

## The following are suggestions to teach and demonstrate the potential dangers of handling chemicals.

### CHEMICAL SAFETY TEACHING TIPS

- ▶ Sprinkle Glo-Germ powder in and onto a pair of gloves. Ask one person in your audience to wear the gloves while you give your presentation. When finished, have the person wearing the gloves come to the front of the room. Turn off the lights and use an ultraviolet light to examine all the places the person touched while listening to the presentation. Discuss the spread of the Glo-Germ powder, potential contamination, and the importance of wearing PPE around chemicals.
- ▶ Ask a volunteer wearing dark clothing to sprinkle talc powder onto their clothing. Explain the high concentration and the ability to see the powder. Turn a fan on high in front of the volunteer and allow the powder to blow in all directions. Ask the other audience members to see if they have any powder on them now. Explain that just because they cannot see the powder anymore does not mean it's not still present and that respirator masks are recommended.
- ▶ Draw a farmstead on a white poster board including an apple tree, a couple of kids, a dog, and an adult in a yard. Prepare a mixture of water and food coloring in a non-aerosol spray bottle. Ask a volunteer to spray the apple tree with the water mixture holding the bottle a couple inches away from the poster. Observe where the liquid goes on the poster. Repeat the experiment from a distance of 1 foot. Discuss the differences and the range of the liquid sprayed on the poster.
- ▶ Using a large piece of paper ask audience members to draw a bird's eye view of a farmstead. After drawing is complete ask them to identify any area that could have chemicals present by coloring it red. (Medicine in the house, gasoline in the tractor, weed killer in the garage, etc.) Have post-it notes ready with locks drawn on them. Have the observer cover any items that should be locked up with the notes. Discuss characteristics of safe, locked areas.
- ▶ Have observers search for emergency contact numbers in a local phone book. Prepare a list of things for them to look up such as: rescue (alternative to 911), poison control center, police station, and closest neighbor to their farm. Talk about a situation where you would call each number. Have each child take home his or her list of contacts to place next to the home phone, on the fridge or in the barn.



Children are exposed to chemicals everyday.

Lock cabinets, drawers, and closets where chemicals are found and stored.



# Chemical Safety: Demonstration Ideas

- ▶ Split the group into two smaller groups. Make a list of 10 chemicals used on or around a farm (bagged lawn fertilizer, can of bug spray, crop insecticide, bagged seed corn, garden manure, etc.). Have the groups use the internet or phone to find what empty containers can be placed in the recycling bins, trash, burnt, or must be taken to a special hazardous waste receptacle station.
- ▶ Collect farm chemicals in small transparent, tightly sealed containers or jars along with safe household items that are similar. Have the observer guess which liquid in the set is the safe one. Have several volunteers make guesses and then reveal the answers at the end discussing that unmarked chemicals are hard to identify and always need to be labeled.
- ▶ Find two large transparent containers similar in size. Prepare water colored with food dye for the activity. Ask a volunteer to pour the liquid from one container to the other using a funnel. The amount of liquid should be marked on each container. Repeat the pouring but only allow 20 seconds to accomplish the task. Pour the liquid back into the empty container one more time but only allow 2 seconds this time. Observe the mess it makes and the amount of lost liquid when going from one container to the next. Explain the risk in carelessness and hurrying with chemicals.
- ▶ Liberally dust a pair of dark jeans with talc powder and rub it into the fabric. Ask a volunteer to wash out the jeans in a bowl of water. Show the participants the resulting water – it will appear cloudy. Give the volunteer a pair of dark socks and ask him/her to wash them in the same water. Explain that the water transferred the pesticide residue to the socks. This is what happens when family clothes are washed after PPE clothing is washed.

Keep all chemicals in their original, labeled containers to avoid any confusion.

Additional instructions about each of these activities are available from Farm Safety For Just Kids. Visit [www.farmsafetyforjustkids.org](http://www.farmsafetyforjustkids.org) or call 1-800-423-5437 for more information.

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## DID YOU KNOW?

Chemicals are in every household as well as on the farm, and therefore children can be exposed to many chemicals each day.

- ▶ Chemicals and chemical reactions are found naturally within the environment.
- ▶ Chemicals can be created in a synthetic form and used to destroy organisms like dandelion killer and mildew remover.
- ▶ According to the 2005 USDA Regional Pest Management Center report, 97% of corn producers used herbicides and 20% used pesticides. Cotton farmers also used herbicides on 97% of their crops, but 84% of them used pesticides as well.
- ▶ Children younger than 3 years of age were involved in nearly 40% of poisoning cases and children younger than 6 years accounted for over half of all human exposures, according to the American Association of Poison Control Centers.

