

In Case of Drift

A Toolkit for Responding to Pesticide Drift



**Pesticide Action Network North America
2017**

Pesticide Action Network (PAN) North America works to create a just, thriving food system. For too long, pesticide and biotech corporations have dictated how we grow food, placing the health and economic burdens of pesticide use on farmers, farmworkers and rural communities. PAN works with those on the frontlines to tackle the pesticide problem — and reclaim the future of food and farming.

PAN North America is one of five regional centers worldwide. We link local and international consumer, labor, health, environment and agriculture groups into an international citizens' action network. Together, we challenge the global proliferation of pesticides, defend basic rights to health and environmental quality, and work to ensure the transition to a just and viable food system.

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INTRODUCTION

When pesticides are applied, they can move through the air to nearby homes and farms. Drifting pesticides can be noticed as a cloud of spray droplets, as dust during application, or as a lingering unpleasant odor. However, drift can also be invisible and odorless, and can be present for several days after pesticides are applied.

So what's the impact of pesticide drift? It can pose serious health risks, especially to children, who are particularly vulnerable to the harms of chemical exposure. Health problems resulting from drift exposure can be immediate — as in the case of an acute poisoning — or long-term, like cancer, reproductive harm or developmental damage.

Additionally, drifting herbicides (plant-killing pesticides) can travel from where they're applied to harm crops in neighboring fields, undermining farmers' livelihoods and economic stability. Even when crop insurance covers loss from drift damage, this is often not enough to adequately compensate farmers for what they've lost.

This toolkit provides information about the critical steps to take to protect your health when you've personally been drifted on, how and where to report drift incidents, and how to seek compensation for crop loss if you're a farmer. We also include tools for telling your story to legislators and other policymakers.

Drift happens

In coalition with many community partners, Pesticide Action Network (PAN) works on policy solutions to reduce drift and ban the most health-harming pesticides. Local regulation to prevent drift is needed, but some chemicals drift no matter how they are applied. We need much stronger federal regulation to limit the use of volatile and health harmful pesticides. In the meantime, rural communities face real harms from pesticide drift.

We hope this guide will provide useful information and tools for responding to pesticide drift incidents.

This kit can be used whether or not you have online access. Some items cited in this kit are available online where noted, and we have additional resources linked on PAN's website at www.panna.org/In-Case-of-Drift.

According to scientists, 95-98 percent of applied pesticides miss their intended mark.



If you have comments, suggestions or questions regarding this document, please contact Linda Wells, Midwest Director of Organizing, at linda@panna.org or call 612-284-5023 x318.

QUICK GUIDE: Responding to pesticide drift

1. **Protect your health.** Leave the area, and warn your neighbors in person or by phone that you suspect pesticide drift is present. Encourage anyone who might be exposed to leave the area as well. If you think you've been exposed to pesticides, get help right away from a doctor, go to a hospital, and/or call Poison Control Centers at (800) 222-1222. Remove contaminated clothing as soon as possible, then put it in a paper bag and seal that in a plastic bag to save as evidence. Shower immediately.
2. **Report.** Right away, report the incident to your state agency or, if you live in Indian Country, report it to your tribal environmental department. See the "REPORT" section for information on relevant agencies, including contact details.
3. **Observe & keep records.** Write down the relevant incident details such as date, time, location and how it occurred. Be sure to include any observations about the incident. You can use the help guide in the "OBSERVE" section to ensure you gather all of the salient details.
4. **Follow up.** Contact your state or tribal agency to make sure the incident has been responded to appropriately.
5. **Share your story.** Share your pesticide drift experience with policymakers — or plug into local advocacy opportunities in your area to support stronger drift protections.



Source: "A threat of pesticides in our Air," Californians for Pesticide Reform (CPR), 2009.

PROTECT YOUR HEALTH

Symptoms associated with acute exposure to pesticides are often described as flu-like. **Acute exposure** (e.g. poisonings or high-exposure events) can result in immediate illness and symptoms can occur very soon after exposure, or after a brief delay. The symptoms may include: nausea, vomiting, dizziness, nose or throat irritation; difficulty breathing; skin irritation or itching; rash; headache; stomach ache; diarrhea; tremors; muscle weakness; blurred vision; eye irritation; fatigue; excessive sweating; and fever.

Different types of health problems may occur with the type of exposure known as **chronic exposure**, which are multiple, often low-level, exposures over time. Some examples of chronic exposure symptoms are those connected with neurological effects such as nervousness, slowed reflexes and changes in mood such as irritability. In addition, chronic exposures to pesticides have been linked to diseases such as Parkinson's, several types of cancers and reproductive or developmental problems.

Factors influencing the health effects of pesticide drift

1. **Toxicity.** This is determined by the active ingredient and so-called "inert" ingredients, which includes the presence of other chemicals, along with other pesticides.
2. **Amount and concentration.** This includes the type of formulation (e.g., aerosol, fogger, liquid, spray, dust, bait, etc.), particle size, volatility, half-life, and other characteristics. Note: Volatility varies by chemical and is the tendency to vaporize in the air.
3. **Type and duration of exposure.** This includes swallowing (ingestion), breathing in (inhalation), skin (dermal absorption), or some combination.
4. **Who is exposed.** Some individuals are more vulnerable than others. Some of the most vulnerable include: the fetus, children, pregnant women, the elderly, the immunocompromised, and those with asthma, allergies, or chemical sensitivity.

The range of symptoms described above can be confused with having the flu, pregnancy or hangover. You should contact a doctor if you suspect you've been exposed to pesticides or if the above symptoms appear quickly.

Even after the acute response is resolved, effects such as those associated with organophosphate pesticide poisoning can continue for many years.

What to do about drift exposure

If you are exposed to pesticide drift, leave the area immediately and get others who are with you to leave as well. Seek medical attention or go to the hospital.

If you are underinsured and feel that you must weigh your decision to seek medical attention, call Poison Control at 1(800) 222-1222.

If circumstances do not allow you to remove your clothing or shower immediately after exposure, make sure you do so at the hospital after you've received medical attention.

If you are unsure as to whether or not you've been exposed to harmful pesticides, seek medical attention immediately and your healthcare provider can help make a determination. Getting treated as soon as possible is essential.

If you suspect that your clothing was hit by pesticides, remove your clothes and place them in a paper bag, then seal it inside a plastic bag. If you've been acutely poisoned, a healthcare provider may request your clothing for testing. If you mistakenly washed your clothes, your hat or shoes may still have evidence of contamination. You may want to get the clothing tested yourself.

Clean yourself thoroughly with plenty of soap and water. Wash under your nails, behind your ears and other areas that may have been exposed.

If you and/or your family have been exposed, need further medical attention after exposure or want to learn more, see the list of online resources at the end of this document.

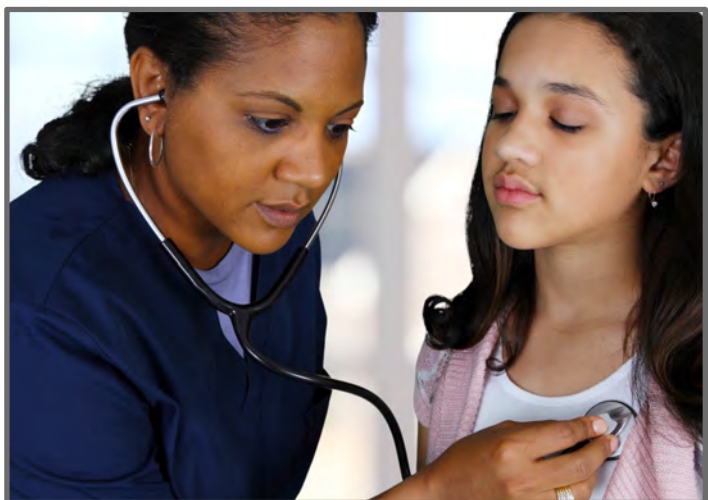
Diagnosing exposure

The doctor will need to ask you initial screening questions in order to make an accurate diagnosis — and may choose to interview you in detail to obtain an exposure history. This can include more detailed questions about possible exposure through work (occupational exposure) or at home, an environmental or occupational history, possible symptoms in addition to those you may have identified and other medical conditions you may have. They should also request: information on the pesticide you were exposed to (if you know), suggest a decontamination procedure, collect evidence (including a urine sample), order a laboratory test, consult with appropriate specialists and follow up with you, the patient. If applicable, your healthcare provider may also discuss worker's compensation with you.

Unfortunately, few medical doctors receive training in identifying and treating pesticide exposures. Because of this, you may need to advocate for yourself with your doctor. This is not easy for everyone to do when meeting with an authority figure like a doctor. Remember that the doctor has medical expertise and that you alone have expertise on your symptoms, your life, and what happened.

If you or your doctor needs the assistance of a medical toxicologist, you can locate one in your area by contacting the American College of Medical Toxicology at (844) 226-8333.

You can also access their website at www.acmt.net, or find a medical toxicologist online via www.acmt.net/cgi/page.cgi/findtoxicologist.html.



Tips for talking to your healthcare provider

- **Before your visit**, prepare by gathering some information for your doctor. If you can, collect information about what product was applied and write down the details of your exposure, such as when and where you were exposed. Include details like whether the pesticide came into direct contact with your skin, whether you inhaled it, and how long it took before you were able to clean and decontaminate yourself. These will all be useful to the doctor.
- **Ask questions**. Some of the steps a doctor would take when determining pesticide exposure are detailed above. You might consider bringing a friend or family member with you to take notes or ask further questions.
- **Ask about reporting**. Healthcare providers are required to report pesticide-related illnesses to the appropriate state agency in 30 states. Not all healthcare providers are aware of this.
- **Communicate any other concerns you might have**. This could include family history information that your doctor may not have asked you. For example, you could ask about future health effects or if there are any symptoms you should look out for.

Other preventive measures

Licensed pesticide applicators and farmworkers are required by law to receive special training to apply pesticides and on how to best protect yourself and family from exposure — other ways to potentially reduce pesticide exposure are listed below. However, it is not clear how effective these steps are in preventing exposures, as recent studies indicate that living near an application site and air infiltration into the home may be a significant route of exposure. Tips to address this include:

- Before entering your home, remove clothes worn while applying pesticides or working in or near treated fields.
- Wait until you have changed out of your work clothing before hugging or playing with your children.
- Wash your work clothing separately from the rest of your family's laundry, or launder them at your place of work if that is an option.

On reproductive health & children

Prevention is a key step for protecting your reproductive health and the health of your child. If you're considering having a child, are pregnant or are nursing, avoid exposure to pesticides whenever possible. Discuss your concerns with your healthcare provider. See the "ONLINE RESOURCES" section for additional tips and details.

The following information on protecting health from a worker safety perspective serves as a resource for farmers and farmworkers.

Worker safety on farms

When pesticides are applied, it is crucial to protect the health of workers and pesticide handlers. The EPA has a Worker Protection Standard, revised in 2015, that includes many changes with regards to worker safety and pesticides. New rules include requirements that full worker and handler trainings must be completed annually — and pesticide handlers must suspend application if a worker or other person is in the application exclusion zone (up to 100 feet around the application equipment).

In addition, if you are a farmworker, employers must provide transportation to take pesticide-exposed workers to the doctor or hospital. Employers must cover the medical costs of pesticide illness if you are exposed to pesticides at work.

Note: It is illegal to fire farmworkers for reporting pesticide drift or for seeking medical attention if exposed to pesticides.

The restricted-entry interval (REI) is the period of time that a person must wait until after a pesticide is applied to re-enter the field. It is meant to reduce exposure to pesticide residues in treated areas. Not all pesticides have REIs, and different pesticides have different REIs. If re-entry is restricted after more than 48 hours after outdoor applications, or more than 4 hours following use inside, warning signs must be posted.

Pesticide labels, and the accompanying booklet, provide important information on rules for application, health hazards, and first aid in the case of exposure. If you have been drifted on, and know what the pesticide is, you can access the label online through the manufacturer's website. If possible, take a copy of the label with you to the doctor.

You can read more about how to access pesticide labels and other relevant details information in the "OBSERVE" section of this document.

For more details on workers' compensation, see the "REPORT" section.



REPORT

Why report drift incidents?

Once you have dealt with any immediate health risks, your next step is to report the drift to the appropriate agency. Reporting drift is important for several reasons:

1. Reporting will help determine the extent of the damage. If the incident involves pesticide drift, pesticide misapplication, or an exposure at work, contact your state agency or tribal environmental department.

These agencies will help you determine the extent of the damage. Documenting damage or exposure is necessary for compensation, especially if the damage is due to a violation of the law. You will also need to document any damage or exposure.

Getting a fast response from an agency is important for taking any kind of samples, so be persistent.

If you or others were exposed to pesticides, do not wash the clothing worn at the time of the incident. Remove your clothing and save it in a paper bag, then seal that inside a plastic bag. An agency representative may take samples of the clothing that you were wearing during the incident for testing.

If you are a farmer reporting a drift incident on your crops, they will send a representative to take samples from any crops or other plants that may have been damaged. The sample analysis results will help you decide what to do with any plants that were drifted on, and whether you need to seek compensation from the applicator.

2. Reporting will support enforcement of pesticide application laws. There will be no investigation if there is no report. Sometimes chemicals are applied in compliance with the rules and they drift anyway. Some cases of drift are the result of user error, such as applicators applying during windy conditions or disobeying other guidelines. In these cases, it is up to state or tribal agencies to investigate the applicator's mistakes and determine whether a fine is appropriate. If drift incidents are not reported, there is no accountability for applicators who are not following the correct procedures.

3. Reporting drift raises public awareness of drift and is important for public policy. We hear over and over again from state agencies that pesticide drift isn't a serious problem. But we hear from farmers and other rural residents that drift is a huge problem — and a serious barrier to healthy farming and rural living. Lack of reports is interpreted as lack of a problem. If there are no reports, there is no incentive to enforce laws or improve them. If we want policies that protect health and livelihoods from pesticide drift, we have to build a case that they are needed. So think of reporting your drift incident as a contribution towards a drift-free future.

How to report

On the following page, we list contact information for the state agencies that you would contact to report pesticide drift incidents. Do not delay — report drift as soon as possible. When you reach the appropriate agency, be sure to say that you want to officially **file a drift incident report**. Ask that they send a representative to you to take your report and ask for a written confirmation of your incident report. If you are a farmer and experienced crop damage, you can also ask that the agency take samples of crops that were damaged by pesticide drift. Keep your own records: of the name of the agency representative you spoke with, dates and times of your calls, the timing of the response, and what they said the agency's response would be.

Healthcare providers & reporting requirements for pesticide-related illnesses

In addition, there are reporting requirements for healthcare providers in many states. For states or U.S. territories with no reporting requirement for healthcare providers, report the case to Poison Control Centers at 1(800) 222-1222.

States with a reporting requirement for healthcare providers

Alaska, Arizona, Arkansas, California, Florida, Hawai'i, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, Wisconsin, Wyoming

States where reporting is optional for healthcare providers

Delaware, Georgia, Idaho, Indiana, Kansas, Minnesota, Montana

****See the next pages for a list of contact details to report your pesticide drift incident.****

The contact numbers listed in the table on the next two pages, as well as environmental agency contacts, can be found online at: http://npic.orst.edu/reg/state_agencies.html#map.

If you are an organic grower or you keep bees, make sure you include these details, as well as any effects on your crops or on your bees. Drift incidents resulting in bee deaths are of concern to the EPA. Some states have specialized registries, such as Iowa's Sensitive Crop Registry, which recognizes bees and organic crops as sensitive crops, and is accessed on a voluntary basis by pesticide applicators.

The National Pesticide Information Center (NPIC) can assist you with finding information about the toxicity of the product you were exposed to during the drift event, if you have the name of the pesticide formulation or active ingredient that you were exposed to. You can call NPIC at 1(800) 858-7378 (hours: 8AM to 12PM Pacific, Monday through Friday), or access NPIC's product research database online.

Once you receive a copy of the report you have filed with your state agency, review it immediately to make sure that all the important details were adequately captured, and report any discrepancies to the agency.

State agency contact details

| State | Incident Reporting Agency | Phone # | Health Agency | Phone # |
|-------|---|--|--|--------------|
| AL | Alabama Dept. of Agriculture & Industries, Pest Management Division | 334-240-7233 | Dept. of Public Health | 800-252-1818 |
| AK | Alaska Dept. of Environmental Conservation, Pesticide Control Program | 800-478-2577 | Dept. of Health & Human Services, Division of Public Health | 907-561-6588 |
| AZ | Arizona Dept. of Agriculture, Environmental Services Division (agricultural incident) State of Arizona Office of Pest Management (structural incident) | 800-423-8876 602-255-3663 | Arizona Dept. of Health Services, Office of Environmental Health | 602-364-3118 |
| AR | Arkansas State Plant Board, Pesticide Division | 501-225-1598 | Dept. of Health, Environmental Health | 501-661-2171 |
| CA | California Environmental Protection Agency, Dept. of Pesticide Regulation | 916-324-4100 | Dept. of Public Health, Environmental Health | 916-449-5661 |
| CO | Colorado Dept. of Agriculture | 303-869-9058 | Dept. of Public Health & Environment | 303-692-3645 |
| CT | Connecticut Dept. of Energy & Environmental Protection | 860-424-3369 | Dept. of Public Health | 860-509-7740 |
| DE | Delaware Dept. of Agriculture, Pesticide Management | 302-698-4571 | Health & Social Services, Division of Public Health | 302-744-4546 |
| FL | Florida Dept. of Agriculture & Consumer Services, Agricultural Environmental Services | 850-617-7997 | Dept. of Health, Environmental Health | 850-245-4250 |
| GA | Georgia Dept. of Agriculture, Plant Industry Division | 404-656-4958 (ag) or 404-656-3641 (structural) | Dept. of Public Health, Division of Health Protection | 404-657-6534 |
| HI | Hawai'i Dept. of Agriculture, Pesticides Branch | 808-973-9406 | Dept. of Health, Environmental Health Services | 808-586-4576 |
| ID | Idaho State Dept. of Agriculture, Pesticides & Chemigation | 208-332-8613 | Dept. of Health & Welfare, Environmental Health | 208-334-6996 |
| IL | Illinois Dept. of Agriculture (agricultural) or Dept. of Public Health (structural) | 217-785-2427 (ag) or 217-782-5830 (structural) | Dept. of Public Health, Environmental Health | 217-782-5830 |
| IN | Office of Indiana State Chemist, Pesticide Section | 800-893-6637 | State Dept. of Health, Environmental Health | 317-233-7811 |
| IA | Iowa Dept. of Agriculture & L& Stewardship, Pesticide Bureau | 515-281-8591 | Dept. of Public Health, Environmental Health | 515-281-0921 |
| KS | Kansas Dept. of Agriculture, Pesticide & Fertilizer Use | 785-564-6688 | Dept. of Health & Environment | 785-291-3092 |
| KY | Kentucky Dept. of Agriculture, Division of Environmental Services | 502-573-9238 | Dept. of Public Health, Epidemiology & Health Planning | 502-564-3261 |
| LA | Louisiana Dept. of Agriculture & Forestry, Pesticide & Environmental Programs | 855-452-5323 | Dept. of Health & Hospitals, Environmental Health | 225-342-7136 |
| ME | Maine Dept. of Agricultural Conservation & Forestry, Board of Pesticides Control | 207-287-2731 | Dept. of Health & Human Services, Environmental Health | 207-287-5697 |
| MD | Maryl& Dept. of Agriculture, Pesticide Regulation Section | 410-841-5710 | Dept. of Health & Mental Hygiene | 410-764-3512 |
| MA | Massachusetts Dept. of Agricultural Resources, Pesticide Program | 617-626-1781 | Health & Human Services, Environmental Health | 617-624-5757 |
| MI | Michigan Dept. of Agriculture & Rural Development, Pesticide & Plant Pest Management Division | 800-292-3939 | Dept. of Health & Human Services, Environmental Health | 517-335-8350 |
| MN | Minnesota Dept. of Agriculture, Pesticide & Fertilizer Management Division | 651-201-6333 | Dept. of Health, Environmental Health | 651-201-4899 |
| MS | Mississippi Dept. of Agriculture & Commerce, Bureau of Plant Industry, Pesticide Program | 662-325-8789 | Dept. of Health, Environmental Health | 601-576-7690 |
| MO | Missouri Dept. of Agriculture, Plant Industries Division, Bureau of Pesticide Control | 573-751-5511 | Dept. of Health & Senior Services, Environmental Public Health | 573-751-6080 |
| MT | Montana Dept. of Agriculture, Pesticide Programs | 406-444-5400 | Dept. of Public Health & Human Services | 406-444-0273 |
| NE | Nebraska Dept. of Agriculture, Bureau of Plant Industry, Pesticide Program | 402-471-6882 | Dept. of Health & Human Services, Division of Public Health | 402-471-0928 |
| NV | Nevada Dept. of Agriculture, Plant Industry Division | 775-353-3716 | Dept. of Health & Human Services, Environmental Health | 775-687-7533 |
| NH | New Hampshire Dept. of Agriculture, Markets & Food | 603-271-3640 | Dept. of Health & Human Services, Division of Public Health | 603-271-4501 |

| | | | | |
|----|---|--|--|--------------|
| NJ | New Jersey Dept. of Environmental Protection | 609-984-6568 | Dept. of Health, Environmental Health | 800-792-8831 |
| NM | New Mexico Dept. of Agriculture, Pesticide Compliance Section | 575-646-2733 | Dept. of Health, Environmental Health | 888-878-8992 |
| NY | New York State Dept. of Environmental Conservation, Div. of Materials, Bureau of Pest Management | 518-402-8727 | Dept. of Health, Center for Environmental Health | 518 402-7511 |
| NC | North Carolina Dept. of Agriculture & Consumer Services, Structural Pest Control & Pesticide Division | 919-733-3556 | Dept. of Health & Human Services, Environmental Health Section | 919-707-5854 |
| ND | North Dakota Dept. of Agriculture, Pesticide & Fertilizer Division | 701-328-4922 | Dept. of Health, Environmental Health Section | 701-328-5150 |
| OH | Ohio Dept. of Agriculture, Pesticide & Fertilizer Regulation Section | 614-728-6987 | Dept. of Health, Environmental Health | 614-466-1390 |
| OK | Oklahoma Dept. of Agriculture, Food & Forestry | 405-522-5981 | Dept. of Health, Communicable Disease Division | 405-321-4048 |
| OR | Oregon Dept. of Agriculture, Pesticides Division | 503-986-4635 or 211 for incident reporting | Oregon Health Authority, Public Health Division | 877-290-6767 |
| PA | Pennsylvania Dept. of Agriculture, Bureau of Plant Industry | 717-772-5212 | Dept. of Health, Environmental Health | 717-547-3310 |
| RI | Rhode Island Dept. of Environmental Management, Division of Agriculture | 401-222-2781 Ext: 4504 | Dept. of Health, Environmental Health | 401-222-3424 |
| SC | Clemson University, Dept. of Pesticide Regulation | 864-646-2150 | Dept. of Health & Environmental Control, Bureau of Envir. Health Services | 803-896-0646 |
| SD | South Dakota Dept. of Agriculture, Division of Agricultural Services, Pesticide Program | 605-773-4432 | Dept. of Health, Community Health | 605-773-3361 |
| TN | Tennessee Dept. of Agriculture, Pesticides & Agricultural Inputs | 800-628-2631 | Dept. of Health, Division of Environmental Health | 615-741-7206 |
| TX | Texas Dept. of Agriculture, Pesticide Programs | 800-835-5832 | Dept. of State Health Services, Environmental & Toxicology Unit | 800-588-1248 |
| UT | Utah Dept. of Agriculture & Food, Division of Plant Industry | 801-538-4925 | Dept. of Health, Environmental Epidemiology Program | 801-538-6003 |
| VT | Vermont Agency of Agriculture, Food & Markets, Ag. Resource Management & Environmental Stewardship | 802-828-6531 | Dept. of Health, Agency of Human Services | 802-863-7200 |
| VA | Virginia Dept. of Agriculture & Consumer Services, Office of Pesticide Services | 804-371-6560 | Dept. of Health, Environmental Health Services | 804-864-7473 |
| WA | Washington State Dept. of Agriculture, Pesticide Management Division | 360-902-2040 | Dept. of Health, Community & Environment | 877-485-7316 |
| WV | West Virginia Dept. of Agriculture, Regulatory & Environmental Affairs Division | 304-558-2209 | Dept. of Health & Human Resources, Div. of Infectious Disease Epidemiology | 304-558-2971 |
| WI | Wisconsin Dept. of Agriculture, Trade & Consumer Protection | 608-224-4500 | Dept. of Health Services, Environmental Health | 608-266-1120 |
| WY | Wyoming Dept. of Agriculture | 307-777-6959 | Dept. of Health, Community Health Section | 307-777-6340 |
| DC | District of Columbia Dept. of the Environment, Toxic Substance Division | 202-535-2600 | District of Columbia Dept. of Health | 202-442-5955 |

If you live in Indian Country

According to the EPA website, the agency is responsible for implementing and enforcing the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) in Indian country. Pesticides are regulated under FIFRA in the U.S.

If a pesticide drift incident occurs on tribal lands, we recommend reporting the incident to the tribe's environmental department. Be sure to capture and report all the same information as listed in the "OBSERVE" section.

Several federal environmental laws treat federally recognized tribes similar to the way they treat state governments when implementing and managing certain environmental programs. For example, the Clean Air Act, Clean Water Act and Safe Drinking Water Act expressly provide for tribes to play essentially the same role on tribal lands as states do within state lands. This is not true, however, of FIFRA. Section 23 of FIFRA authorizes EPA to enter into "cooperative agreements" with tribes for the purpose of enforcement and training, but does not authorize tribes to develop their own programs or as the primary authority on pesticide rules within their territories, unlike some states. Unfortunately, the lack of tribal enforcement programs undermines tribal sovereignty and weakens tribal environmental protection programs.

To help you find your tribal environmental department, here are a few examples from different tribal nations:

Oneida Nation: Division of Environmental Health & Safety

- Phone: (920) 869-1600
- Email: oneidaenvironmental@oneidanation.org
- Website: www.oneida-nsn.gov/resources/environmental

Cherokee Nation: Environmental Protection Commission

- Phone: (918) 453-5005, or access forms and submit to address provided at
- Website: www.cherokee.org/OurGovernment/Commissions/EnvironmentalProtection/EnvironmentalComplaint.aspx.

Kashia Band of Pomo: Department of Environmental Planning

- Phone: (707) 591-0580
- Website: www.stewartspoint.org/wp/departments/environmental

White Earth: Department of Natural Resources

- Phone: (218) 935-2488,
- Email: Richard.Heisler@whiteearth-nsn.gov,
- Website: www.whiteearth.com/programs/index.html?page_id=261&program_id=8.html

Ecological effects or harm to pets and livestock

If your animal needs medical attention, call your local veterinarian, a local emergency clinic, or the National Animal Poison Control Center (NAPCC) at 1-888-426-4435. Be aware that NAPCC may charge a fee.

You can report pesticide incidents where pets or livestock are involved to the product's manufacturer, which is required by law to share these with the EPA. Additionally, you can contact your state or tribal agency.

To include this drift incident in federal records, your veterinarian may also choose to report pet or livestock pesticide incidents to the National Pesticide Information Center (NPIC). Your veterinarian can file a report online at www.pi.ace.orst.edu/vetrep or call NPIC at (800) 858-7378 during business hours.

NOTE: The information you submit to NPIC is not for enforcement purposes and may be shared with EPA. Therefore, your report may not remain confidential.

For an ecological incident — like impacts to pollinators, other wildlife, water or soil — follow-up investigation or enforcement can only be done through your state or tribal agency. See the numbers on pages 9 and 10, or find the appropriate number to contact your tribal environmental department.



Photo: Minnesota farmer Bill Gorman with his cattle in 2006.

OBSERVE

This section is intended to provide guidance on the information that will be most useful when reporting your drift incident to the authoritative state or tribal agency.

Keep detailed written records of drift incident(s) and related events. Make sure to identify and record the source of any information you obtain. For example, if you heard specific information from the applicator and have his/her name, then write that down.

Pictures should note the date and time the photo was taken, and a brief caption describing what is in the photograph.

These are good habits for documentation and will help you keep track of your sources, which can be useful if you come back to your notes later.

It may be helpful to think of your recording and note-taking like this: Ten generations from now, a sociologist studying pesticide drift in Iowa comes across your report and tries to piece together what happened. What would they need to know? What would you like them to know? Would they be able to depend on your report as a detailed source of information?

The following Drift Information Log Sheet will guide you through the details most useful to record when reporting to the appropriate tribal or state agency. It will also help you remember the details if you choose to share your story with advocates or policymakers.



Drift Information Log Sheet

Complete this form to ensure you have all the relevant information handy when reporting drift incidents to the appropriate state or tribal agency.

Date (MM/DD/YYYY) that you are filling out this report: ____/____/____

Observer's name: _____ City, state, zip: _____

Date and time of drift event/when drift was observed:

(MM/DD/YYYY) ____/____/____ : ____ AM or PM (circle one)

Wind direction & weather

1. What **direction** was the wind blowing *from* during the time of the incident?

2. You may note your own **observations** or, if you have access to a wind meter, you could measure the wind speed and temperature. You might also be able to access information from a local weather station that collects wind speed data.

Drift

1. If you observed the **pesticide application** while it was taking place:

- What is the distance from the site where you observed the drift incident?
_____ feet from the nearest field-edge where pesticides were applied.

Add GPS coordinates if available: _____

- What kind of application? (examples: tractor, crop duster, airblast) _____
- If known, information re: plane or sprayer registration numbers, including names of companies or co-ops. _____
- On what kind of crop(s) was the application made? _____
- If known, on how many acres was the pesticide applied? _____
- If known, what pesticide formulation was used, and at what application rate?

Drift Information Log Sheet

2. Did you get any information on the **application** from someone else, such as a farmer, neighbor, or pesticide applicator?

- If so, who? (note name if possible) _____
- What information did you find out? (type of product, timing of application, etc.) _____

If you know the pesticide formulation that was applied...

If you know which company produces the chemical, you *can obtain the manufacturer label by searching for the pesticide name and the term "label" online*. You can also find out the name of the active ingredient by reading the label. For information on the toxicity of the active ingredient or pesticide formulation, you can call NPIC at 1(800) 858-7378 (hours: 8AM to 12PM Pacific, Monday through Friday), or access NPIC's product research database online: www.npic.orst.edu/NPRO.

You can also get basic information on the toxicity of the pesticide at www.pesticideinfo.org.

Drift Damage

3. If you see **plant damage** (to crops or uncultivated areas, can occur a few days later):
- Location of the affected area, record GPS coordinates if available or cross streets.

- When did you first observe the damage?

- What kind of plants or crops were damaged, if known?

Types of plant damage (check all that apply)

- ☐ **Burn or necrosis:** This type of damage may appear on the tip, the margin, as spots on the leaf or the entire leaf surface may appear burned.
- ☐ **Chlorosis (yellowing/bleaching):** May appear as spots, tip yellowing or as a general chlorosis of the entire leaf.
- ☐ **Leaf distortion:** May appear as curling, crinkling or cupping of the leaf, with no evidence of insects causing the damage.
- ☐ **Stunting or abnormal growth:** Although any portion of the plant may be affected, the new growth is most likely to show damage when sprays are applied. When soil drenches are used, root tissue may be injured causing stunting or slow plant decline. Soil drenches can damage the foliage, but the older leaves usually show damage rather than the new growth.

Drift Information Log Sheet

4. Were any **animals/livestock** affected by the drift incident?

- What animals or livestock were impacted?

- How did you notice effects on the animals (i.e., unusual behavior)?

- Any animal deaths? _____

- Record GPS coordinates if available, or other information on location.

5. What **action(s)**, if any, did you take after the drift damage? _____

6. Have you **reported** this incident or do you plan to report it to your state or tribal environmental department? (check one)

☐ Yes

☐ No, but I commit to report on ____/____/____

☐ No, because: _____

7. Have you noticed any **odors** associated with the drift incident or pesticide application? If so, where were you located when you noticed these odors? _____

8. If crops were **damaged**, what did you do with them? _____

9. If crops were **damaged or lost**, what was your estimated financial loss? _____

Drift Information Log Sheet

Illness

1. Have you experienced any **illness** you know is linked to pesticide drift exposure? _____
If yes, what are your symptoms?

2. When did these symptoms start? _____
3. Where were you located when symptoms began? _____
4. Do you have other current health problems, and did symptoms from such problems change (worsen, improve) coinciding with the timing of the drift incident? _____

Check Yes/No or fill in the spaces below.

Are you listed on a sensitive crop registry, or a similar list in your state?

- ☐ Yes
☐ No

Are you listed on an apiary list, or a similar list in your state?

- ☐ Yes, this one: _____
*Did the applicator contact you 24 hours in advance of spraying as a courtesy, or in compliance with any other specified rule or proposed notification that you may be aware of? How did they convey that notification? _____
- ☐ No

Are any of the crops or livestock damaged intended for human consumption?

- ☐ Yes
☐ No

Drift Information Log Sheet

Additional information you may want to include with your incident report:

1. Pictures (with date and place noted).
2. A copy of a local map, or draw a map showing the area where the drift incident occurred, and the area around it. Try to show buildings, trees, and property lines. Indicate which direction is north. You can also indicate wind direction on your map.
3. Have you had previous drift incidents? If so, when? How many?
4. If you are a farmer, or an organic farmer:
 - Have you changed, or do you intend to change, your farming practices as a result of the drift incident?
 - Did you lose your organic certification?
 - Have prior incidents impacted your organic certification?

If you're willing to share your drift story with PAN, please respond to the questions below:

1. When did you first contact your agency regarding this incident? What was their response to your requests? _____
2. When did an agency representative come to your site? Was the representative responsive to your concerns? If yes, how so? If not, why? _____

3. If an agency representative came to your site, what samples did they take, and from where? How many samples? _____

4. How long did it take for the results of the sample analysis to come back to you? _____

NOTE: If you're willing to share the official results from your incident report with PAN, please email a copy to Linda Wells at linda@panna.org.

[illegible]

FOLLOW UP

Filing a lawsuit

If you have experienced harm to your health, your crops, or your property because of pesticide drift, you may choose to seek compensation from the applicator. The state or tribal agency you reported the incident to will **NOT** help you with this process. Any fines they recover from the applicator will go to the government, not to you.

If you are interested in compensation, we recommend you contact a lawyer as soon as you receive a full report back from your agency. There will be a statute of limitations on your claim, often two years, but it is best to start right away so that your lawyer has ample time to prepare your case.

Direct settlement

It is possible to seek compensation directly from the applicator's insurance company without filing a lawsuit - with or without the help of a lawyer.

If you are interested hearing one farmer's successful experience with this process, go to:

- www.practicalfarmers.org/farmer-knowledge/farminar-archive/pesticide-drift-response-and-compensation.

In the webinar, one Midwest farmer discusses the process he went through seeking compensation after losing organic crops due to drift damage.



Workers' compensation

Workers' compensation is insurance provided by employers for job-related injuries or illness suffered by employees. Workers' compensation may cover: medical expenses, rehabilitation and partial payment of lost wages. Pesticide reporting requirements and workers' compensation for farmworkers and other agricultural workers vary depending on the state. Pesticide incident reporting by health professionals is required in 30 states; see the "REPORT" section for a list of states where this is required. The worker is responsible for providing evidence of pesticide exposure. The evidence for exposure can be collected by your healthcare provider.

If you are a farmworker, employers must provide transportation to take pesticide-exposed workers to the doctor or hospital. Employers must cover the medical costs of pesticide illness if you are exposed to pesticides at work.

It is illegal to fire workers for reporting pesticide drift or for seeking medical attention if exposed to pesticides.

Many agricultural workers do not know that they may qualify for worker's compensation, and some fear that filing a claim could result in losing their job, which is a form of illegal retaliation by an employer. If the worker is from another country, additional challenges exist, such as the difficulty of following up with medical care in another country.



If you are a farmworker who was injured by drift while working, you may seek compensation for any health impacts you suffered. If a temporary foreign agricultural worker is hired under the H-2A visa program, the employers are required to provide worker's compensation to employees regardless of state laws.

Unfortunately, only 13 states require workers' compensation insurance coverage for all farmworkers, including seasonal and part time employees. Most states require coverage for full-time employees, but 16 require no coverage at all for farmworkers. To file a worker compensation claim, speak with your employer directly. If you believe you are entitled to compensation but aren't receiving help from your employer, seek out an employment attorney.

More information is available through Migrant Clinicians Network at www.migrantclinician.org or (512) 327-2017.

SHARE YOUR STORY

Pesticide drift is not a top priority for our policymakers. But your drift story can help put the issue on the public agenda. If we want policies that protect health and livelihoods from pesticide drift, we have to show why better rules are important. Here are a few ways that you can advocate for change:

- **Tell your story publicly.** Write a letter to the editor in your local community paper. Explain how pesticide drift impacted your family's health or finances, and suggest solutions. For an example, see www.panna.org/change-conversation.
- **Talk to your legislators.** Call or write your state legislators to tell them about your drift incident. Invite them to meet with you where the drift happened. Ask them to support legislative solutions to prevent pesticide drift. For a list of possible statewide reforms, see www.panna.org/hold-leaders-accountable.
- **Speak up in your community.** If you belong to a farmer organization, farmworker group or another civic organization, tell your story of drift and see if others in your community are concerned with the issue. If you are part of an organization working to address pesticide drift through policy change, contact PAN for more resources.
- **Connect with PAN.** PAN is a go-to organization for reporters and changemakers who want to hear about drift. We would love to collect your story of drift and help tell it publicly. Please send us your story by filling out www.panna.org/share-drift-story. We may be able to include your information along with other stories from those who have been affected by drift. If you choose to share your information with PAN, it will not be shared publicly without your express permission.



ONLINE RESOURCES

For more information on the components of this toolkit, visit the web resources listed below or contact Linda Wells at linda@panna.org.

Protect Your Health: More resources for you or your doctor.

- The "Recognition and Management of Pesticide Poisonings" handbook from the U.S. Environmental Protection Agency (EPA) includes information on how best to collect data, and what to share with your doctor, after a pesticide poisoning: www.epa.gov/pesticide-worker-safety/pesticide-poisoning-handbook-complete-document. Hard copies can be requested.
- For more information about reducing pesticide exposures for kids, and what pesticide health impacts can look like for children, see this environmental health toolkit from Physicians for Social Responsibility: www.psr.org/resources/pediatric-environmental-health-toolkit.html.
- "A Story of Health" is a free online book available via California's Office of Environmental Health and Hazard Assessment: oehha.ca.gov/risk-assessment/document-general-info-background/story-health-free-ebook.

Report:

- EPA information on tribal pesticide programs is available here: www.epa.gov/pesticide-advisory-committees-and-regulatory-partners/tribal-pesticide-programs.
- Several federal environmental laws authorize EPA to treat eligible Indian tribes as a state for certain programs. More information is available here: www.epa.gov/tribal/tribal-assumption-federal-laws-treatment-state-tas.
- U.S. pesticide rules are mandated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA): elr.info/sites/default/files/docs/statutes/full/fifra.pdf.
- Information on farmworker protections in the revised Worker Protection Standards available at: www.epa.gov/pesticide-worker-safety/revisions-worker-protection-standard.

Observe

- Practical Farmers of Iowa (PFI) has compiled a list of private labs that will test for pesticide residues: www.practicalfarmers.org/app/uploads/2016/04/Labs92315.pdf.

Follow up

- PFI's Farminar series includes this webinar on an Iowa farmer's experience in getting compensation for pesticide drift damage: www.practicalfarmers.org/farmer-knowledge/farminar-archive/pesticide-drift-response-and-compensation.
- If you are a farmworker and are looking for more details about workers compensation information, the Migrant Clinician Network has provided this resource: www.migrantclinician.org/workerscomp.

Share your story

- Share your drift story with PAN by sending an email to Linda Wells at linda@panna.org or filling out the form on this page: www.panna.org/share-drift-story.
- If you would like to download and share this toolkit, it's available online at www.panna.org/in-case-pesticide-drift.
- For tips and tools on sharing your story with legislators, visit www.panna.org/hold-leaders-accountable.