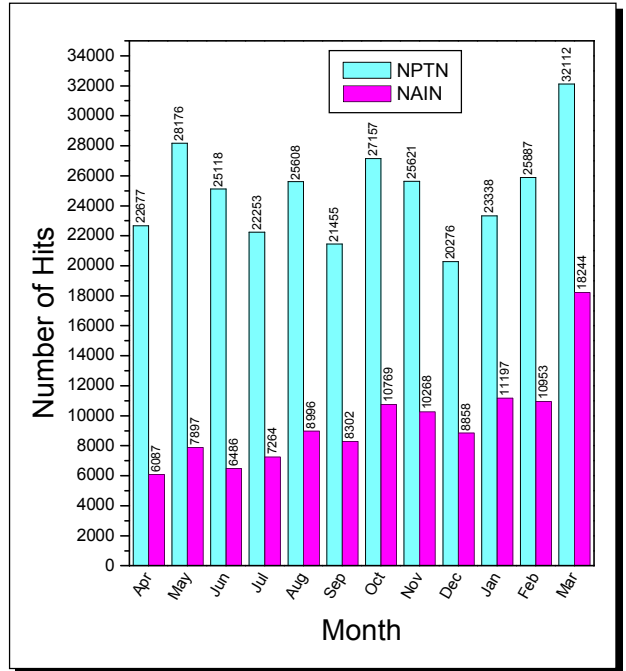
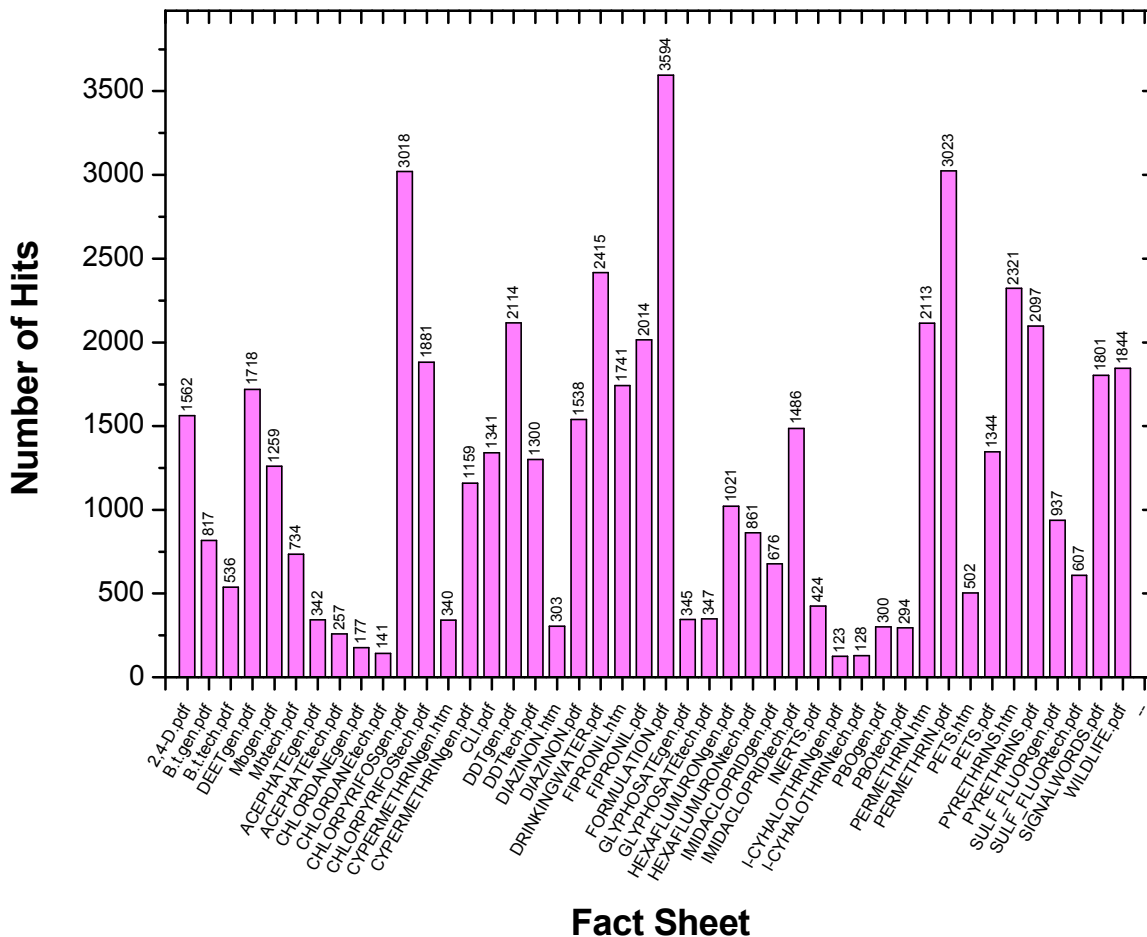


Figure 4a - Hits for NPTN Fact Sheets

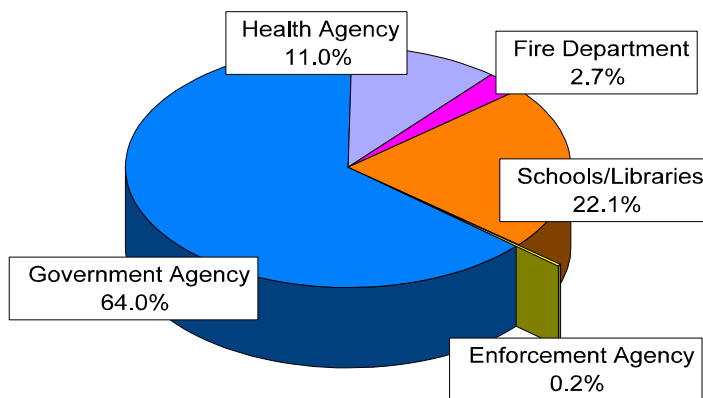


Type of Caller

Figures 5 and 6 and Table 5 summarize the profession/occupation of individuals contacting NPTN. The majority of calls made to NPTN are from the general public. Of the 23,047 inquiries received, there were 20,209 (87.7%) from the general public; 946 (4.1%) from federal, state, or local government agencies; 546 (2.4%) from human and animal medical personnel; 442 (1.9%) from information groups including the media, unions, environmental organizations and pesticide manufacturing or marketing companies; 597 (2.6%) from consumer users including legal or insurance representatives,

laboratory or consulting personnel, pest control operators, retail store personnel, or farm personnel; and 307 (1.3%) calls from other professions/occupations.

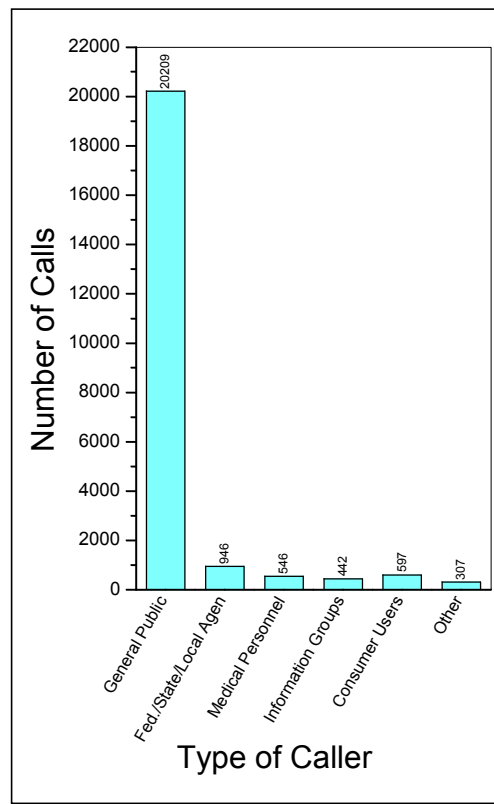
**Figure 6 -
Inquiries from
Federal/State/Local Agencies**



**Figure 5 -
Type of Caller**

**Table 5 -
Type of Caller to NPTN**

Type of Caller	Number of Calls				
	1996	1997	1998	1999	2000
General Public	16743	18304	18802	20041	20209
Federal/State/Local Agency					
Health Agency	101	120	171	143	104
Government Agency	446	637	564	572	605
Enforcement Agency	50	67	43	11	2
Schools/Libraries	222	280	261	154	209
Fire Department	26	26	31	28	26
Medical Personnel					
Human Medical	423	532	395	351	290
Animal Vet./Clinic	147	159	168	195	252
Migrant Clinic	10	16	3	9	4
Information Groups					
Media	165	228	162	133	142
Unions/Info. Service	96	104	68	61	51
Environmental Org.	139	191	150	156	113
Pesticide Mfg./Mktg. Co.	136	158	133	106	136
Consumer Users					
Lawyer/Insurance	143	129	69	76	107
Lab./Consulting	176	149	96	105	100
Pest Control	167	227	202	131	149
Retail Store	49	57	51	154	197
Farm	65	67	57	50	44
Other	267	386	291	245	307
Grant Year Total =	19571	21837	21717	22721	23047

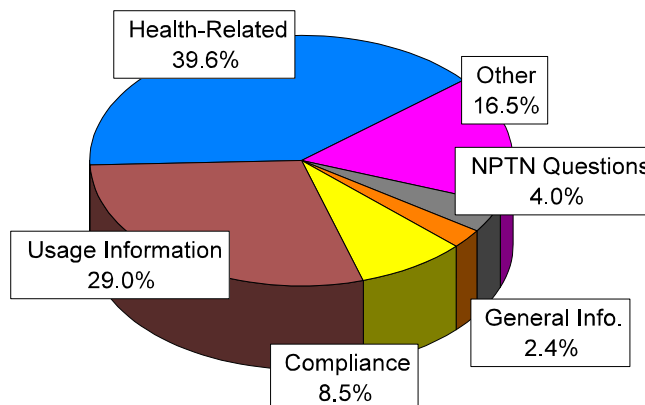


Type of Question

The types of questions received at NPTN are most often related to health effects of pesticides (Figure 7 and Table 6). NPTN responded to 8,921 (39.6%) inquiries related to health effects of pesticides, including inquiries about general health, treatment and testing, and laboratory questions. NPTN responded to 6,693 (29.0%) inquiries involving requests for pesticide usage information, including questions about use on specific pests or crops, chemical information, pros and cons of application, safety and application questions, cleanup questions, questions about harvest intervals, and lawn care usage questions.

NPTN responded to 1,959 (8.5%) inquiries involving compliance questions, including questions about regulations, disposal, and complaints. Additionally, NPTN responded to 10 inquiries about the FQPA, 189 (0.8%) inquiries about other food safety issues, 5 inquiries about a Consumer Reports article, 544 (2.4%) inquiries involving general pesticide questions, 918 (4.0%) inquiries involving questions about NPTN, and 3,796 (16.5%) inquiries not classified according to type of question.

**Figure 7 -
Type of Question**



**Table 6 -
Type of Question
Asked by Callers to NPTN**

Type of Question	Number of Calls				
	1996	1997	1998	1999	2000
Health Related					
Health	8363	7997	8396	8976	8717
Treatment	158	238	284	151	100
Testing Lab.	97	114	115	84	104
Usage Information					
Pest/Crop	1267	1437	1575	1846	1570
Chemical	1202	1865	2111	2196	2482
Pros and Cons	181	185	104	55	74
Safety/Application	655	1040	531	686	2038
Cleanup	283	312	252	270	376
Harvest Intervals	69	105	89	64	123
Lawn Care	51	54	43	30	30
Compliance					
Regulations	1201	1567	1714	1587	1427
Complaints	233	279	328	288	321
Disposal	166	197	236	174	211
FQPA	-	-	33	31	10
Food Safety	-	-	42	227	189
Consumer Report Article	-	-	18	5	5
General	1845	1026	653	619	544
NPTN Questions	1033	1407	1266	1185	918
Non-Pesticide Related	127	5	5	1	12
Other	2640	4009	3922	4246	3796
Grant Year Total =	19571	21837	21717	22721	23047

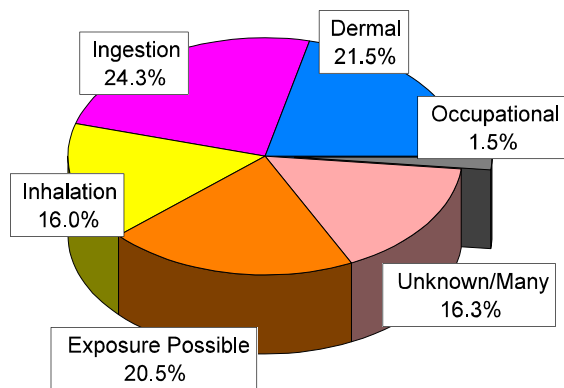
Reason for Inquiry

Pesticide Specialists identify the reason for inquiry for all calls received by NPTN (Table 7 and Figures 8 and 9). The reason for inquiry for all information calls is Concern/Knowledge. The reason for inquiry for incident calls varies according to the nature of the incident. Of the 2,098 incident calls for which a reason for the call was available, there were 1,584 (75.5%) about pesticide exposure, and 514 (24.5%) about accidents. There were 77 inquiries about odor only, and 39 (1.8%) other calls for other reasons. The reason for all other (non-pesticide) calls is N/A-Unknown.

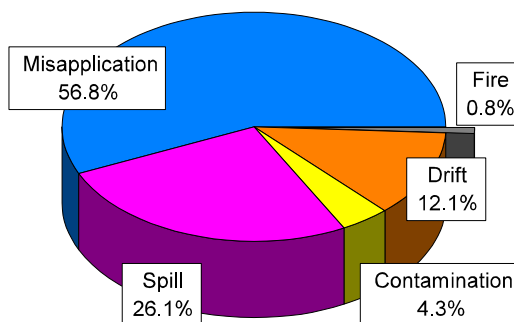
**Table 7 -
Reason for Inquiry to NPTN**

Reason for Inquiry	Number of Calls				
	1996	1997	1998	1999	2000
Information Calls					
Concern/Knowledge	17313	20020	19817	20474	20719
Incident Calls					
Exposures					
Dermal - Acute	239	201	200	293	336
Dermal - Chronic	32	13	13	15	4
Ingestion - Acute	175	178	228	298	382
Ingestion - Chronic	8	3	7	4	3
Inhalation - Acute	241	176	147	308	248
Inhalation - Chronic	61	43	22	25	6
Exposure Possible	357	311	335	314	324
Unknown/Many	54	83	133	211	258
Occupational	39	42	22	17	23
Accidents					
Misapplic. - Homeowner	116	101	120	137	189
Misapplic. - PCO	84	111	80	70	72
Misapplic. - Other	22	39	32	37	31
Spill - Indoor	47	55	75	75	115
Spill - Outdoor	18	15	29	20	19
Contamination - Home	25	21	15	6	11
Contamination - Other	26	16	8	9	11
Drift	81	59	51	60	62
Fire - Home	2	1	0	1	1
Fire - Other	0	0	2	1	3
Industrial Accident	0	0	0	0	0
Odor Only	80	58	28	55	77
Testing Laboratory	2	1	0	1	0
Other	76	36	26	21	39
N/A-Unknown	473	254	327	269	114
Grant Year Total =	19571	21837	21717	22721	23047

**Figure 8 -
Pesticide Exposures**



**Figure 9 -
Pesticide Accidents**



Action Taken by NPTN

NPTN Specialists respond to inquiries in many ways, including the provision of verbal information, referrals to other agencies or organizations, and hard-copy information sent by mail, fax, or email. Actions taken by Pesticide Specialists in response to inquiries are summarized in Figures 10 and 11 and Table 8. Most inquiries (19,277; 83.6%) were answered by providing verbal information to the caller. If

Figure 10 - Action Taken by NPTN

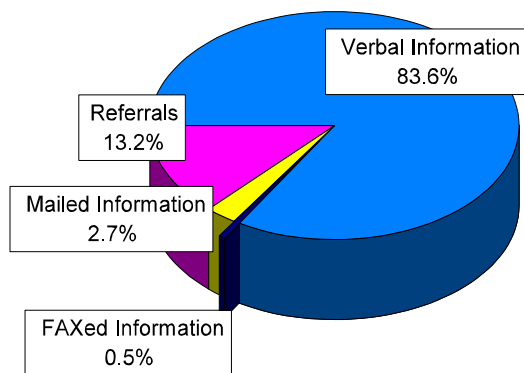
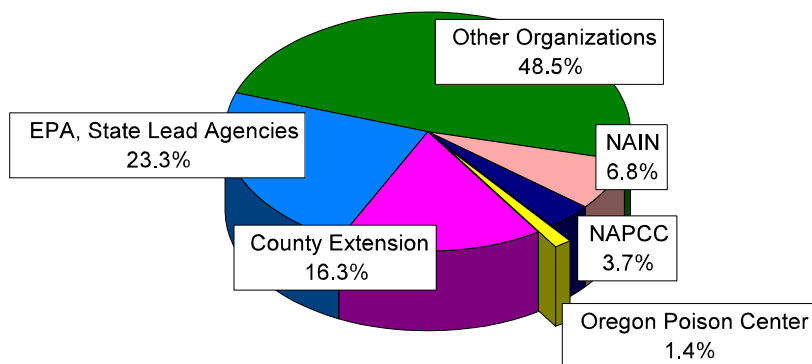


Table 8 - Action Taken by NPTN

Action Taken	Number of Calls				
	1996	1997	1998	1999	2000
Verbal Information	15078	17948	18180	17070	19277
Referrals to:					
EPA, State Lead Agencies, National Pesticide Medical Monitoring Program	1363	1404	1095	1245	708
County Extension	500	490	583	1435	495
Oregon Poison Center	45	42	112	72	43
National Animal Poison Control Center	152	77	155	81	112
National Antimicrobial Information Network	208	214	178	213	207
Other Organizations	1086	915	973	1992	1475
Mailed Information, Brochure, Publication	802	576	340	472	611
Other/FAXED Information	337	171	101	141	119
Grant Year Total =	19571	21837	21717	22721	23047

Specialists determine that other agencies or organizations are better able to respond to an inquiry than NPTN, a referral is made. Referrals were made for 3,040 (13.2%) calls. Common NPTN referrals include referrals to the EPA, state lead agencies or the National Pesticide Medical Monitoring Program; referrals to county extension services; referrals to Oregon Poison Center and National Animal Poison Center; and referrals to the National Antimicrobial Information Network (NAIN). Some callers (730; 2.2%) received hard-copy information via mail or FAX.

Figure 11 - Referrals Made

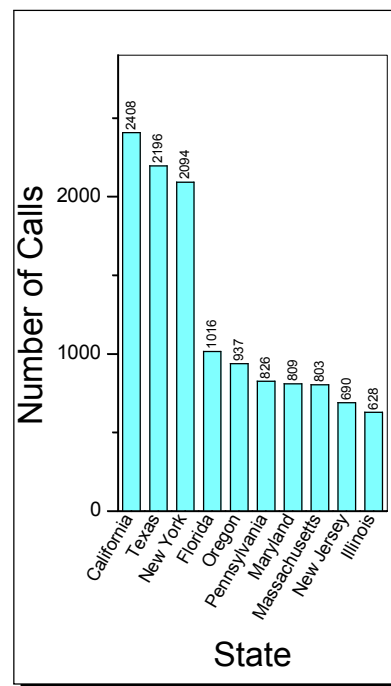


Calls Listed by State

Table 9 lists the number of calls received by NPTN from each state. The largest number of calls were received from California, Texas, and New York—states ranked 1, 3, and 2, respectively, in terms of population (Figure 12). Figure 13 summarizes calls by EPA region. NPTN received 12.7% of calls made from Region 9, 12.2% from Region 2, 12.0% from Region 4, 11.7% from Region 6, and 11.3% from Region 3.



**Figure 12 -
Top 10 States Using NPTN**

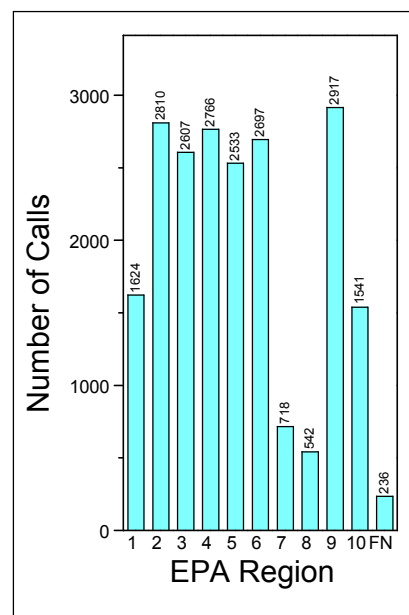


**Table 9 -
Listing of States and Foreign Nations Using NPTN**

EPA Region	State Code	State	Number of Calls
		Not recorded	2057
10	AK	Alaska	24
4	AL	Alabama	251
6	AR	Arkansas	94
9	AZ	Arizona	306
9	CA	California	2408
FN	CN	Canada	134
8	CO	Colorado	312
1	CT	Connecticut	440
3	DC	District of Columbia	260
3	DE	Delaware	46
4	FL	Florida	1016
FN	FN	Foreign	102
4	GA	Georgia	382
9	HI	Hawaii	89
7	IA	Iowa	132
10	ID	Idaho	82
5	IL	Illinois	628
5	IN	Indiana	211
7	KS	Kansas	166
4	KY	Kentucky	156
6	LA	Louisiana	171
1	MA	Massachusetts	803
3	MD	Maryland	809
1	ME	Maine	68
5	MI	Michigan	573
5	MN	Minnesota	296
7	MO	Missouri	312

4	MS	Mississippi	90
8	MT	Montana	63
4	NC	North Carolina	464
8	ND	North Dakota	27
7	NE	Nebraska	110
1	NH	New Hampshire	124
2	NJ	New Jersey	690
6	NM	New Mexico	110
9	NV	Nevada	113
2	NY	New York	2094
5	OH	Ohio	562
6	OK	Oklahoma	129
10	OR	Oregon	937
3	PA	Pennsylvania	826
2	PR	Puerto Rico	24
1	RI	Rhode Island	130
4	SC	South Carolina	124
8	SD	South Dakota	33
4	TN	Tennessee	277
6	TX	Texas	2196
8	UT	Utah	83
3	VA	Virginia	563
2	VI	Virgin Islands	1
1	VT	Vermont	58
10	WA	Washington	498
5	WI	Wisconsin	265
3	WV	West Virginia	103
8	WY	Wyoming	25
		Total =	23047

**Figure 13 -
Calls to NPTN by EPA Region**



Top 10 Active Ingredients In All Calls

When calls to NPTN involve discussion of a specific product or active ingredient, the Pesticide Specialist records the product and the active ingredient in the NPTN Pesticide Incident Database. The active ingredient chlorpyrifos was discussed in more calls than any other single active ingredient (Table 10). Of the 1,569 calls involving chlorpyrifos, 285 (18.1%) were incident calls and

1,285 (81.9%) were calls for general information. See Table 10 and Figure 14 for this and similar information for the 25 active ingredients most commonly discussed in calls made to NPTN. Note that a call may involve

Figure 14 - Top 10 Active Ingredients in All Calls

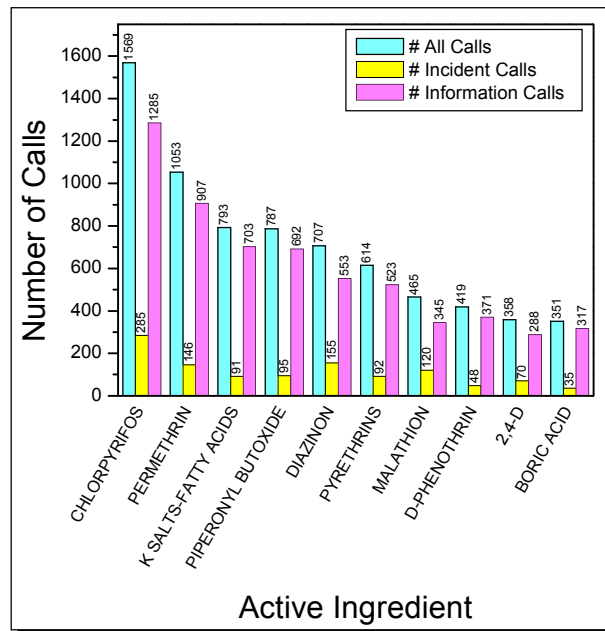


Table 10 - Top 25 Active Ingredients for All Calls to NPTN

Active Ingredient	Total Calls	Incident ¹⁾ Calls	Information Calls
CHLORPYRIFOS	1569	285 (14)	1285
PERMETHRIN	1053	146 (26)	907
POTASSIUM SALTS OF FATTY ACIDS	793	91 (4)	703
PIPERONYL BUTOXIDE	787	95 (5)	692
DIAZINON	707	155 (13)	553
PYRETHRINS	614	92 (5)	523
MALATHION	465	120 (4)	345
D-PHENOTHRIN	419	48 (8)	371
2,4-D	358	70 (4)	288
BORIC ACID	351	35 (1)	317
IMIDACLOPRID	341	38 (0)	304
CARBARYL	326	72 (3)	254
GLYPHOSATE	310	64 (0)	246
CYFLUTHRIN	298	34 (0)	264
SULFUR	293	40 (2)	253
DICAMBA	256	68 (4)	188
METALDEHYDE	239	95 (8)	144
FIPRONIL	234	25 (1)	210
BACILLUS THURINGIENSIS	233	20 (1)	213
MECOPROP	233	62 (2)	172
CYPERMETHRIN	231	43 (2)	188
DELTA METHRIN	221	28 (3)	193
SULFURYL FLUORIDE	220	12 (0)	208
BENDIOCARB	218	26 (1)	192
RESMETHRIN	218	23 (0)	195
Total - Above Pesticides =	10987	1787 (111)	9208

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).

discussion of more than one active ingredient; thus totals reflect the number of times active ingredients are discussed during the course of all calls. Table 10 also shows the number of times a certainty index of 1 or 2 was assigned to these incident calls. The certainty index is an estimate by NPTN as to whether the incident was 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 zero (0) is assigned to those calls where the caller reported an exposure, accident, or odor, but no health effects were reported. Of the 285 times that chlorpyrifos was mentioned during incident calls in which effects were reported, 4.9% of the cases were assigned a certainty index of 1 (definite) or 2 (probable).

Top 10 Active Ingredients in Incident Calls

The most common active ingredients reported during incident calls are listed in Table 11 and Figure 15. Table 11 also summarizes the number of human and animal entities involved in reported incidents of exposure to specific active ingredients. Chlorpyrifos was reported to be involved in more incidents than any other active ingredient. Of the 1,502 times that one of the other top 25 active ingredients was

mentioned during incident calls in which human or animal entities were involved, 6.5% of the cases were assigned a certainty index of 1 (definite) or 2 (probable).

Figure 15 - Top 10 Active Ingredients in Incident Calls

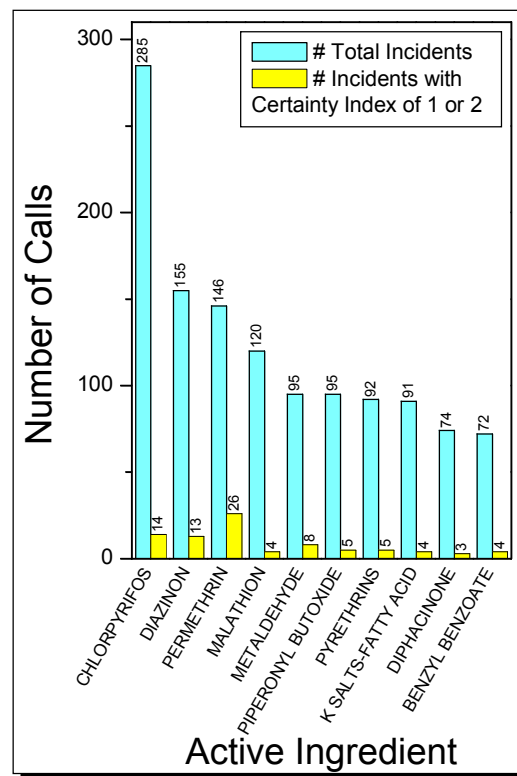


Table 11 - Top 25 Active Ingredients for Incident Calls

Active Ingredient	Total Incidents ¹⁾	Human Incidents	Animal Incidents	Other Incidents	Information Calls
CHLORPYRIFOS	285 (14)	209 (14)	26 (0)	50 (0)	1285
DIAZINON	155 (13)	100 (9)	17 (4)	38 (0)	553
PERMETHRIN	146 (26)	87 (6)	40 (20)	19 (0)	907
MALATHION	120 (4)	73 (4)	3 (0)	44 (0)	345
METALDEHYDE	95 (8)	11 (0)	80 (8)	4 (0)	144
PIPERONYL BUTOXIDE	95 (5)	78 (3)	7 (2)	10 (0)	692
PYRETHRINS	92 (5)	72 (4)	8 (1)	12 (0)	523
POTASSIUM SALTS OF FATTY ACIDS	91 (4)	42 (4)	25 (0)	24 (0)	703
DIPHACINONE	74 (3)	5 (0)	68 (3)	1 (0)	44
BENZYL BENZOATE	72 (4)	68 (4)	2 (0)	2 (0)	106
CARBARYL	72 (3)	34 (1)	16 (2)	22 (0)	254
2,4-D	70 (4)	35 (3)	13 (1)	22 (0)	288
DICAMBA	68 (4)	50 (4)	7 (0)	11 (0)	188
GLYPHOSATE	64 (0)	40 (0)	4 (0)	20 (0)	246
MECOPROP	62 (2)	43 (2)	10 (0)	9 (0)	172
D-PHENOTHRLIN	48 (8)	30 (2)	10 (6)	8 (0)	371
CYPERMETHRIN	43 (2)	34 (2)	5 (0)	4 (0)	188
SULFUR	40 (2)	18 (2)	10 (0)	12 (0)	253
IMIDACLOPRID	38 (0)	23 (0)	2 (0)	13 (0)	304
MCPA	37 (1)	31 (1)	3 (0)	3 (0)	63
BORIC ACID	35 (1)	19 (0)	12 (1)	4 (0)	317
CYFLUTHRIN	34 (0)	26 (0)	4 (0)	4 (0)	264
D-TRANS-ALLETHRIN	32 (1)	24 (1)	4 (0)	4 (0)	61
N-OCTYL BICYCLOHEPTENE DICARBO	31 (2)	23 (1)	4 (1)	4 (0)	137
CAPTAN	29 (0)	12 (0)	3 (0)	14 (0)	115
Total - Above Pesticides	1928 (116)	1187 (67)	383 (49)	358 (0)	8523

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).

It is interesting to note that, even though more calls were received about chlorpyrifos than any other active ingredient, 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.

Location of Incident

For incident calls, the NPTN Specialist records the reported location of the reported exposure, accident, or odor. Of the 1,977 known locations where incidents occurred, 86.2% occurred in the home or yard, 6.2% occurred in an agricultural setting, and 3.3% occurred in an office building or school (Table 12).

**Table 12 -
Location Where Exposure to a Pesticide Occurred**

Location	Number of Incident ¹⁾ Calls				
	1996	1997	1998	1999	2000
Unclear/Unknown	482 (40)	14 (3)	32 (6)	105 (13)	115 (12)
Home or Yard	902 (152)	1148 (129)	1246 (97)	1565 (121)	1704 (104)
Agriculturally Related	115 (21)	131 (22)	91 (8)	114 (14)	122 (7)
Industrially Related	16 (3)	11 (0)	12 (1)	13 (1)	12 (1)
Office Building, School	52 (9)	75 (10)	65 (2)	39 (2)	65 (1)
Pond, Lake, Stream Related	4 (1)	6 (3)	5 (0)	9 (2)	8 (0)
Nursery, Greenhouse	9 (1)	10 (1)	10 (0)	9 (1)	13 (0)
Food Service/Restaurants	6 (0)	4 (1)	4 (0)	5 (1)	2 (0)
Retail Store/Business	15 (6)	14 (3)	17 (2)	15 (3)	19 (1)
Roadside/Right-of-Way	15 (0)	17 (1)	9 (1)	8 (0)	15 (0)
Park/Golf Course	7 (1)	7 (0)	9 (1)	8 (0)	17 (1)
Other	126 (20)	122 (28)	62 (12)	72 (6)	101 (14)
Total =	1749 (254)	1559 (201)	1562 (130)	1962 (164)	2193 (141)

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).



Environmental Impact

NPTN Specialists also record reported environmental impacts discussed in incident calls. See Table 13. The most common reported environmental impacts are damage to property and damage to plant material, including food crops and other plants or trees. Multiple environmental impacts may be reported for each incident call; thus totals reflect the number of times these sites were discussed during the course of all incident calls. Of the 476 times that a specific environmental impact was reported, 2.8% of the cases were assigned a certainty index of 1 (definite) or 2 (probable).

**Table 13 -
Reported Environmental Impact
from Pesticide Incidents**

Environmental Impact	Number of Incident ¹⁾ Calls				
	1996	1997	1998	1999	2000
Air	32 (4)	35 (8)	13 (0)	11 (0)	23 (0)
Water	19 (1)	15 (1)	17 (1)	9 (1)	15 (2)
Soil	22 (3)	41 (6)	21 (3)	15 (3)	23 (0)
Food Crops/Process	60 (3)	44 (4)	38 (0)	40 (1)	83 (0)
Property	131 (19)	120 (14)	93 (7)	136 (6)	234 (8)
Poultry/Livestock	9 (4)	7 (0)	3 (1)	13 (2)	7 (1)
Plants/Trees	26 (2)	44 (4)	25 (2)	48 (1)	71 (2)
Not Applicable	1431 (215)	1211 (154)	1333 (112)	1675 (147)	1728 (125)
Other	19 (3)	42 (10)	19 (4)	15 (3)	9 (3)
Total =	1749 (254)	1559 (201)	1562 (130)	1962 (164)	2193 (141)

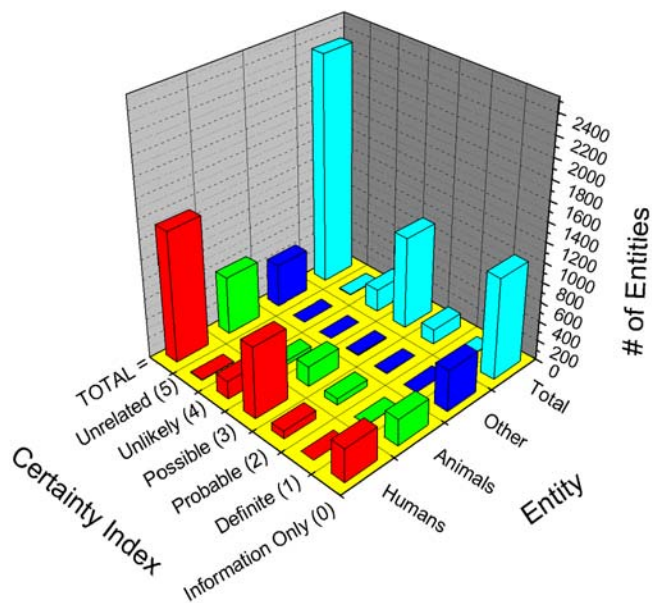
¹⁾ First number represents the total of purported incidents regardless of certainty index - numbers in parentheses indicate the total of incidents with certainty index of 1 (definite) or 2 (probable).



Certainty Index

Table 14 and Figure 16 summarize the assignment of certainty indexes for all incident calls received by NPTN. Calls are sorted according to type of entity; human entities are further sorted according to gender and groups of entities. Multiple entities may be discussed in one incident call; thus totals reflect the number of entities (as opposed to number of incidents) discussed during the course of incident calls to NPTN. Of the total number of entities (2,355) discussed in incident calls to NPTN, 0.1% of the cases were assigned a certainty index of definite (1), 6.4% of the cases were assigned a certainty index of probable (2), 40.0% of the cases were assigned a certainty index of possible (3), 9.6% of the cases were assigned a certainty index of unlikely (4), 0.3% of the cases were assigned a certainty index of unrelated index of (5), 43.7% of the cases did not involve effects and so were assigned the certainty index of zero (0), information only.

**Figure 16 -
Certainty Index for Entities**



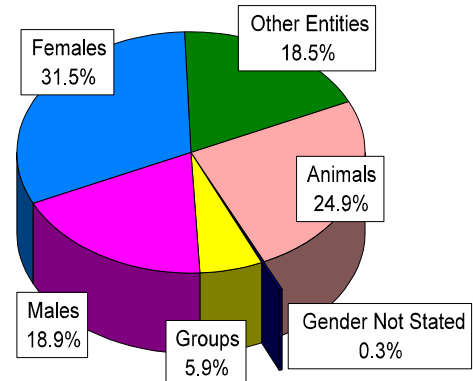
**Table 14 -
Incident Calls Sorted by Certainty Index (CI)**

CI for All Categories of Entities					Breakdown of Human Entity Incident Calls			
Certainty Index	Humans	Animals	Other	Total	Male	Female	Groups	Gender Not Stated
Total Calls in Operational Year = 23,047								
Non-Incident Calls = 21,840								
Information Only (0)	337	268	423	1028	118	177	40	2
Definite (1)	2	1	0	3	1	1	0	0
Probable (2)	81	69	1	151	34	38	7	2
Possible (3)	722	204	13	939	233	406	79	4
Unlikely (4)	183	43	0	226	58	113	12	0
Unrelated (5)	8	0	0	8	2	6	0	0
TOTAL =	1333	585	437	2355	446	741	138	8

Description of Entities

Table 15 and Figure 17 provide a more detailed summary of categories of entities discussed in incident calls. Of the 2,358 entities involved in incidents reported to NPTN, 56.6% were human, 24.9% animal, and 18.5% were other types of non-target entities (building or environment, for example).

**Figure 17 -
Description of Entities**



**Table 15 -
Description of Entities Involved in Reported Incidents**

Description of Entities	Number of Entities ¹⁾				
	1996	1997	1998	1999	2000
All females -					
Female	562 (91)	555 (76)	502 (37)	686 (44)	692 (39)
Female-pregnant	36 (2)	22 (1)	12 (0)	24 (1)	49 (0)
Female suicide attempt	1 (0)	2 (1)	3 (1)	0 (0)	1 (0)
Total all females =	599 (93)	579 (78)	517 (38)	710 (45)	742 (39)
All males -					
Male	397 (75)	407 (79)	367 (35)	452 (48)	445 (35)
Male suicide attempt	0 (0)	1 (1)	2 (0)	4 (0)	1 (0)
Total all males =	397 (75)	408 (80)	369 (35)	456 (48)	446 (35)
All groups -					
Family	90 (15)	88 (10)	94 (7)	138 (12)	98 (3)
Non-family group	33 (5)	32 (7)	31 (2)	27 (1)	40 (4)
Total all groups =	123 (20)	120 (17)	125 (9)	165 (13)	138 (7)
Gender not stated -					
Child - sex unknown	16 (4)	15 (1)	7 (1)	9 (0)	1 (0)
Adult - sex unknown	0 (0)	0 (0)	0 (0)	1 (0)	1 (1)
Other - sex unknown	4 (0)	22 (4)	12 (0)	15 (1)	6 (1)
Total gender not stated =	20 (4)	37 (5)	19 (1)	25 (1)	8 (2)
Total all humans =	1139 (192)	1144 (180)	1030 (83)	1356 (107)	1334 (83)
All animals -					
Single animal	273 (57)	259 (42)	312 (39)	371 (53)	513 (53)
Group of animals	47 (13)	57 (15)	45 (16)	70 (16)	70 (16)
Wildlife	19 (4)	6 (1)	2 (1)	3 (0)	4 (1)
Total all animals =	339 (74)	322 (58)	359 (56)	444 (69)	587 (70)
Other entities:					
Building-home/office	147 (7)	88 (2)	135 (0)	123 (1)	155 (0)
Other places	214 (6)	138 (2)	144 (1)	161 (0)	282 (1)
Total other entities =	361 (13)	226 (4)	279 (1)	284 (1)	437 (1)
Total all entities =	1839 (279)	1692 (242)	1668 (140)	2084 (177)	2358 (154)

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).

Entity Symptoms

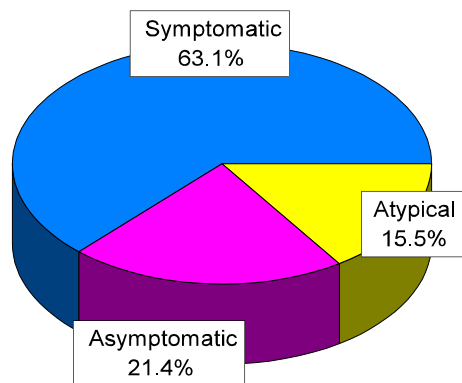
Of the 1,334 human entities discussed in incident reports to NPTN, symptoms, or absence of symptoms, were reported for 1,190 entities (Table 16). Of these entities, 63.1% reported symptomatic health effects (effects that are consistent with a significant exposure to the pesticide in question), 21.4% reported asymptomatic health effects, and 15.5% reported atypical health effects (Figure 18). Table 16 and Figure 19 provide this and similar information for animal entities.

**Table 16 -
Reported Symptoms of
Entities Involved in Incident Calls**

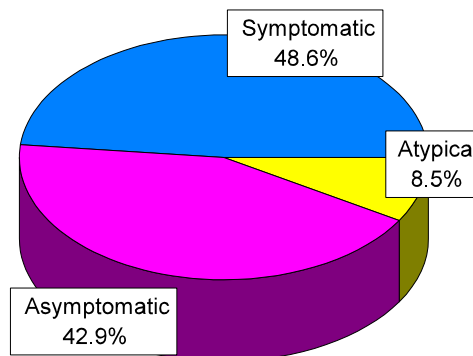
Reported Symptoms	Number of Entities ¹⁾				
	1996	1997	1998	1999	2000
Human symptoms -					
Symptomatic	605 (187)	651 (202)	614 (138)	843 (188)	751 (160)
Asymptomatic	145 (29)	164 (16)	180 (24)	240 (15)	255 (30)
Atypical	221 (21)	227 (17)	174 (19)	178 (15)	184 (26)
Total humans =	971 (237)	1042 (235)	968 (181)	1261 (218)	1190 (216)
Animal symptoms -					
Symptomatic	169 (70)	162 (64)	165 (59)	201 (81)	273 (91)
Asymptomatic	78 (8)	108 (6)	147 (5)	196 (1)	241 (13)
Atypical	54 (5)	54 (3)	48 (5)	44 (4)	48 (7)
Total animals =	301 (83)	324 (73)	360 (69)	441 (86)	562 (111)
Total symptoms =	1272 (320)	1366 (308)	1328 (250)	1702 (304)	1752 (327)

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 18 -
Symptoms - Humans**



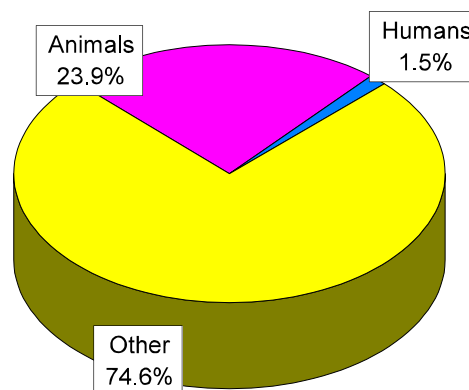
**Figure 19 -
Symptoms - Animals**



Deaths and Other Outcomes

Amongst the 1,334 human entities, 1 death was reported (Table 17). Based on information provided by the caller, this incident was not assigned a certainty index of 1 or 2, making it unlikely that the death was a result of pesticide exposure. This person may have been exposed to pesticides from an aerial application while out in an agricultural field. No information was provided about date, frequency, duration, or level of exposure to pesticides. Of the 562 animal victims, there were 49 deaths, with 14 of the cases assigned a certainty index of 1 or 2, indicating likely pesticide involvement. Table 17 and Figure 20 summarize this information and also list the number of entities associated with life threatening conditions or interesting or strange circumstances.

**Figure 20 -
Deaths and Other Outcomes**



**Table 17 -
Additional Outcomes for Entities Involved in Incidents**

Additional Outcome	Number of Entities ¹⁾				
	1996	1997	1998	1999	2000
Human deaths -					
Male	3 (1)	1 (0)	2 (0)	4 (0)	1 (0)
Female	0 (0)	1 (0)	1 (1)	1 (0)	0 (0)
Total human deaths	3 (1)	2 (0)	3 (1)	5 (0)	1 (0)
Animal deaths -					
Single animal	18 (7)	16 (7)	27 (4)	22 (11)	27 (7)
Group of animals	13 (7)	14 (4)	20 (10)	25 (10)	20 (6)
Wildlife	10 (1)	4 (1)	2 (1)	2 (0)	2 (1)
Total animal deaths =	41 (15)	34 (12)	48 (15)	49 (21)	49 (14)
Other -					
Life threatening	7 (4)	0 (0)	5 (1)	4 (4)	6 (3)
Interesting/strange	50 (6)	144 (60)	60 (12)	79 (21)	141 (26)
Total other =	57 (10)	144 (60)	65 (13)	83 (25)	147 (29)
Total additional outcomes =	101 (26)	180 (72)	117 (29)	137 (46)	197 (43)

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).

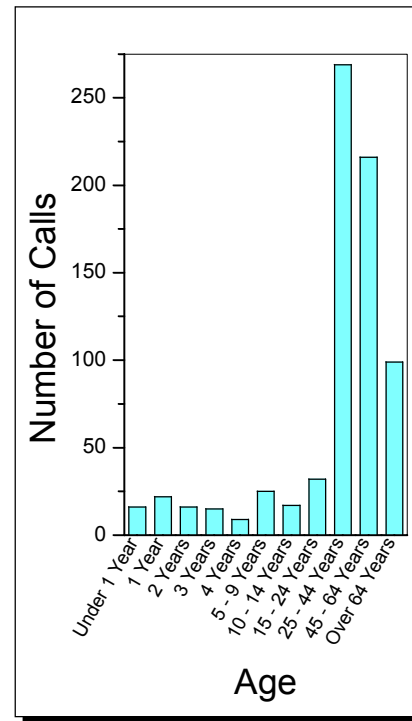
Entity Age

Entity ages were available for 736 of the 1,334 human entities. Table 18 and Figure 21 summarize information about the ages of human entities discussed in incident calls to NPTN. Of these 736 entities, 10.6% were less than 5 years of age, 5.7% were between the ages of 5 and 14, 4.4% were between the ages of 15 and 24, 65.9% were between the ages of 25 and 64, and 13.5% were over age 64.

**Table 18 -
Reported Ages of
Human Entities Involved in Incidents**

Age Category	Number of Entities				
	1996	1997	1998	1999	2000
Under 1 Year	24	42	49	39	6
1 Year	25	36	39	25	22
2 Years	30	19	41	42	16
3 Years	8	21	23	18	15
4 Years	15	13	29	13	9
5 - 9 Years	41	51	68	55	25
10 - 14 Years	17	30	19	30	17
15 - 24 Years	34	33	28	45	32
25 - 44 Years	257	276	245	200	269
45 - 64 Years	198	226	196	184	216
Over 64 Years	66	83	73	78	99

**Figure 21 -
Age of Human Entities**



Report on Subcontracts

Oregon Poison Center

NPTN Pesticide Specialists transferred 43 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 present information for the calls transferred in that quarter.

National Animal Poison Control Center

In the current year, 112 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. The nature of the calls transferred is detailed in the NPTN Quarterly Reports.

Sub-Projects

National Antimicrobial Information Network (NAIN)

The National Antimicrobial Information Network (NAIN), operated in association with the National Pesticide Telecommunications Network, is a toll-free telephone service that provides antimicrobial pesticide information via telephone and the Internet. Information is provided to health care and antimicrobial industry professionals, and to the general public. NAIN helps callers understand product labels and permitted uses for specific products; provides lists of products registered as sterilants,

tuberculocides, and products effective against HIV and HBV/HIV; provides toxicology, health effect and safety information on specific antimicrobial active ingredients; supplies information on regulation and registration of antimicrobials in the United States; fields complaints on product efficacy and forwards that information to the EPA; and refers requests that are outside of the scope of NAIN services to the correct agencies and resources.

NAIN received 1,667 calls during grant year 2000. Of these calls, 1,472 were for general

NAIN provides callers with a variety of antimicrobial pesticide information, including lists of products registered as sterilants, tuberculocides, and products effective against HIV and HBV/HIV, and toxicology, health effect and safety information on specific antimicrobial active ingredients.

information about antimicrobial pesticides, 7 were complaints about antimicrobials, and 16 were incidents purported to involve antimicrobials. The NAIN web site received 115,321 hits; the current rate of Internet access is about 9,600 hits/month.

NAIN hired one new part-time student worker for assistance with mail-outs and similar tasks.

NAIN staff continued monthly meetings to discuss the progress of various NAIN projects and

further their knowledge of antimicrobial pesticide related topics.

Amy Smoker attended the American Association of Pesticide Control Officers (AAPCO) meeting in Arlington, VA. Amy Smoker attended the annual NAIN/EPA program visit at EPA Headquarters in Washington, DC.

NAIN Specialists attended a variety of continuing education opportunities including: *State Pesticide Enforcement Activities and Regulations*; an *Overview of Toxicology Research Resources*; and *Current Issues and Public Perceptions Related to Biotechnology*.

Internal education seminars included: *Multiple Chemical Sensitivity*; *Customized Endnote Tutorial*; *Minimum Risk Pesticides*; *Laws and Regulations*.

Fact sheets developed by NAIN Specialists included: *Bronopol (general and technical)*; *o-Phenylphenol (general and technical)*; *Air Duct Cleaning*; and *What is an Antimicrobial Pesticide?*

NAIN has continued updating its active ingredient files with a total of 115 files being reviewed against selected references.

NAIN submits independent quarterly and annual reports to the EPA. For current, detailed information about NAIN, see the National Antimicrobial Information Network Quarterly and Annual Reports posted on the NAIN web site at <http://nain.orst.edu>.

