

A LITTLE BIT OF POISON... WILL IT KILL YOU?

second edition 2019



MIGRANT CLINICIANS NETWORK



Community Education Manual for
Community Health Workers
about Pesticides and Other
Environmental Hazards

A LITTLE BIT OF POISON...WILL IT KILL YOU?

A Community Education Manual for Community Health Workers about Pesticides and Other Environmental Hazards



This manual is a guide for community health workers to assist them with community-based education activities. The manual offers information about health risks from exposure to pesticides and other environmental hazards and ways to lessen these risks. It also includes useful information and tips to successfully work in the community.

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TALKING ABOUT PESTICIDES IN THE COMMUNITY

What is a community health worker?

A community health worker is a person who likes to learn in order to help others learn so together they may improve their health, their family's health and the health of their community. A community health worker is a community educator and often has the following characteristics:

- ✓ Lives or belongs to the community where he or she works.
- ✓ Knows the neighborhood or community.
- ✓ Identifies with the people or neighbors in the community.
- ✓ Knows the services available in the community.
- ✓ Is honest.
- ✓ Has a strong commitment to the wellbeing of the community.



- ✓ Looks out for the community's wellbeing.
- ✓ Wants to learn in order to help others learn and improve conditions in the community.
- ✓ Knows how to listen and talk objectively.
- ✓ Is kind and humble.
- ✓ Recognizes families' concerns.
- ✓ Admits when he or she does not know or does not have the information.

Being a community health worker does not mean that you must know everything or be an "expert". What is important is the desire to learn and to share the knowledge with others to improve the quality of life of people in the community.

Community health workers do not need formal schooling or education nor do they need a high school diploma or college degree. Community health workers must simply be willing to learn and to share that knowledge.

How do I build trust with people I am working with?

It is important that the family or the person with whom you are speaking trusts you. (From now on we will use the term **family** to make it easier.) Building trust is not simple. Sometimes it takes more time and effort than you think. Here are some tips to help you build trust:

- ✓ Listen carefully and choose the best way to share information and knowledge with the family.
- ✓ Clear up any misunderstandings and myths in a respectful way.
- ✓ Introduce yourself as a person who wants to learn and share with the community, not as a person who knows everything and has only come to teach or inform.
- ✓ Be open and honest about the reason for your visit and how the family and the entire community will benefit.
- ✓ Avoid singling out the family or household you are speaking with. It is more helpful to talk about the community in general.
- ✓ Acknowledge the concerns about other families or the community, but do not join in any criticisms.



When a family can see that you share genuine concern or that you understand, they will feel more comfortable sharing their own behaviors and problems.

How do I get started in the community?

Once you have established trust, you may begin to share knowledge about pesticides using **active communication**. This means that you must listen carefully and choose the best way to work with the family. Give them enough time to make them feel comfortable. Be thoughtful and respond to their questions even if they ask about topics other than pesticides.



Your first contact with the family sets the stage for your future relationship with them. Here are some important steps to start your relationship off on the right foot:

- ✓ Introduce yourself—give your name, a brief explanation of your organization and where you come from.
- ✓ Clearly explain the reason for your visit
- ✓ Enter the home only if you are invited.
- ✓ Talk about things you have in common like children, school, church or neighborhood.
- ✓ Wait until the family feels comfortable to start giving them information.
- ✓ Use simple words and explain terms as needed.
- ✓ Take your time; there is no need to rush. Take enough time so that the family feels comfortable with you.
- ✓ Ask if this is a good time talk. Offer another time to visit if the family or person can't talk to you.
- ✓ Avoid talking too long about personal things and/or complaints.

There may be times when the family may be ashamed or embarrassed about the conditions in which they live. Try to ease the situation. Here are some tips or things to say to help:

- ✓ I did not come here to tell you what to do or to judge you.
- ✓ I did not come here to pick on you and your family.

- ✓ I know that you were not expecting a visitor.
- ✓ I don't know how you keep up with all of the responsibilities you have.
- ✓ I don't know how you do it. The chores never end. And with kids...



Your work in the community may involve talking to all types of people in all sorts of settings. You may be talking to them at different places— their home, a community center or their place of work. Sometimes you will talk with an entire family. Sometimes you will only talk to the mother or caretaker. And other times you may talk only to single men. Our advice applies to a number of different settings in which you may be talking to individuals, families or groups. Be sure to adapt our suggestions to your situation.



The key to being a successful community health worker is understanding the beliefs, habits and knowledge of a family and not judging them. This will help you talk about any topic. Make an effort to understand a family's way of

thinking, their values and their way of doing things. This will allow you to more easily suggest new alternatives. Or to praise and encourage them to continue with their current practices, and to share their experiences with other families.



How do I protect myself when working in the community?

Your safety is very important.

- ✓ If any situation makes you feel worried about your safety, stop immediately and come back another time.
- ✓ It is a good idea to work in pairs. Working in pairs is safer, especially if you are not familiar with a particular neighborhood. Working in pairs will also allow you to share responsibility. The information you share with the family may be more complete since there are two people paying attention to the needs and concerns of the family.
- ✓ If there are both male and female promoters in your program, it is a good idea for the pair to have one male and one female community health worker. In some cases this may make conversations easier.
- ✓ Avoid working at night. But if you have to, make sure you arrange the visit ahead of time.
- ✓ Make sure you know where you are going and have told another member of your organization your plans.
- ✓ Avoid getting lost by double checking the directions ahead of time.
- ✓ Once with the family, be aware of the exits in case of an emergency. If you have a vehicle, park it where it is easy to get to.
- ✓ Be careful around dogs, cats, other pets, chickens and loose animals in the community. Not all of them are friendly. If a dog or other animal threatens you when you approach the house, come back at another time or simply keep your distance until a family member responds to the animal.



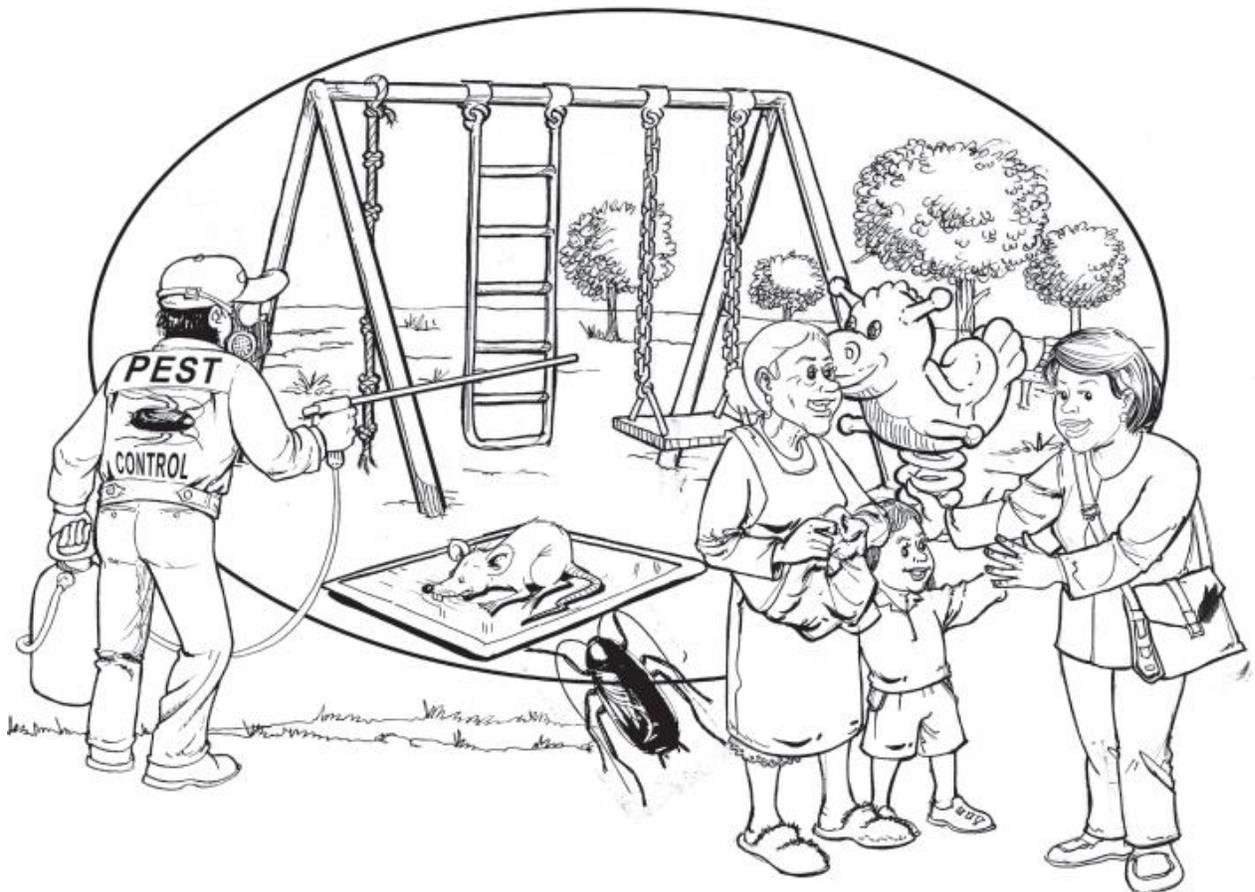
REMEMBER YOUR SAFETY IS IMPORTANT!



How do I start talking about pesticides?

Talking about pesticides, particularly those used in the home, often involves discussing various bugs, mice and other pests. Talking about these pests may involve a discussion about household cleanliness. This might be difficult for a family to discuss as they may feel badly when they realize some of their practices may be harmful or that they have done things the "wrong" way.

You have already started to gain the family's trust since you have been actively listening and observing. This gives you a sense of the family's habits and ways of thinking. All of this will help you figure out how to start talking with the family about pesticides.



As community health workers, it's important to look for and use common terms. Not everyone will use the term pesticide. Instead, they will call it bug spray, rat poison, roach killer, weed killer, poison, etc. Clarify that "pesticide" is any chemical used in the community to kill eradicate or keep away pests.





Some ways to get started are:

- ✓ Ask the family to share their concerns about pests and pesticides or to see if they have any issues they want to discuss.
- ✓ Talk about pests in general and how they get into our homes and the community.
- ✓ Share concerns about pesticides used at work.
- ✓ Mention that pests, as well as some of the pesticides used, may be harmful and that you would like to share ideas with them to help prevent having to use pesticides. Or if they have to use pesticides, there may be safer ways to use them.
- ✓ Talk about pesticides used on the lawn or in the garden. This may help put the person at ease as it has little to do with household cleaning practices.

PESTICIDES

What are pesticides?

Pesticides are chemicals used to control or kill “pests”—insects, rodents and weeds and even germs. While pesticides may help control unwanted pests, they can also be harmful to plants, animals and people.

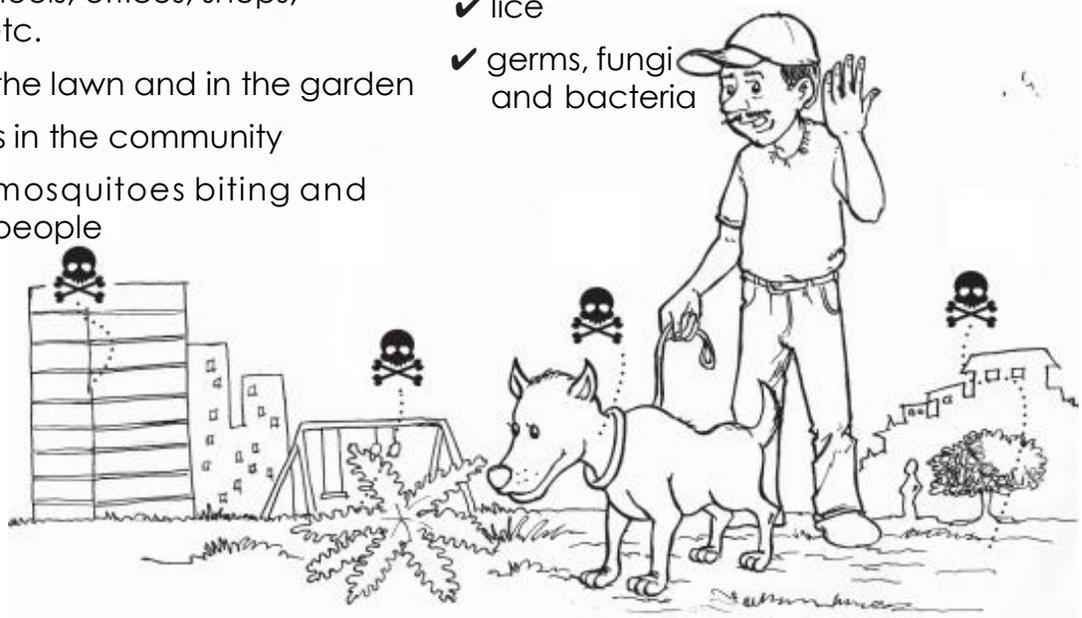
Ask the family how they deal with unwanted flies or mosquitoes or ants. If they mention some kind of pesticide, use that as an opening to the conversation. For example, if the family mentions that they spray for ants, take advantage of the situation and explain what pesticides are and how they are used.



How are pesticides used?

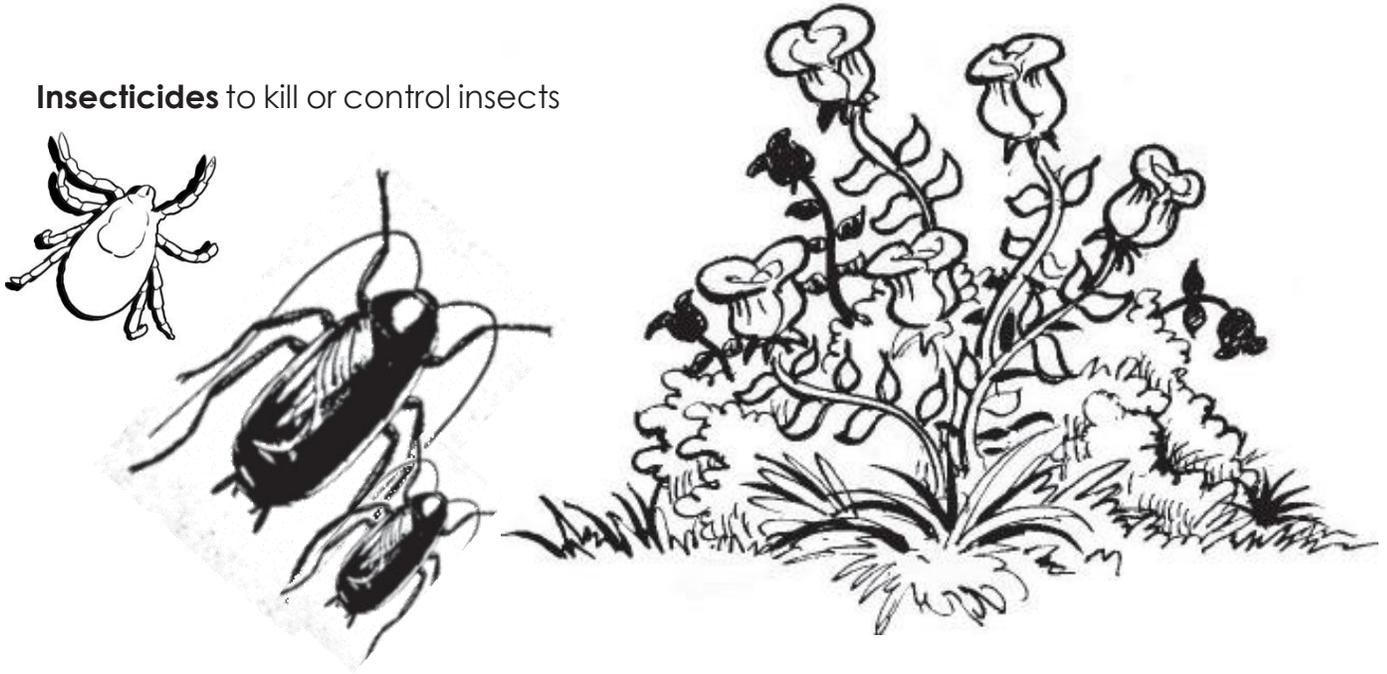
Most pesticides are used in agriculture, but pesticides are also used at home and in the community to kill or get rid of:

- ✓ bugs, mice and rats in and around houses, schools, offices, shops, factories, etc.
- ✓ fleas and ticks on pets
- ✓ weeds on the lawn and in the garden
- ✓ lice
- ✓ mosquitoes in the community
- ✓ germs, fungi and bacteria
- ✓ ticks and mosquitoes biting and bothering people



Different types of pesticides have a specific name depending on the pests they control:

Insecticides to kill or control insects



Herbicides to control weeds

Rodenticides to control rats, mice and other rodents



Antimicrobials to kill microorganisms like bacteria and viruses

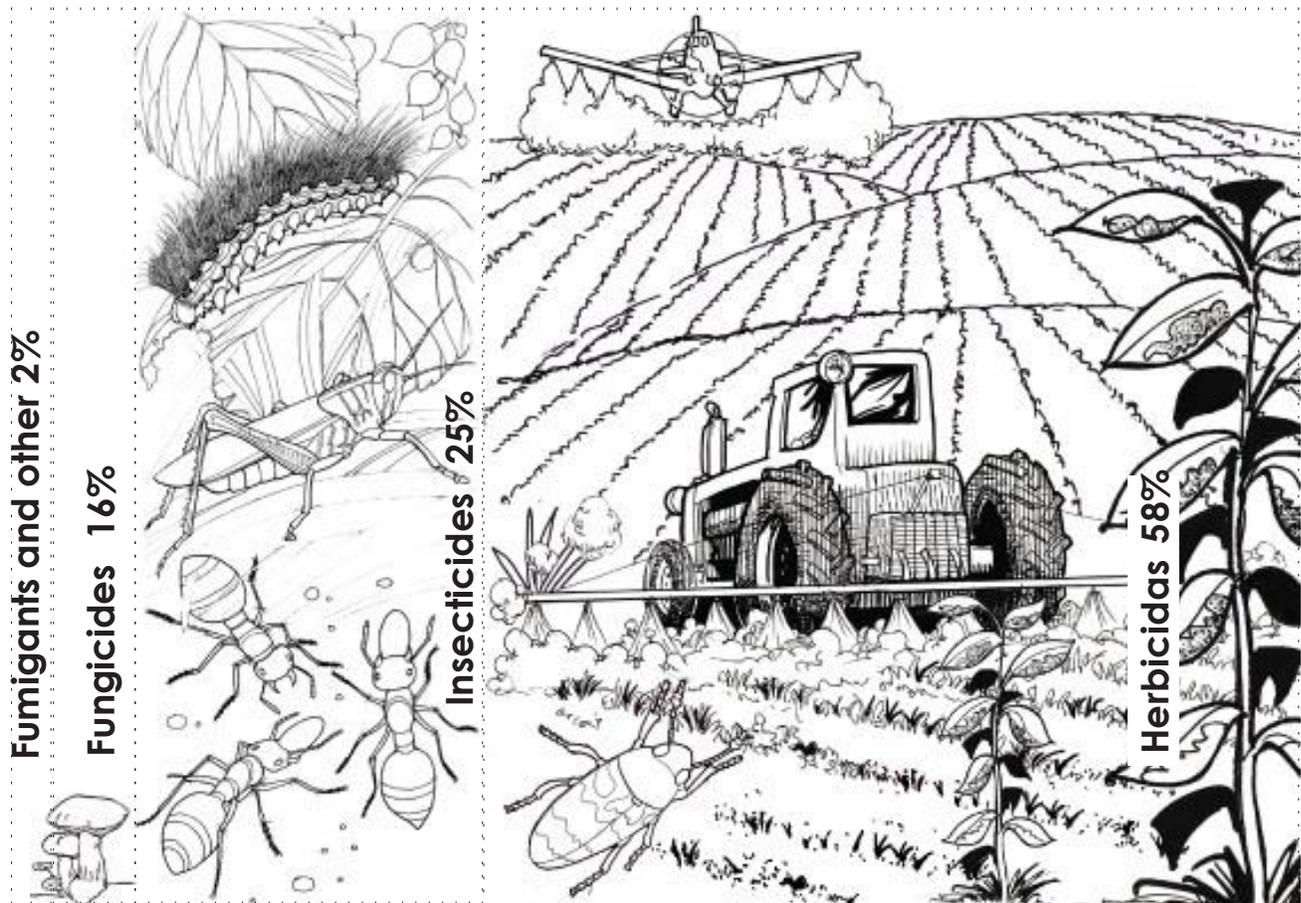


Fungicides to control plant disease



Types of pesticides used in the United States

This chart shows us the different types of pesticides used in the United States.



Source: EPA 2017

Pesticide Ingredients

There are two components in pesticides: the **active ingredient** and the inactive or **inert ingredient**.

The **active ingredient** is the part of a pesticide that kills or controls the target pest.

Inert or inactive ingredients are added to the pesticide to act as a carrier of the

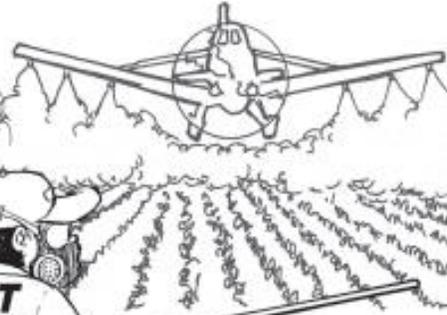
pesticide or to improve the way the active ingredient works. Inert ingredients make applying the pesticide easier and more efficient. Water, kerosene, detergents, and chlorinated solvents are commonly used inert ingredients. Typically, the specific inert ingredients are unknown to the general public because they are known as business trade secrets.

Pesticides come in many different forms and are applied in different ways:

Sprayed from a truck or a tractor



Sprayed from an airplane



Applied with a back pack or spray bottle



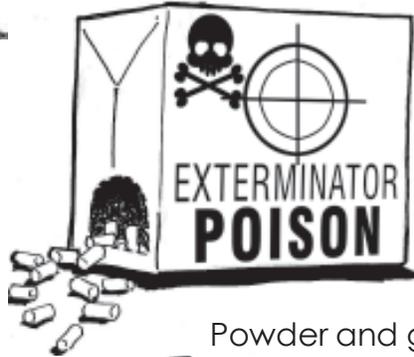
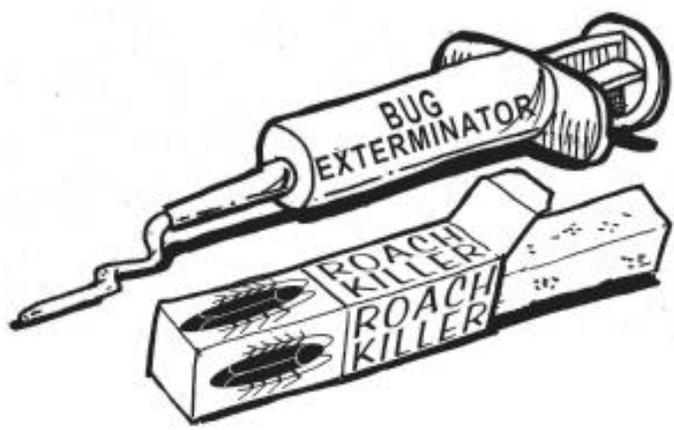
Mixed with irrigation water



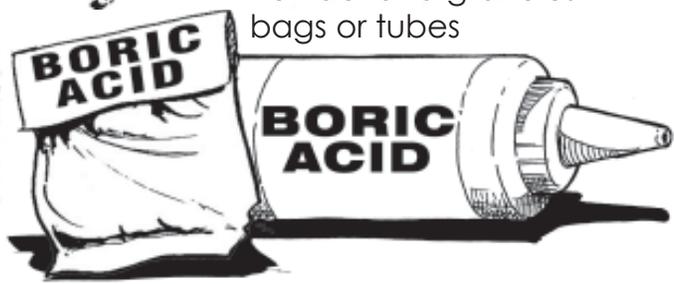
Sticky paper and glue traps

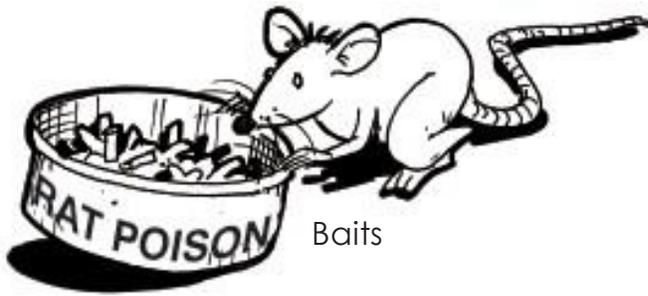


Gel, chalk and pellet form



Powder and granules in bags or tubes





Baits

Seeds



Shampoos and soaps



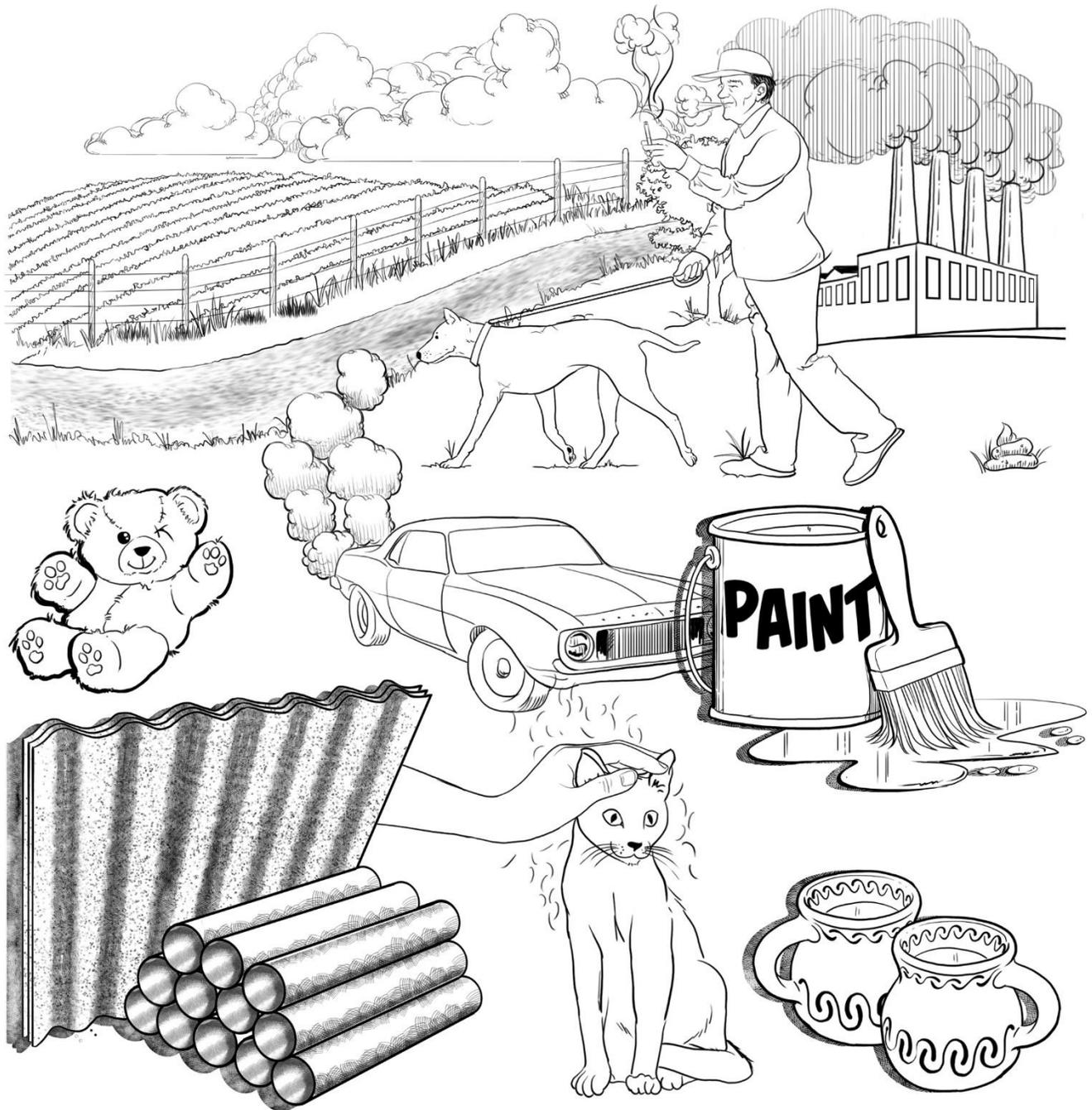
Insect repellents



Many times migrant farmworkers and those of us living along the border are from rural, agricultural communities. Many of us have a lot of experience with pesticides in our home communities. You can learn from the family about their knowledge of pesticides if you ask where the family is from and ask if they have used pesticides or what types of methods were used to control or kill pests.

How are we exposed to pesticides and other chemicals?

We can be exposed to pesticides or other chemicals through the air that we breath or water that we drink. You can also be exposed to chemicals through materials that contain asbestos or lead, including paints, some ceramics, and certain construction materials.



There are many ways that people are exposed to or come in contact with pesticides everyday.



Drift from a nearby field that has just been or is being sprayed.



Drift from pesticides being sprayed in the community.



Playing, working or just being in areas that have just been sprayed such as homes, schools, offices, stores, factories, fields, lawns and gardens.

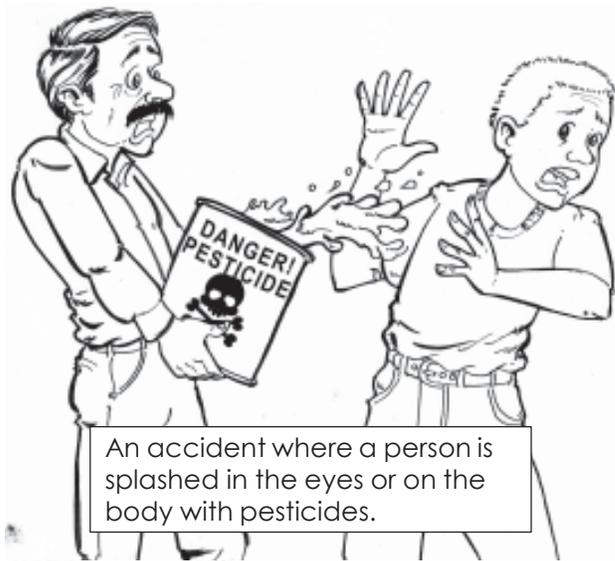
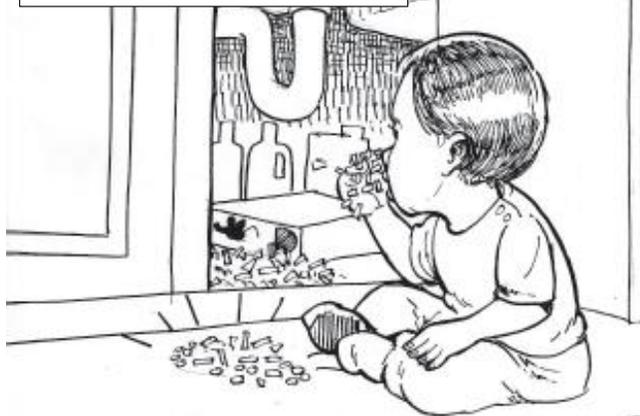


Drinking water contaminated with pesticides.

You can ask families if they have ever heard of anyone getting sick or poisoned by pesticides or chemicals. You can ask where this happened and continue the conversation from there. Examples may be:



An accident where a person mistakenly eats or drinks a pesticide.



An accident where a person is splashed in the eyes or on the body with pesticides.

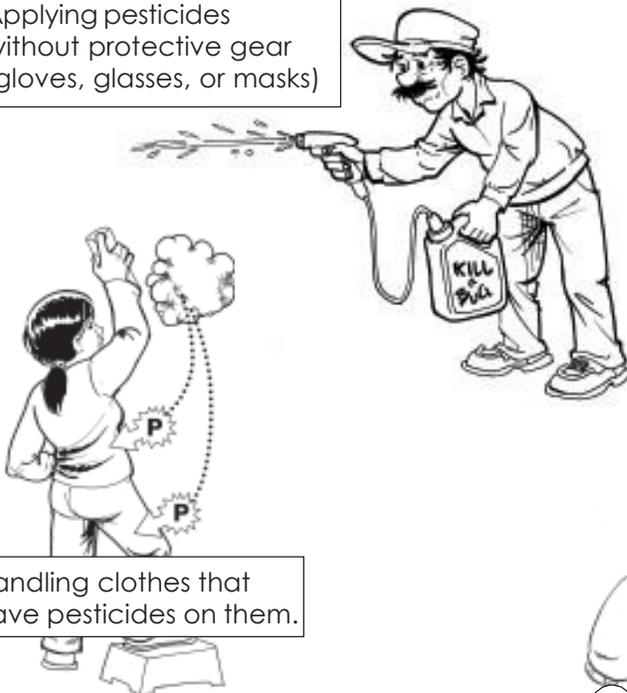


Eating fruits and vegetables with pesticides on them.



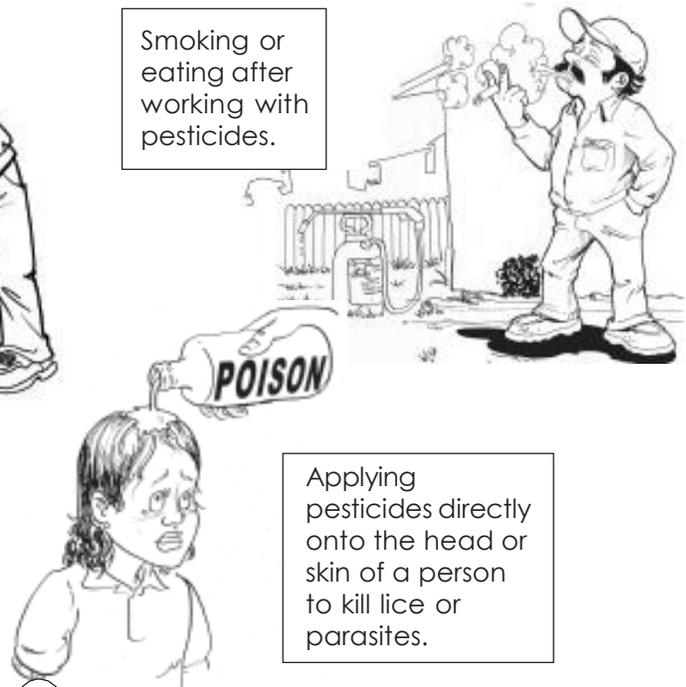
Touching things that have pesticides on them (the floor, ground, toys, clothing, plants) and then putting hands in the mouth.

Applying pesticides without protective gear (gloves, glasses, or masks)



Handling clothes that have pesticides on them.

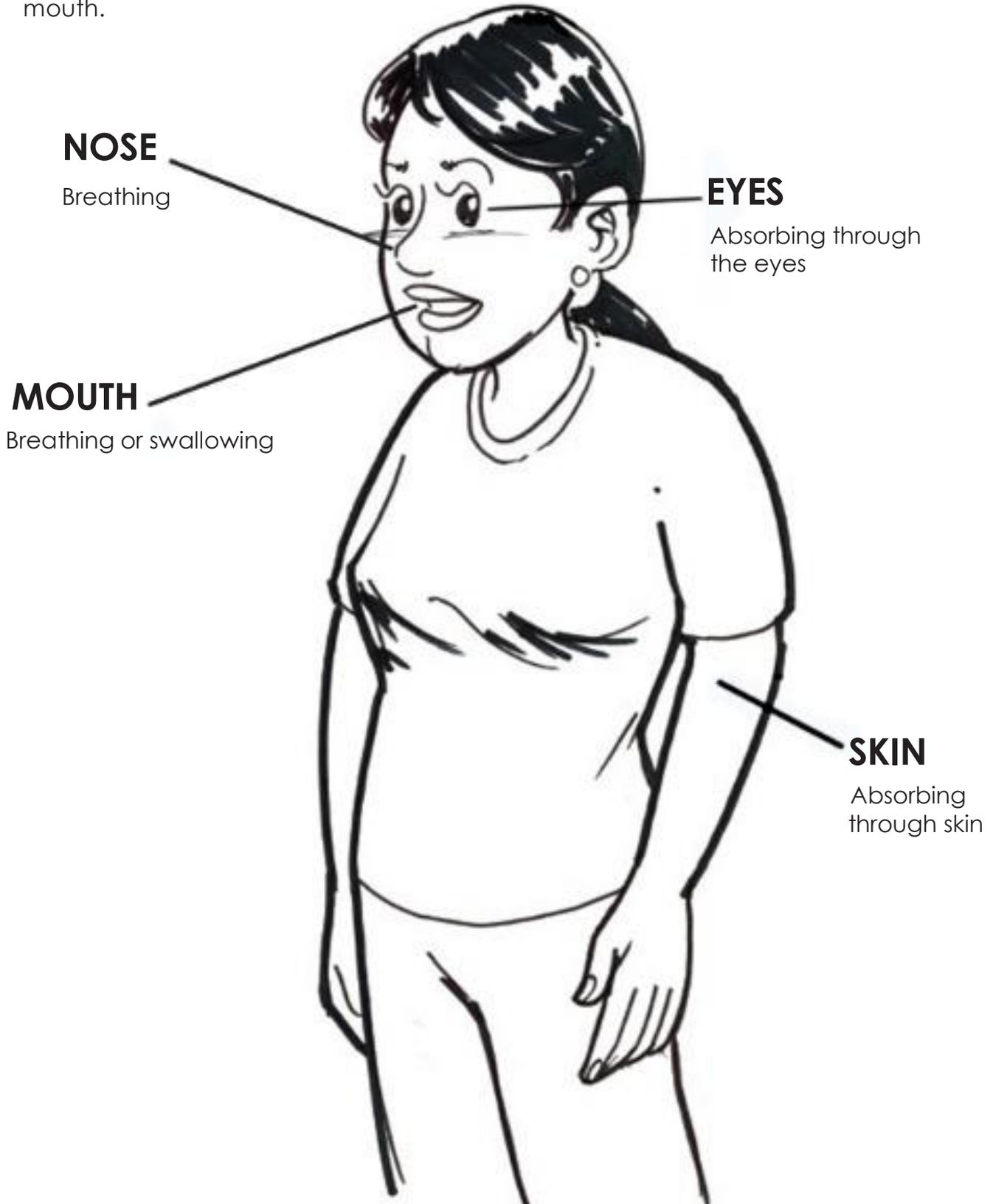
Smoking or eating after working with pesticides.



Applying pesticides directly onto the head or skin of a person to kill lice or parasites.

How do pesticides enter our bodies?

There are three “routes of entry” or ways to be exposed to pesticides: skin, nose and mouth.



PESTICIDES AND HEALTH

Are pesticides dangerous to our health?

Yes. But it depends on the amount of pesticides, the length of exposure, the type of exposure, the type of pesticide and other factors like age, sex, etc.

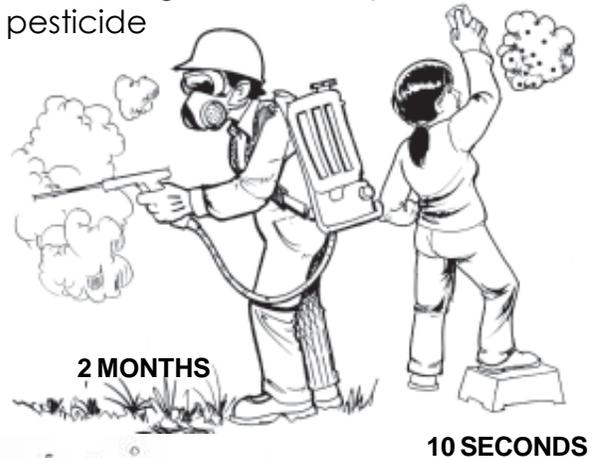
1. The “dose-time” relationship

The damage depends on the dose or the amount of pesticide a person has been exposed to and the time or duration of this exposure.

Dose—amount of the pesticide



Time—length of time exposed to the pesticide



For example, think how a person would feel if he drinks one beer in an hour. Now, think how a person would feel if he drinks three beers in an hour.

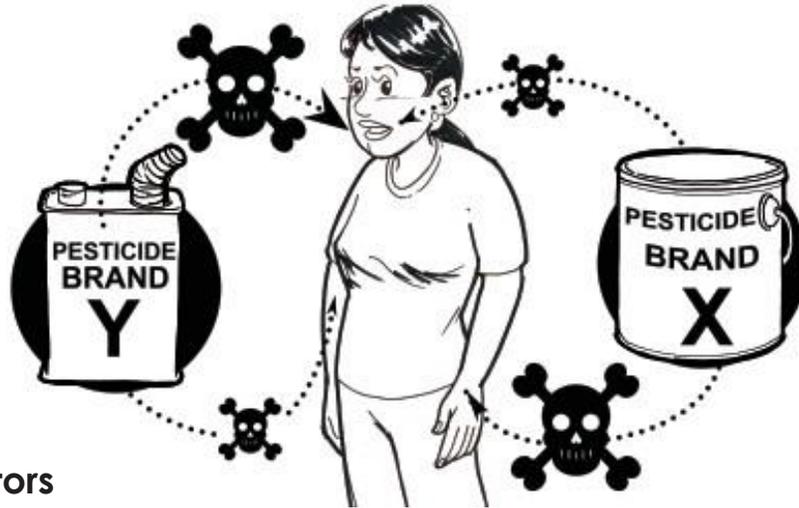
Drinking three beers in an hour will likely make a person feel dizzy and less coordinated. Drinking three beers over the course of a day would not have the same effect as drinking three beers in an

hour. This is what we mean by the dose-time relationship.

In this example, three beers is the *dose* and the period in which the person drank three beers is the *time*. The dose is just as important as the *time*. If a person drinks three beers in an hour the effect will be very different from three beers over the course of a day.

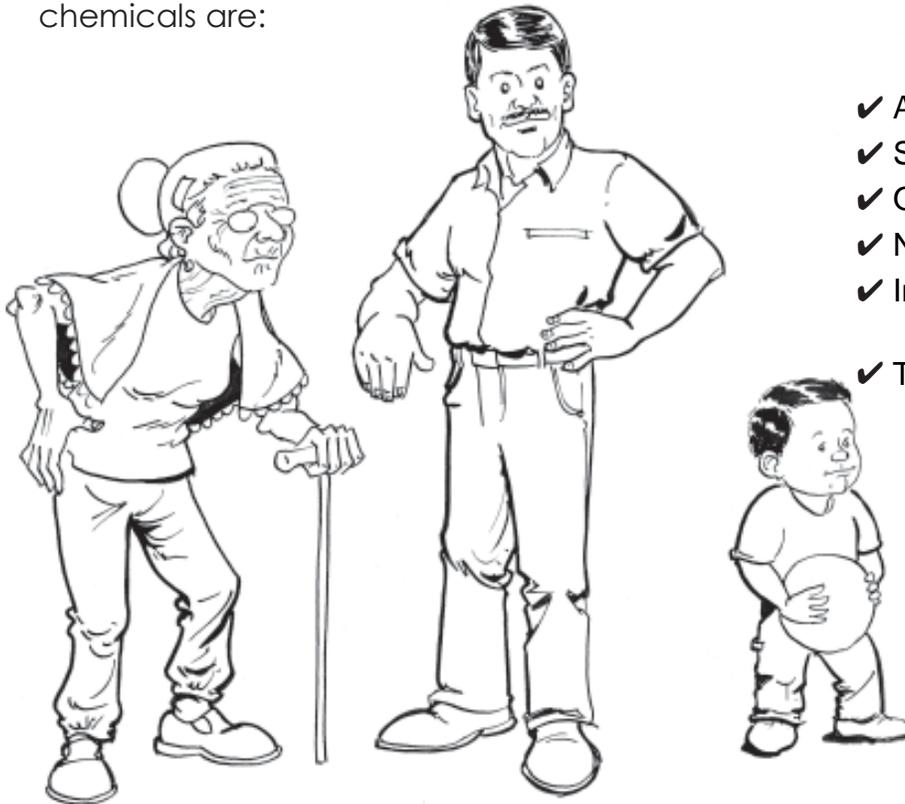
2. Routes of Exposure

The health effect also depends on the route of exposure or how chemicals get into the body. Some chemicals can be more harmful if they are swallowed or inhaled than if they are absorbed through the skin.



3. Other Factors

There are other factors that determine the damage caused by pesticides or other chemicals are:



- ✓ Age
- ✓ Size
- ✓ Overall health status
- ✓ Nutrition
- ✓ Interaction of other chemicals
- ✓ Tolerance

4. Type of Pesticide

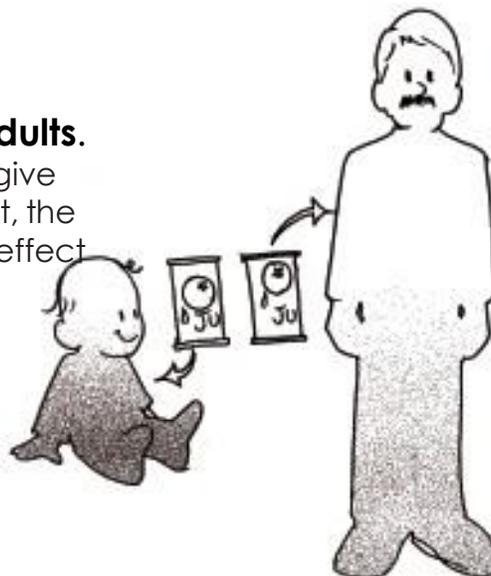
How a pesticide will affect our health depends on the type of pesticide and its **toxicity**. **Toxicity** is a substance's ability to cause injury. Not all pesticides are the same and some are less toxic than others.

Who is most vulnerable?

Pesticides cause more harm to children, elderly people and pregnant women. Children are the most vulnerable because...

Children are smaller and weigh less than adults.

Children are not small adults. Just as you would not give the same amount of medicine to a child as an adult, the same dose of a pesticide will have a very different effect on a child and on an adult.



Children explore the world with their hands and mouths.

Little ones learn about the world by touching and putting things in their mouths. They are more easily exposed this way.



Children are closer to the ground.

Pesticides settle on the ground and floors and the dust that is on the floor. When children crawl or play on the floor or ground they are closer to pesticide residue. Their crawling also stirs up the contaminated dust which they can breathe in.

Ask if exposure to a pesticide or chemical would have the same effect on a child as it would on the child's mother. Expand on their answer to explain the reasons why children are more vulnerable.



Children are still developing.

Before birth and throughout childhood, the body systems, like the nervous system (brains and nerves) and the circulatory system (heart, arteries, veins), are still growing in children. Exposure to pesticides when still developing may be more harmful and cause permanent damage.



Children's bodies function differently.

Pound for pound, children breathe more air, and eat and drink more than adults.

Children breathe more air and breathe faster than adults. Because of this, more toxins can get into their bodies.

Children do not process toxins as quickly as adults. The toxins stay in their systems longer. The kidneys and liver of adults help get rid of waste or poison, but in kids the kidneys and liver are not able to get rid of toxins.

Children's bodies are still developing. In adults, the liver and kidney get rid of toxins from the body. This process is different for kids because their organs are still developing.

How much can pesticides hurt us?

Pesticide poisoning can cause harm right away (acute) or after a long time (chronic). Acute symptoms appear right away. On the other hand, Chronic effects from exposure can occur after a long period of time.

Sometimes the symptoms or illness do not show for hours, days or even years.

Many people may be exposed to pesticides and not even know it!

Acute symptoms of pesticide poisoning

Nose and Mouth: runny nose, drooling.

Chest and Lungs: pain, breathing problems.

Stomach: pain, diarrhea, nausea and vomiting.

Legs and Arms: muscle cramps or pains, twitching, trouble walking.

Skin: itching, rashes, bumps, redness, blisters, burning, sweating too much.

Head and Eyes: headaches, vision problems, small pupils.

Hands: damage to fingernails, rashes, numbness and tingling in fingers.

Other general signs: confusion, weakness, trouble concentrating, muscle twitching, restlessness and anxiety, bad dreams and trouble sleeping.

If you have any of these problems while working with pesticides, leave the worksite immediately. Do not wait until you feel worse. **Get away from the pesticides and go to a hospital or clinic right away.**

Symptoms and signs of acute poisoning in children are similar to those of adults, but they also include exhaustion, convulsions, trembling, and memory loss.



A severe poisoning can kill. Other severe symptoms include unconsciousness, loss of control over bladder and bowels (peeing and pooping without control), blue lips and fingernails, and shaking.



Long-term or Chronic Effects

Some people are exposed to low levels of pesticides over long periods of time. These health problems can be severe and irreversible.

Some of the long-term effects of pesticide exposure include:

- ✓ Cancer: Some pesticides and pesticide ingredients can cause cancers such as leukemia and brain cancer.
- ✓ Nervousness, anxiety, memory loss, mood changes, trouble concentrating and learning difficulties.
- ✓ Weakness in the arms and legs.
- ✓ Damage to the lungs: Asthma attacks, respiratory illnesses and sensitivities.
- ✓ Damage to the immune system: This makes it easier to get infections and allergies and recover from illnesses.

Reproductive Health Effects

Women may be unable to get pregnant and men may become sterile.

Pesticides exposure may increase the possibility of birth defects, miscarriages or stillbirths.

What do we do if someone has been poisoned?

- ✓ Call 911
- ✓ Take the person immediately to a clinic or hospital.

It is important to tell the doctor, paramedic, or nurse the pesticides you think caused the poisoning. If possible, you should also tell them the following:

- ✓ Location of the poisoned individual.
- ✓ Age, weight and symptoms of the person poisoned.
- ✓ Name of the product. If you can, bring the container or label so that the health provider may read it.
- ✓ Registration number from the EPA in the US or just the registration number from the label in Mexico.
- ✓ Time and duration of exposure and when the symptoms began.
- ✓ How the exposure happened.
- ✓ Amount swallowed, inhaled or exposed to the skin.
- ✓ If other people were exposed and if they are experiencing similar problems and symptoms.

IMPORTANT NUMBERS AND RESOURCES:

- ✓ Call 9-1-1 in case of an emergency
- ✓ Poison Control Center 111-800-222-1222
- ✓ National Pesticide Information Center: 800-858-7378 or visit their website at npic.orst.edu



WRITE OTHER IMPORTANT NUMBERS:

Ask if they know where to go in case of a poisoning or an emergency. If they do not know a place, offer the names, addresses and phone numbers. Prepare the necessary information in advance.



PESTICIDES IN AND AROUND THE HOME

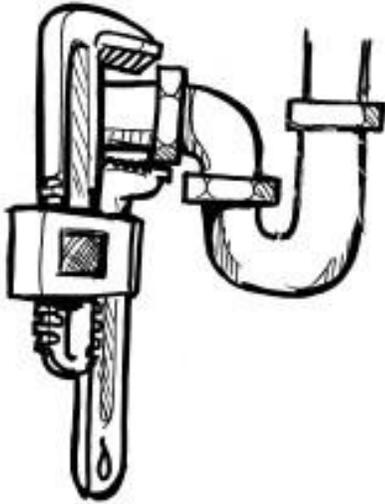
How do we prevent pests from coming into our homes?

One of the best ways to protect ourselves from pesticides used in and around the home is to **not to use them!** Here are some steps you can take to prevent pests from entering the house:

1. Starve them out!

Pests need food to survive. If you take their food away, they may decide to go elsewhere.

- ✓ Put all food away and try to keep it in sealed containers.
- ✓ Clean up food and water spills.
- ✓ Cover the trashcan with a lid.
- ✓ Try not to leave pet food out overnight.



2. Dry them out!

Insects, mice, rats and lots of other pests cannot survive without water.

- ✓ Fix leaky pipes and faucets.
- ✓ Empty pet water bowls.

3. Keep them out!

- ✓ Put screens on windows.
- ✓ Repair holes or cracks in windows, doors or screens.
- ✓ Patch holes or cracks.
- ✓ Put screens on pipes or vents.



What are the safest ways to get rid of pests?

Here are some simple tips to control pests

Cockroaches

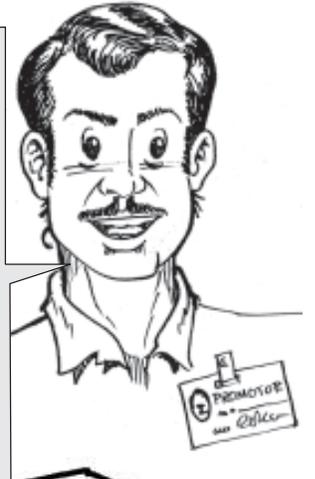
1. Find them
2. Deny them shelter, food and water
3. Kill them

1. Find them

- ✓ Look for evidence of dead cockroaches like egg cases or feces (small dark brown pellets).
- ✓ Place sticky traps in areas where you suspect cockroaches are living (under sinks, behind refrigerators, stoves or cabinets).
- ✓ Place the traps against the wall because roaches like to stay along the edges of floors.
- ✓ Check on the traps each week and empty them when they are full.



You can ask the family about remedies their parents or grandparents once used to get rid of pests and how they differ from the new methods now used. Using the family's response, you can offer safer, less toxic or alternative methods for controlling pests.



2. Deny them shelter, food and water

Shelter

Cockroaches live in small tight places and prefer to live on porous surfaces like wood, paper, cardboard, insulation and cloth. Focus your efforts on areas where you caught the largest number of roaches in the sticky traps.

Deny them shelter by organizing storage areas and cleaning all surfaces (removing clutter). Also,

- ✓ Seal all cracks and crevices with silicone caulk.
- ✓ Put screens over vents and pipes that open to the outside.
- ✓ Seal spaces around corners and pipes.

Food

- ✓ Seal up boxes and bags of food.
- ✓ Don't leave pet food and water bowls out overnight.
- ✓ Clean dirty dishes and food crumbs right away.
- ✓ Keep a tight lid on the trash can and avoid keeping it inside.

Water

- ✓ Drain dishwater from the sink.
- ✓ Fix leaky faucets and plumbing.
- ✓ Empty excess water in flower pots and plant stands.
- ✓ Insulate cold water pipes to prevent condensation.

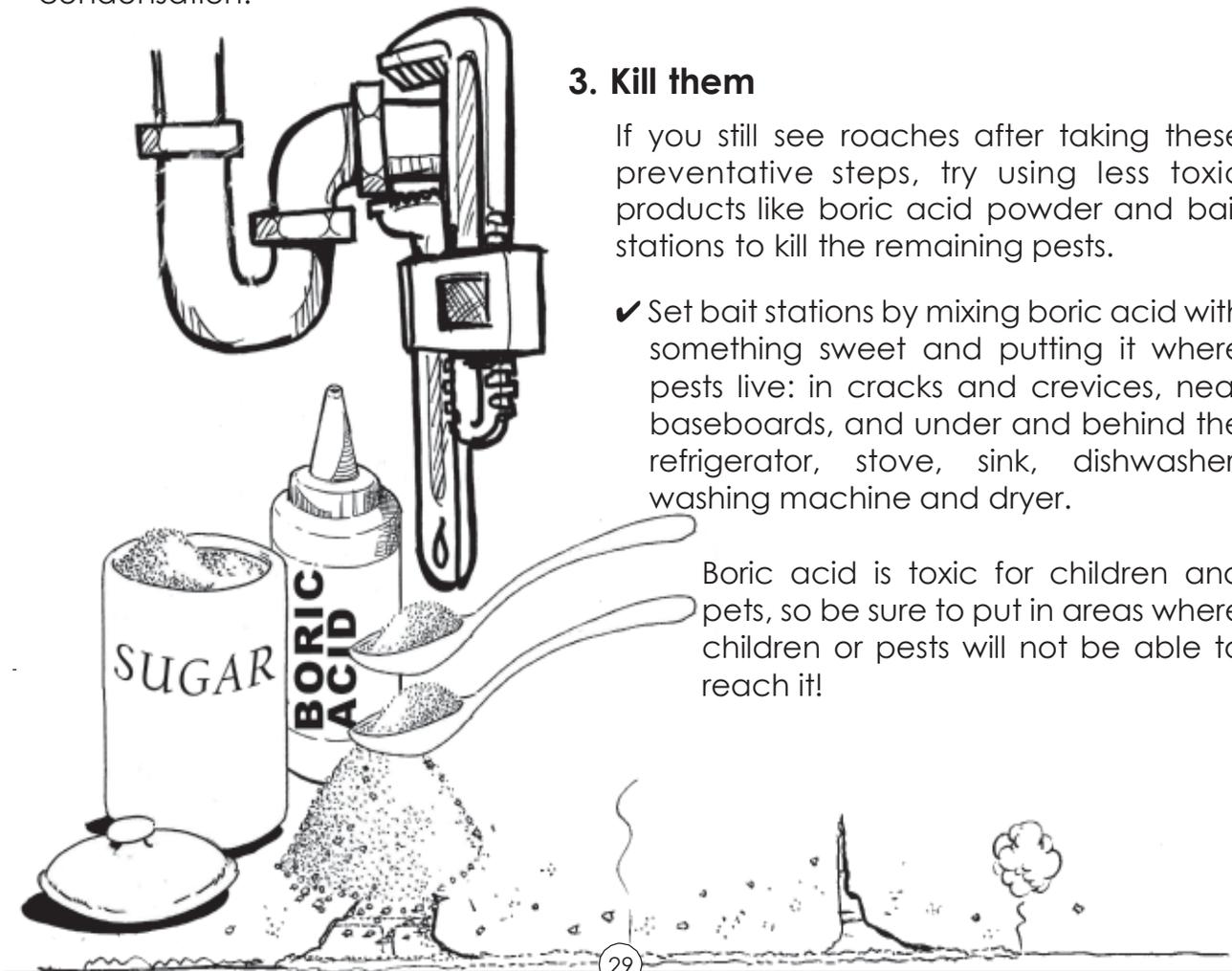


3. Kill them

If you still see roaches after taking these preventative steps, try using less toxic products like boric acid powder and bait stations to kill the remaining pests.

- ✓ Set bait stations by mixing boric acid with something sweet and putting it where pests live: in cracks and crevices, near baseboards, and under and behind the refrigerator, stove, sink, dishwasher, washing machine and dryer.

Boric acid is toxic for children and pets, so be sure to put in areas where children or pests will not be able to reach it!



Ants

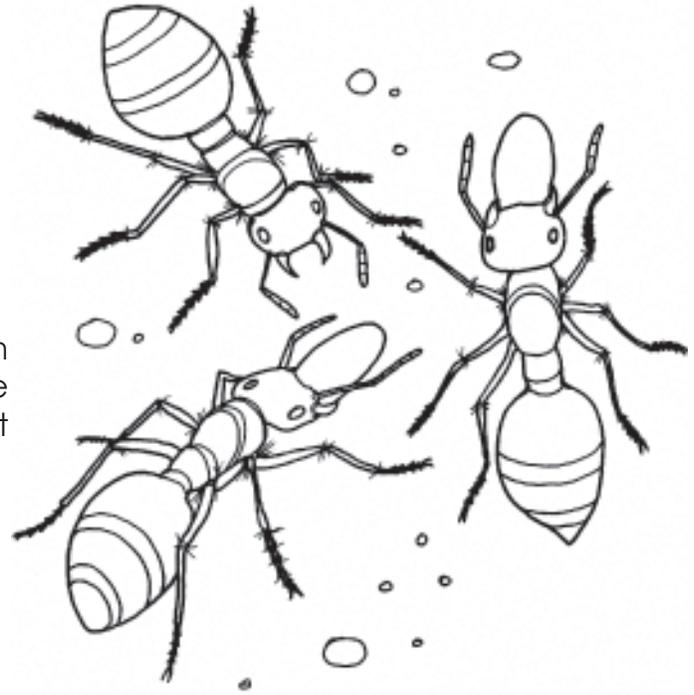
To get rid of ants in your home:

1. Find their point of entry and seal it.
2. Destroy the nest.

1. Find their point of entry

Follow the trail of ants until you find where they are entering your home.

- ✓ Prevent their entry with fresh lemon juice and peel, chalk, damp coffee grounds, bone meal, charcoal dust or cayenne pepper.
- ✓ Temporarily seal the area with petroleum jelly, until you can permanently seal it with silicone caulk.
- ✓ Spray or wipe the area with soap and water or solution of half vinegar and half water in areas where there are a lot of ants.



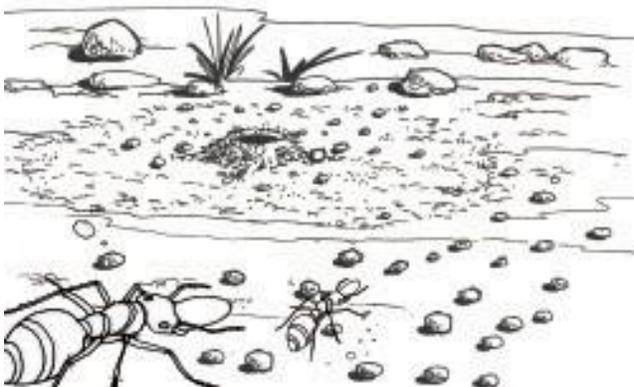
2. Destroy the nest

If you cannot find the nest, set boric acid baits near the point of entry.

You can buy these baits or make your own trap using 2 teaspoons of boric acid powder, 4 ounces of water, and 1 teaspoon of sugar.

Put the bait on a lid or small container. The ants will carry poison back to their nest and kill other ants.

If you know where the nests are, pour 1-2 gallons of boiling water onto the individual ant hills.

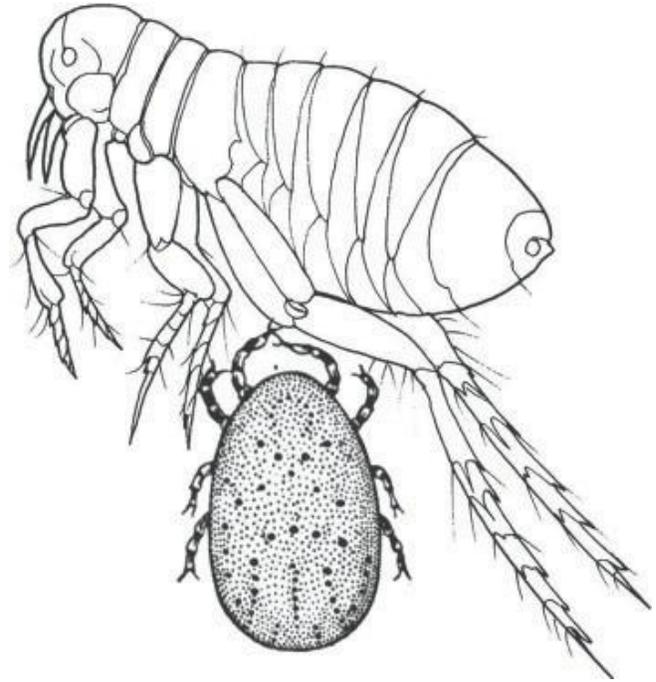


Fleas

If you have a pet with fleas, try to control the fleas—

- ✓ Groom your pet with a flea comb to inspect for and remove fleas.
- ✓ Vacuum often and throw away the bag.
- ✓ Use soap and hot water to clean the area where the pet sleeps. If the pet has a bed, wash it once a week.
- ✓ Shampoo your pet regularly with plain soap & water or grooming shampoo (without pesticides).

If these steps are not enough, you may need to buy a product to get rid of the fleas, but try using a less-toxic product.



Mosquitoes

Reduce the Risk

The most effective way to reduce a local mosquito population is to remove their breeding areas in sources of standing water, such as old discarded tires, clogged gutters, planters, bird baths, or tree stump holes. Empty children's swimming pools when not in use. Other easy steps to consider include:

- ✓ Keep grass cut short and trim shrubs to minimize hiding places for adult mosquitoes.
- ✓ Wear a hat and light-colored, loose-fitting clothing (avoid wearing bright colors or flowery prints).
- ✓ Avoid using scented soaps and shampoos, lotions, oils or perfumes, including tanning products.
- ✓ Use appropriate lighting or fluorescent lights. Iridescent lights attract mosquitoes.

Repellents

Many insect repellents include the chemical DEET (N,N-diethyl-metatoluamide). DEET is absorbed through the skin and can cause harm, especially to children. Other repellents include natural ingredients such as citronella, eucalyptus oil, or soybean oil, which are safer for use on children.

If you use a repellent with DEET, it should contain no more than 10 percent of the chemical. The concentration of DEET varies significantly from product to product, so read the label on any product you purchase.

Repellents with DEET should not be used on infants under the age of 2.



When we have no choice... How do we safely use pesticides?

If you have tried everything to get rid of a pest and nothing is working, then it may be necessary to use a pesticide. Here are some safety tips:

1. Use the least toxic method of pest control.
2. Try using traps (like ant traps or roach traps) and baits first.
3. Use sprays as a last resort.
4. Avoid using household "bombs" or pesticide products that spray an entire house or room at one time.



Use the pesticide for the pest that it is designed to control.



Read the label and follow the directions.

Wear protective clothing such as long sleeved shirts and pants and rubber gloves.



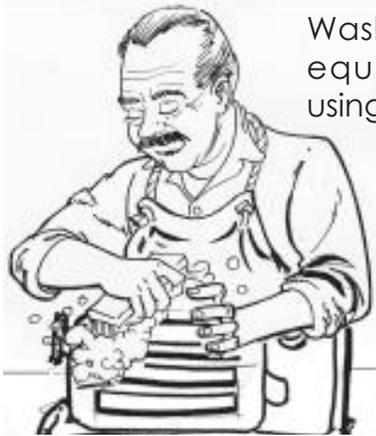
Make sure food, dishes and utensils are put away or covered in the areas where pesticides are being used.



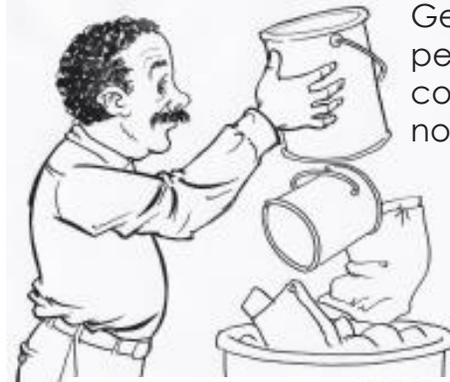
Do not use around children.

Store all pesticides in their original container and away from pets and children.





Wash application equipment after using it.



Get rid of pesticide containers. Do not reuse them.



Wash clothing worn while applying pesticide separately.



Wash hands and if possible bathe as soon as possible after applying pesticides.



Never take pesticide containers home from work.



Never use pesticides from the farm at home.

Ask if they have applied pesticides in or near their home. Ask them some ways they could protect their children from being poisoned or exposed to pesticides. Try to make them think and to offer answers without you having to "tell all" to the family. Take advantage of what they think and then link it to the information you are offering.



If you use a repellent that contains DEET:

- ✓ Apply only to exposed skin and/or clothing. Do not use under clothing.
- ✓ Never use repellents over cuts, wounds, or irritated skin.
- ✓ Do not apply to eyelids, eyes, or mouth, and apply sparingly around ears.
- ✓ Do not spray directly onto face; spray on hands first and then apply to face.
- ✓ Do not allow children to handle the product, and do not apply to children's hands. When using on children, apply to your own hands and then put it on the child.
- ✓ Do not spray in enclosed areas like a room without ventilation. Avoid breathing a repellent spray and do not use it near food.
- ✓ Use a small quantity of repellent, just enough to cover exposed skin and-or clothing. Constant application is unnecessary.
- ✓ When returning indoors, wash treated skin with soap and water or bathe. This is particularly important when repellents are used repeatedly in a day or on consecutive days. Also wash treated clothing before wearing it again.

If you suspect that you or your child are reacting to an insect repellent:

1. Stop using it.
2. Wash treated skin.
3. Call your local poison control center.
4. If/when you go to a doctor, take the repellent with you.



General Precautions

Pesticides can get rid of insects and other pests, but using too much pesticides or not using pesticides safely could cause problems.

Pesticides used in the house can poison kids, adults, and pets. There is also a potential risk of contaminating water or damaging the environment.

The risk associated with pesticides increase if they are not used, stored, or discarded properly.

To reduce pesticide exposure:

- ✓ Make sure pets do not enter the house.
- ✓ Use less toxic ways to get rid of pests.

If it is necessary to use pesticides, you should:

- ✓ Read the product's label carefully and follow all the safety instructions.
- ✓ Use the appropriate safety equipment, like gloves and long-sleeved shirts.
- ✓ Wash hands, clothes, and tools used for applications after use.
- ✓ Store pesticides in their original containers and in areas out of reach of children.
- ✓ Discard the empty containers appropriately.
- ✓ Never use agricultural pesticides in the house.



Never use agricultural pesticides in the home

Using pesticides from the farm in the home is dangerous and illegal. These chemicals are not designed to be used near people. Farm pesticides properly used outdoors are broken down by sunlight, rain, and bacteria. When they are used inside, there can be long-lasting effects that could hurt you, your family and pets.

When used indoors, farm pesticides can cause serious health problems including:

DIZZINESS

HEADACHES

BLURRED VISION

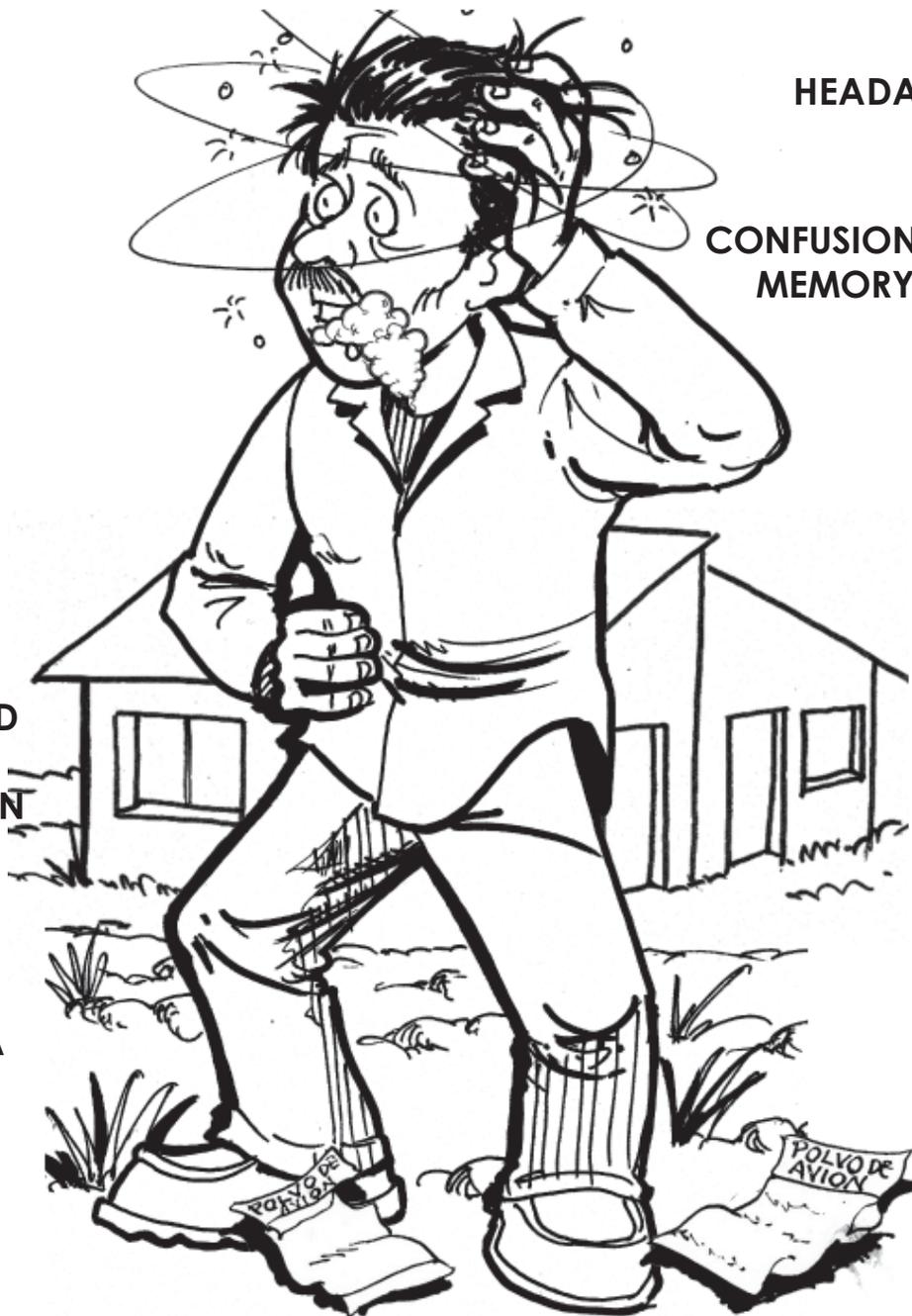
CONFUSION AND MEMORY LOSS

DIFFICULTY BREATHING

WEAKNESS AND POOR COORDINATION

VOMITING AND DIARRHEA

DEATH



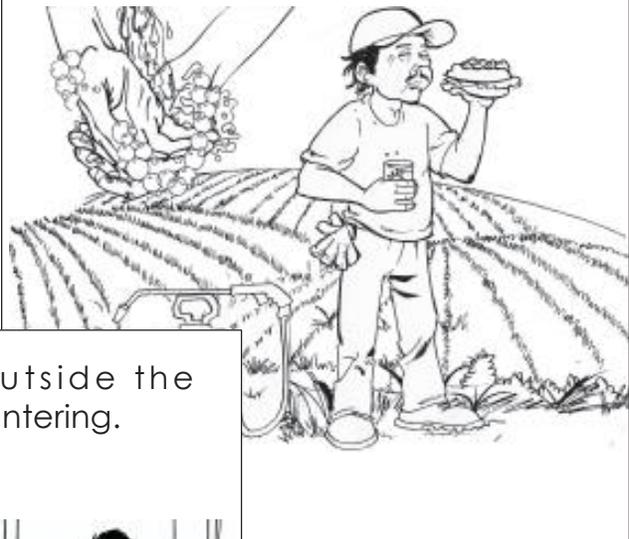
It is also against the law to misuse certain pesticides. You must follow the label's instructions and never use a pesticide that does not have a label.

WORKING WITH PESTICIDES IN AGRICULTURE

*If we work with pesticides...
How do we protect ourselves and our families?*



Wash hands before eating, drinking and smoking. Wash hands before and after going to the bathroom.

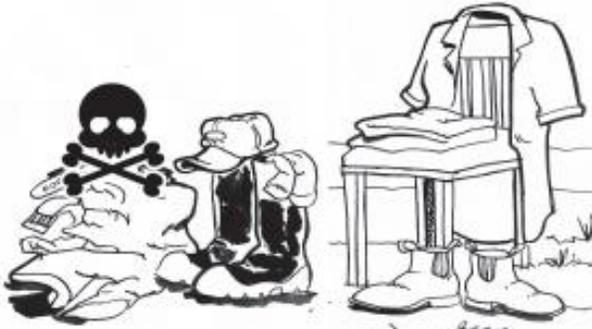


Take shoes off outside the house before entering.

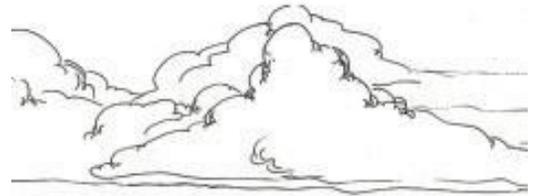
Change clothes after working with pesticides or in fields that have been sprayed with pesticides.



Wash work clothes separately.



Shower (if possible) immediately after working with pesticides or in areas where they have been applied.



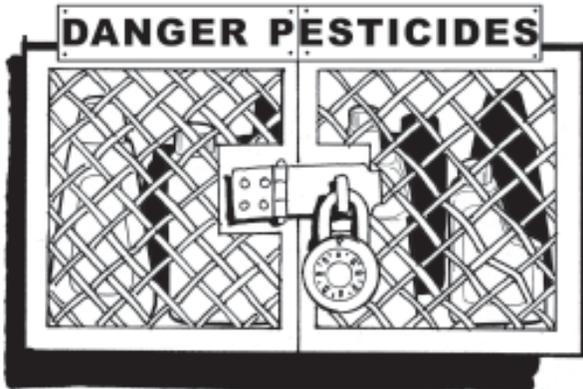
Keep out of recently treated fields until the allowed time of entry.



Never use pesticide containers for anything else.



Keep pesticides and other chemicals out of the reach of children.



Never take pesticides home from work.



What is the Worker Protection Standard or WPS for farmworkers?

You can ask if anyone in the family is a farmworker or farmer, or works in landscaping, greenhouses, nurseries or on a golf course. Or if they know someone who works around pesticides. If the answer is yes, you can ask how they protect themselves and their families. Make sure you give them basic safety information and recommendations from the WPS.



The Worker Protection Standard (WPS)

The Worker Protection Standard (WPS) is a federal rule designed to protect the health of farmworkers and pesticide handlers.

Its requirements include:

Protection during applications

Applicators are not allowed to apply a pesticide in a way that will expose workers or other people.

Workers should keep away while pesticides are being applied.

Restricted-entry intervals (REI)

Workers are not allowed to enter a pesticide treated area during the restricted entry interval. There are a few exceptions, but workers who enter must be properly trained and provided with personal protective equipment. These restricted entry intervals should be specified on all pesticide labels.

Personal protective equipment

Farmworkers can protect themselves by wearing long sleeve shirts, long pants, hats, gloves and boots. Applicators and some farmworkers will need additional protective equipment to wear and use if the pesticide label requires it.

Notification of workers

Workers must be notified about treated areas so they may avoid exposure.

Decontamination supplies

Handlers and workers must have an ample supply of water, soap, and towels for routine washing and emergency decontamination.



Emergency assistance

Transportation to a medical care facility must be made available if a worker or handler may have been poisoned or injured.



Pesticide safety training

Training is required for all workers and pesticide handlers. It is required every year.

Access to information about the pesticide

Handlers and workers must be able to access information about the pesticides being used where they work. In a central location, there should be posters about ways to keep safe from pesticides. Workers should be able to access the safety data sheet for each pesticide.



Children under 18 cannot apply pesticides

To apply, mix or load pesticides, the applicator or handlers must be at least 18 years old. Children under 18 are not allowed to enter an area that is restricted.

Protect yourself and your children from pesticides

- ✓ Never take a pesticide container home with you or use the container for something else.
- ✓ Wash your hands before you eat and before and after using the bathroom.
- ✓ Shower after work.
- ✓ Leave your shoes outside your house.
- ✓ Wash your work clothes separately.



CONSIDERING ASTHMA AND LEAD

Asthma

Asthma: is a chronic condition that makes it hard to breathe. People with asthma often wheeze or cough. The severity and frequency of the symptoms vary with by person, physical activity, the time of day, and environmental factors.

Factors that could provoke an asthma attack are:

Inside the house

Tobacco smoke, dust or clouds of dust, pets, mold, cockroaches, pesticides and aerosol sprays.

Outside the house

Pollen, contaminated air, dust, cold air, physical activity, and pesticides.



To control asthma:

Take control of your environment:

- ✓ Identify the factors that trigger your asthma
- ✓ Eliminate or avoid contact with the factors that trigger your asthma
- ✓ Avoid contaminating the air inside your house with tobacco smoke, aerosol sprays, or pesticides

Seek medical attention:

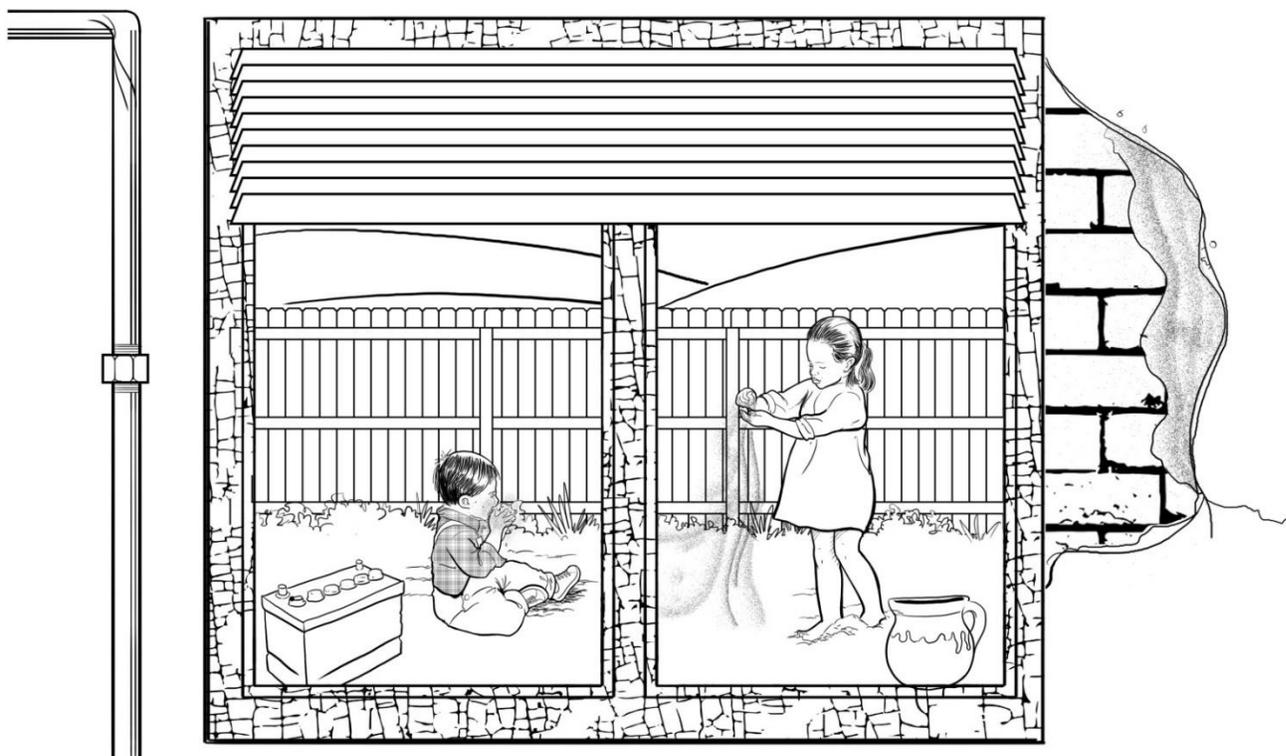
- ✓ Talk to a doctor
- ✓ Take medicine prescribed for asthma exactly how the doctor instructs

For more information call the American Lung Association at 1-800-586-4872

Lead is a heavy metal that can be found in your home as well as the environment. When it is ingested by a Young child, even small quantities can be harmful.

Common sources of lead include:

- ✓ Lead-based paints (prohibited for use in the United States, after 1978)
- ✓ Dust and soil (contaminated by residue/remains of lead-based Paint or gasoline)
- ✓ Water that has traveled through lead pipes or pipes that have been welded with lead
- ✓ Home remedies (like greta or azarcón)
- ✓ Ceramics with a lead glaze
- ✓ Car batteries
- ✓ Some window blinds



To protect children from lead exposure

- ✓ Keep your house free of lead paint, dust, or products contaminated with lead.
- ✓ Practice good hygiene and make sure children wash their hands.
- ✓ Feed your children meals that are low in fats and high in iron, such as eggs, spinach, meats and beans.
- ✓ Feed children products that are high in calcium, such as milk, fish, and spinach.
- ✓ Check with your doctor. Young children should be routinely screened for lead exposure and that often includes a blood test to see if they have been exposed.

For more information, call the National Lead Information Center at 1-800-532-3394

GLOSSARY

Asbestos

Asbestos is a mineral known for its durability because of its resistance to heat and chemicals. It is used in construction and automotive industries. It is very dangerous to humans if they breathe it in.

Active Communication

When you listen carefully and choose the best way to share information and knowledge with the family.

Active Ingredient

The part of the pesticide that kills or controls the target pests. The active ingredient is usually combined with other substances.

Acute

Immediate. The health effects of an acute pesticide poisoning usually happen within the first few hours to one day of being exposed. An acute pesticide poisoning is generally a one-time exposure that causes immediate sickness.

Dose – Time Relationship

The amount (how much) and the length of time (how long) that a person is exposed to a chemical or pesticide. How much of a pesticide a person is exposed to and for how long a person is exposed affects whether or not a person can get sick from pesticides.

Chronic

Long-term. The health effects of a chronic or long term pesticide exposure usually happen after repeated exposure to small amounts of the pesticide over a long period of time.

Excretion

The process that gets rid of waste.

Fungicide

A type of pesticide used to kill or control fungus on plants. It helps to prevent plant disease.

Herbicides

A type of pesticide used to kill or control weeds. Herbicides are the most common type of pesticide used.

Insecticides

A type of pesticide used to kill or control insects.

Lead

Lead is a heavy metal that can be found in your home as well as in the environment. When it is ingested by a young child, even small quantities can be harmful.

Metabolism

The chemical processes that are needed to stay alive. In metabolism some substances are broken down to give energy for vital processes, and other substances are synthesized or put together in order to live.

Mites

Small insects that live in your home. They are found in human and pet dandruff. They live in the dust of warm, humid places like pillows, mattresses, carpets, and stuffed toys in the home. They can cause allergies and asthma.

Mold

A fuzzy bacteria that grows in hot, humid, dark places. If someone is exposed to a small amount of these bacteria, they can experience a stuffed nose and itchy eyes. In more severe cases, exposure to mold can cause a fever and can make it difficult to breathe.

Inert or Inactive Ingredient

Added to a pesticide or mixed with the active ingredient to help apply the pesticide or make the pesticide work better. Water, kerosene, and chlorinated solvents are commonly used as inert ingredients. Typically, the inert ingredients are not known as they are considered a “trade secret.”

Routes of Entry

How chemicals get into the body. There are three routes of entry or ways that pesticides can get into the body—skin, nose and mouth.

Personal Protective Equipment (PPE)

The type of clothing and gear that must be worn by workers that deal with pesticides. In many instances the employer is responsible for providing PPE to the workers. The type of equipment can be different depending on the chemical and the label, but it usually includes wearing a long-sleeved shirt, long pants, gloves, hat and boots. PPE can also include clothes that protect against chemicals, boots and a mask.

Pesticides

Chemicals used to control or kill “pests”—insects, rodents and weeds that may be harmful to our health or to our crops. While pesticides may help get rid of unwanted pests, they can also be harmful to plants, animals and people. Pesticides are used in and around the home, in schools, in offices, in the community and in agriculture.

Restricted Entry Intervals (REI)

The amount of time that workers are “restricted” or not allowed to work or enter the fields after it has been sprayed or treated with pesticides.

Rodenticides

A type of pesticide used to kill or control rats, mice and other rodents.

Tolerance

The ability of an animal or plant to survive single or repeated exposure to a potentially harmful chemical without a bad effect.

Toxic

The ability of a substance to produce or cause injury. Not all pesticides are the same and some are less toxic than others.

SOURCES

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Liebman, Amy K., Patricia Juárez, Salvador Sáenz, *Aunque Cerca...Sano Training Manual*, (Austin, TX: Migrant Clinicians Network, 2004).

Ottoboni, Alice M. *The Dose Makes the Poison: a Plain Language Guide to Toxicology*, 2nd Edition (New York: John Wiley and Sons, 1997).

Wake Forest University, The Department of Family and Community Medicine, *Send Pests Packing/Digale Adios a las Plagas*, (Winston-Salem: Wake Forest University, 2003).

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ADDITIONAL RESOURCES

Aunque Cerca Sano, Comic Book

<https://www.migrantclinician.org/toolsource/resource/comic-aunquecerca...sano.html>

Poco Veneno... no Mata? Comic Book

<https://www.migrantclinician.org/toolsource/resource/comic-poco-veneno...%C2%BFno-mata.html>

Brochures about Dust, Asthma, and Chemicals

<https://www.migrantclinician.org/toolsource/resource/educational-brochures-asthma-lead-and-pesticides.html>

Video: The Playing Fields (can be seen on YouTube on your cellular phone)

<https://youtu.be/P1x4RubQCFI>

Video: Chasing the Sun (can be seen on YouTube on your cellular phone)

<https://youtu.be/srimYf7qeOE>