

Health Education Recipe: Body Mapping

Acknowledgement: Material was adapted from “Pesticides are Poison,” a section of [A Community Guide to Environmental Health](#) by Jeff Conant and Pam Fadem, Hesperian Foundation, www.hesperian.org.

Goal: To protect farmworkers and their families from pesticide exposure.

Learning Objective: At least 75% of participants will share how they have been affected by pesticides; they will also contribute to a discussion about the common dangers they face in their work.

Time: 30 - 45 minutes

Materials: Large drawing paper, pens or pencils, tacks or tape, a bottle, a set of relevant “yes/no” questions

Target Audience: Single farmworkers, farmworker families, and/or youth

Audience Size: Small or large group

Steps:

→ Step 1: Introduce the topic

Introduce the topic of pesticide exposure. Review the definition of pesticides as explained in the first section of the Information Sheet. Explain to participants that this recipe is intended to assist in sharing experiences about how pesticides have affected them and the common situations they face in their work.

→ Step 2: Make a large body drawing

Make a large drawing of a person’s body. If you have sheets of paper that are as large as a person, one person can lie down on the paper while another person traces their outline. Next, tape or tack the drawing to a wall so everyone can see it. If you want, make two drawings – one for the front of the body and one for the back of the body.

Facilitator Note: If your participants are men and women, be mindful of your group’s level of comfort with physical closeness. You may want to delegate the body drawing exercise to a team of two friends, of the same gender. Or, distribute a handout with an outline of a body on it.

→ Step 3: Mark the effects of poison

Use the drawings to show what parts of our bodies are affected by pesticides. Each person in the group marks an “X” on a part of the body where he or she has been affected by pesticides. If the group is small, each person can say out loud what the health effect was. For example, was it stomach pain, skin rashes, dizziness? She might also say what caused the health effect. Was it a spill, a mixing accident, drift, just normal work, or something else?

If some participants have not worked with pesticides, ask them to either share stories from other farmworkers they know or they can imagine possibilities.

If the group is large, it may be easier to designate one person from each group to present their drawing. After everyone makes their marks, the recipe leader should point to each mark and ask what harmful effect the mark represents. The important thing is for people to use the drawing to illustrate their own experience with pesticides.

→ Step 4: Discuss common pesticide exposures

The outreach worker can ask questions to help people talk about pesticides. [It can be helpful for another person to take notes on a large sheet of paper that everyone can see.] The discussion may be most useful if it is limited to three main questions, such as:

- What effects have people felt from pesticides?
- What activities or kinds of exposure have caused the effects?
- What pesticides have caused the effects?

The discussion may show how many people suffer from the same problems with pesticides. The body map illustrates where people feel the harmful effects of pesticides. *Remember to reiterate that it can be difficult to diagnose pesticide problems because sometimes the signs mirror those of other common illnesses like colds or the flu.*

The discussion and the notes are an effective way to record people's experiences and show what exposures are most common, in order to prevent these exposures.

Suggested Evaluation Technique: Consider the “Spin the Bottle” tool (see Quick & Easy Health Education Tools) with questions relevant to the Body Mapping recipe. Possible questions include:

- What health problems are related to pesticides?
- What activities or kinds of exposure have caused the effects?
- Can you name one pesticide that you believe has caused a health problem?

PESTICIDE EXPOSURE

Information Sheet

Description: Pesticides are chemicals used to kill insects, rodents, and weeds that might harm our crops and our health. But pesticides also poison and kill other living things, including helpful plants, animals, and people. Pesticides can drift for miles from where they are applied and pollute the soil, water, and air.

In the three health education recipes that follow, we use the word *pesticides* to describe all chemicals used to control pests. They include:

- ***Insecticides*** used to kill insects.
- ***Herbicides*** used to kill weeds.
- ***Fungicides*** used to control plant diseases.
- ***Rodenticides*** used to kill rats, mice, and other rodents.¹

Farmworker Lives: Pesticides are a significant environmental hazard for farmworkers and their families. The Environmental Protection Agency estimates that agricultural workers suffer 10,000 to 20,000 acute pesticide poisonings each year. The U.S. Bureau of Labor Statistics has found that farmworkers experience the highest rate of chemical-related illness of any occupational group.

Children from agricultural families are particularly vulnerable to pesticides; they are exposed to higher levels of pesticides than those whose parents do not work in agriculture and do not live close to farms. Migrant farmworker children as well as children living in agricultural areas may be exposed to higher pesticide levels than other children because pesticides may be tracked into their homes or by pesticide drift. Additionally, some children are exposed to pesticides by playing or working in nearby agricultural fields. Children face particular risks from pesticides as their developmental patterns, behavior, and physiology make them more susceptible than adults.²

Background Information:

How Do Farmworkers Get Sick from Pesticides?

Pesticides can poison farmworkers in different ways: through the skin, eyes, mouth (swallowing), or the air (breathing). Each kind of poisoning needs a different kind of treatment.

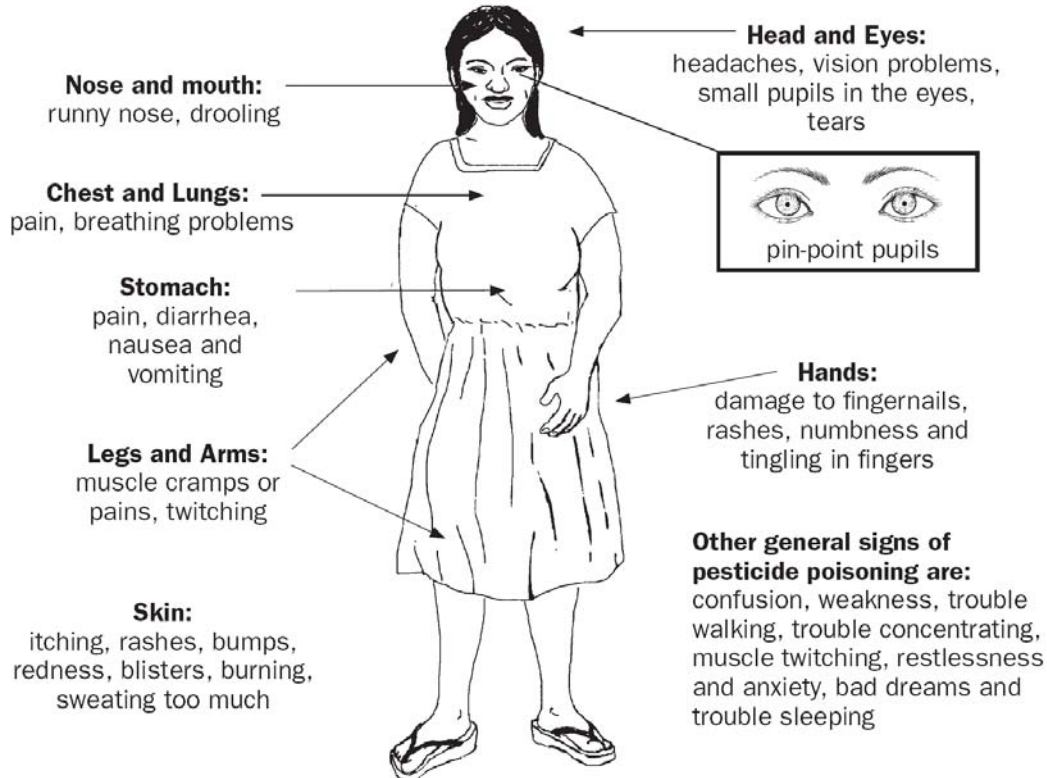
Pesticide poisoning can cause many health problems. A person exposed to pesticides can have more than one sign. Some signs show up when a person is exposed. Other signs do not show up until hours, days, or even years later. **It can be difficult to diagnose pesticide problems**

¹ Conant, Jeff and Pam Fadem. "Pesticides are Poison," a section of A Community Guide to Environmental Health, Hesperian Foundation, 2008, www.hesperian.org.

²Migrant Clinicians Network website. Clinical Excellence, Pesticide page:
<http://www.migrantclinician.org/excellence/environmental/pesticides>

because sometimes the signs mirror those of other common illnesses like colds or the flu. Here are some common signs of pesticide poisoning.³

Signs of pesticide poisoning



If the farmworkers you are working with have any of these problems with pesticides, they should leave the worksite immediately and not wait until they feel worse. Get away from the pesticides and go to the health center right away! **Make sure that farmworker participants know the importance of telling their doctor about their pesticide exposure.**

How to Reduce Risk from Pesticide Use:

Most farmworkers do not like to use pesticides. Nobody wants to endanger his health or his family's health. But for growers who must produce crops for market sometimes there does not seem to be any choice.

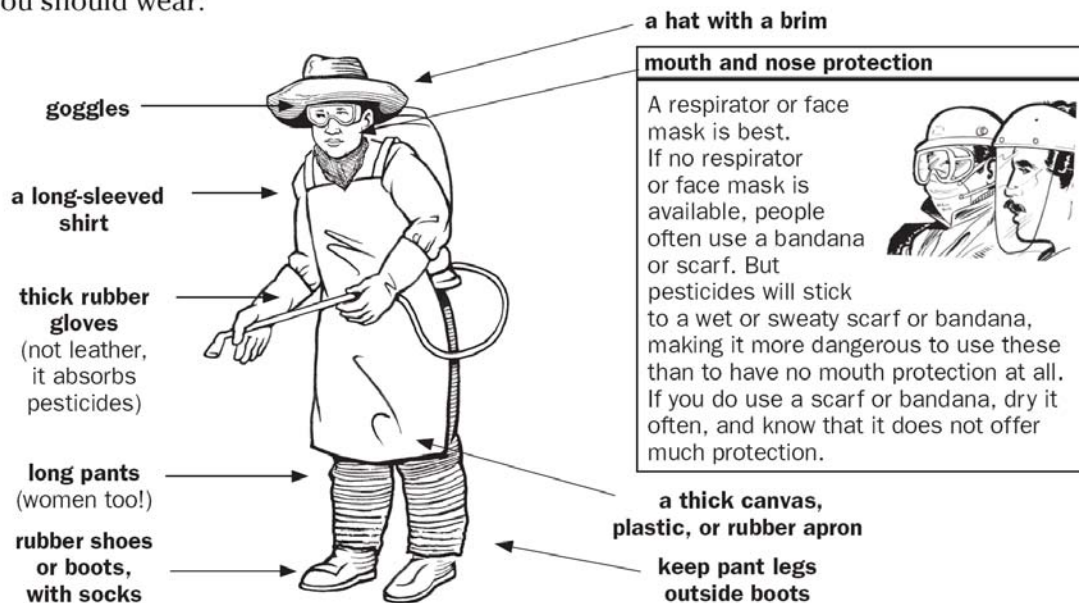
³Graphic and captions are courtesy of "Pesticides are Poison," a section of [A Community Guide to Environmental Health](http://www.hesperian.org) by Jeff Conant and Pam Fadem, Hesperian Foundation, 2008, www.hesperian.org.

If the farmworkers you know work with pesticides, it is important for them to take precautionary measures. It is critical that farmworkers be responsible for their own well-being and the well-being of other people and the environment. Here are some things farmworkers can do to protect themselves and those around them:

- Control pests without pesticides if possible.
- Do not work alone with pesticides.
- Use pesticides only on their intended crop.
- Keep pesticides in labeled containers.
- Use the smallest amount you can. More is not always better.
- Do not mix different pesticides together.
- Keep pesticides off your body.
- Keep pesticides away from water sources.
- Do not use pesticides when it is windy, raining, or about to rain.
- Make sure your clothing covers you completely.
- Make sure your equipment works properly.
- Try not to wipe your eyes, face, and neck when handling pesticides.
- Wash your hands before eating, drinking, or touching your face.
- Wash your clothes with care after working with pesticides. Separate pesticide-exposed clothing in a hamper before entering the house and before contact with children.
- Do not enter sprayed fields until it is safe to do so.
- Bathe well after using pesticides.
- Learn to read and understand pesticide labels.
- Create a first aid kit for a pesticide-related emergency. For specific details, see the following resource: “Pesticides are Poison,” a section of [A Community Guide to Environmental Health](#) by Jeff Conant and Pam Fadem, Hesperian Foundation.
- Use protective clothing and equipment.⁴

⁴Graphic and captions are courtesy of “Pesticides are Poison,” a section of [A Community Guide to Environmental Health](#) by Jeff Conant and Pam Fadem, Hesperian Foundation, 2008, www.hesperian.org.

If you work with pesticides or enter a field soon after pesticides have been sprayed, you should wear:



Corresponding Health Education Recipes:

- Body Mapping
- How Do Pesticides Enter the Body?
- Drawing Pesticide Solutions

Glossary of Terms⁵

- *Active ingredient* – the ingredient in a pesticide that kills pests.
- *Acute* – when something happens suddenly, and is serious or strong. An acute illness is one that comes quickly and be very dangerous.
- *Chronic* – something that lasts for a long time or happens often. A chronic illness is an illness that lasts for many years and is difficult to treat or cure.
- *Exposure* – the way a person comes in contact with something, in this case with pesticides.
- *Inert Ingredient* – the part of a pesticide that is not the active ingredient. Inert ingredients include chemicals that make pesticides stick to plants and bugs or prevent them from being washed off in the rain. These ingredients are often very poisonous.
- *Inputs* – anything a farmer buys to help crops grow. Pesticides and fertilizers are two examples of inputs.
- *Organic agriculture* – agriculture that does not use chemical fertilizers or pesticides. Before pesticides were invented all farming was organic farming. The word organic also refers to crops grown without chemicals.
- *Pesticides* – poisonous chemicals used to kill insects, weeds, rodents, and plant diseases.

⁵ Conant, Jeff and Pam Fadem. "Pesticides are Poison," a section of [A Community Guide to Environmental Health](http://www.hesperian.org), Hesperian Foundation, 2008, www.hesperian.org.

- *Residue* – the dry powder or oily film that remains on crops after the pesticide spray dries.
- *Respirator* – a protective mask that covers the nose and mouth and keeps people from breathing poisons. Respirators have various filters for different kinds of poison. In order to work well, a respirator must have the correct filter and cleaned often. It also must fit very snugly, so that no poisons penetrate.
- *Toxicity* – The potential of any pesticide to cause harm. Some pesticides are more toxic to humans than other pesticides. The signal words of Danger, Danger-Poison, Warning, and Caution on the pesticide label reflects the relative degree of toxicity and hazard to people and the environment. The most potentially toxic or toxic pesticides have the signal word “Danger” and, if they are highly toxic to people, will also have the word “Poison” along with a skull and crossbones symbol on the label. Pesticides that are moderately hazardous have the signal word “Warning” on their labels. Pesticides having lower risk and presenting less hazard have the signal word “Caution” on their labels. Pesticides having the least risk may have no signal word.

Resources

- “Pesticides are Poison,” a section of [A Community Guide to Environmental Health](#) by Jeff Conant and Pam Fadem, Hesperian Foundation, www.hesperian.org.
“Pesticides are Poison” is a chapter from a guide that addresses environmental health topics such as sanitation, water quality and supply, food security and sustainable farming, mining and oil drilling, industrial pollution and forestry.
- A Little bit of Poison... Will it Kill You? Manual for Lay Health Educators
http://www.migrantclinician.org/resources/poison_manual_eng.pdf [English]
http://www.migrantclinician.org/resources/veneno_manual_sp.pdf [Spanish]
This manual is a guide for lay health educators or promotores de salud to assist them with community based pesticide education activities. The manual offers information about health risks from pesticide exposure and ways to lessen these risks. Also, it includes useful information and tips to successfully work in the community. Available in Spanish -- Poco Veneno...¿No Mata? Comic Book.
- Migrant Clinicians’ Network
http://www.migrantclinician.org/resources_search?filter_program=84
For a comprehensive list of farmworker-specific pesticide-related resources, patient education and community tools, and organizations.
- National Pesticide Information Center (NPIC)
Contact information: <http://www.npic.orst.edu> or 1-800-858-7378
NPIC is a cooperative effort of Oregon State University and the U.S. Environmental Protection Agency. They address questions from individuals and organizations nationwide on a wide variety of pesticide topics, including health and safety, pesticide toxicology, and environmental effects. NPIC assists the public in over 170 different languages and have a dedicated Spanish speaker.