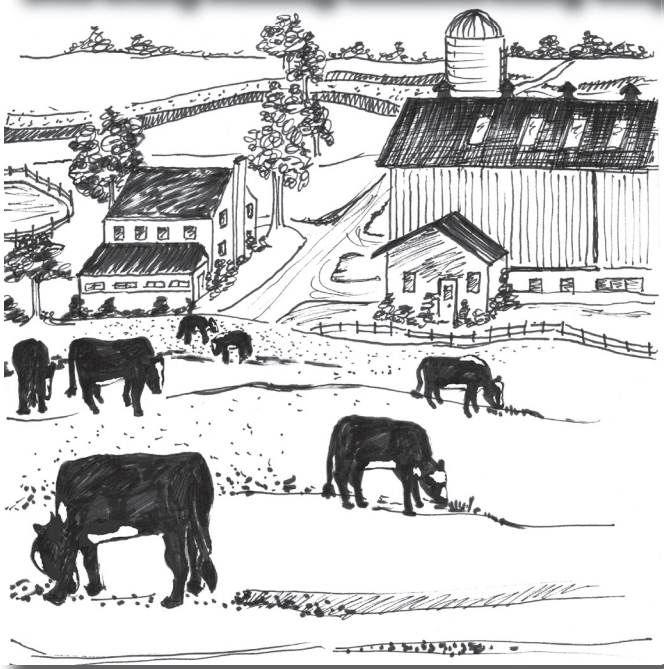
Dairy Farming Chemical Safety Story

Home & Garden Chemical Safety Story

Worker Protection Standard Chemical Story

Beef & Crop Farming Chemical Safety Story



PENNSTATE
1855
Cooperative Extension
College of Agricultural Sciences

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This material was developed with support from the National Children's Center for Rural and Agricultural Health and Safety.

National Children's Center
for Rural and Agricultural Health and Safety

Directions for Chemical Safety Stories

You will find four different chemical safety stories in this booklet.

Dairy Farming Chemical Safety Story 1

Home and Garden Chemical Safety Story 35

Worker Protection Standard (WPS) and Pesticide Safety Story 73

Beef and Crop Farming Chemical Safety Story..... 97

The goal of these chemical safety stories is to help farm family members and others become more aware of:

- How to safely use and prevent exposure to pesticides used on the farm
- Worker Protection Standard (WPS) regulations
- How to safely use and prevent exposure to pesticides/chemicals found in the home
- How to decrease pesticide and/or chemical exposure of children and adults in the home, on the farm, or when visiting another farm or home
- Emergency action steps to follow if someone is exposed to a chemical

Directions: Select a chemical safety story and read it as a family or an educator can use one of the stories for a small group (4-5 participants) safety training. School students (6th, 7th or 8th grade) and vocational students can read a story individually or work in small groups. Each story will include true and false questions. Have each participant number a paper from 1 to 35 and circle his or her answers as they come to the questions in the story. After each story, the questions with the answers are provided and discussion is encouraged. You will find additional chemical safety information in the answers.

There is an “Emergency Phone Sheet” and a “9-1-1/Poison Center” page included in the booklet for you to copy as needed. Pictures can be copied to color.

Thank you for taking time to read one or more of these chemical safety stories.

Important Emergency Numbers --- Put near every phone

Local Emergency Telephone Numbers

Fire Department	**911**	**Non Emergency** _____
Local police	**911**	**Non Emergency** _____
State police	**911**	**Non Emergency** _____
Ambulance	**911**	**Non Emergency** _____

Local hospital
_____

Family doctor
_____

Agrichemical dealer
_____

Veterinarian
_____

Electric company
_____

Gas or Propane Dealer
_____

Equipment dealer/mechanic
_____

Cooperative Extension Office

State Agriculture Department

Farm or Home Information:

Name of Home/farm _____

Address of farm _____

_____

County _____

- **Township** _____
- **Nearest two Roads** _____

_____

Direction to Farm or Home: Help can come from any direction. Be sure to write down exact, simple and accurate directions to your farm or home.

_____

_____

_____

_____

State numbers

Poison Control Center: 1-800-222-1222

POISON Help 1-800-222-1222

Hazmat:	**911**
Fire:	**911**
Police:	**911**
Ambulance:	**911**

Dairy Farm Chemical Safety Story

Jason and Linda's Dairy Farm

This is a story about a Mennonite farmer (Jason) who lives with his wife (Linda) and their 8 children on a 200-acre dairy farm. All the children (aged 6 to 14 years old) have chores to complete before and after school except for 5-year old Susan, 3-year old John and 18-month old Sarah. They have 20 heifers, 20 calves, a few chickens and milk 80 cows. Jason also grows hay, wheat, corn and soybeans. Linda has a large garden and helps with the milking so Jason can spend more time doing his field work. She washes the dairy pipeline equipment every day. She also washes the bulk tank after the milk is picked up, which occurs every other day. Linda also helps the older children feed the calves and heifers. She keeps busy baking, cleaning, doing laundry and putting up vegetables and fruit to use during the winter.

Chemicals Used on Dairy Farms

There are many chemicals used on dairy farms and in the dairy barn. Some of the chemicals are used to kill weeds, insects, fungus and molds, and rodents. There are many cleaners and sanitizers used in the milk house to clean all the milking equipment, bulk tank and pipeline. Cleaners remove milk fat residue while sanitizers disinfect the milk lines and bulk tank. Hydrated lime is sometimes used in free stalls. Hydrated lime is a hazardous substance that can cause eye irritation and burns to unprotected skin. Hydrated lime can cause damage to the respiratory system, so be careful and use extreme caution when handling this chemical.

Milk house disinfectants may or may not have child-resistant caps on the containers. Pipeline cleaners contain acids and alkali materials. These are caustic just like the drain cleaners used in homes to unclog sinks and drains. However, they are far more caustic than the common drain cleaner and can immediately cause a chemical burn when skin or mucus membranes (inside mouth/throat) come in contact with the chemical. Sometimes the chemical burns a hole in the childís food tube (esophagus) and/or stomach requiring repeated surgeries because of scar tissue. The long-term risk is that they may develop esophageal cancer.

Animals, adults and children are exposed to pesticides and chemicals by absorption through the skin, splashes to the eyes, breathing a chemical into the lungs or by ingesting (eating or drinking) a chemical. Some children ingest medications and/or vitamins even if there are child-resistant caps on the bottles. It is amazing at what a young age some children can open child-resistant caps.

Children move fast and learn by exploring. Many times adults working with chemicals (example--pipeline cleaners or pesticides) are distracted by someone or something. The distraction causes them to put the container down (sometimes only for a few seconds), but in these few seconds a child can be poisoned.

Milk House Dairy Cleaners

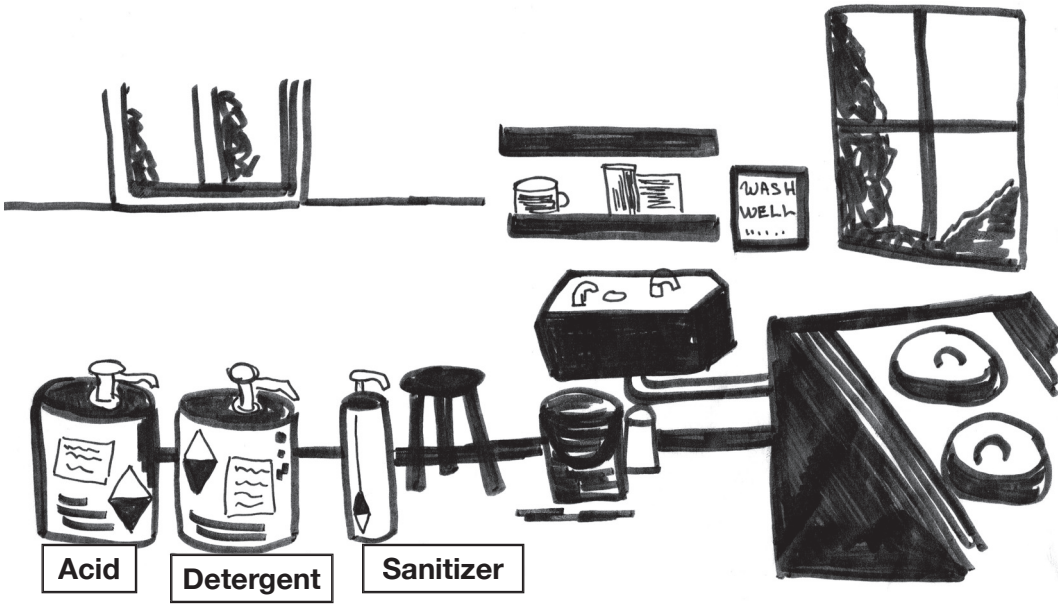
It was a warm Monday in June and Jason was glad he got an early start milking so he could get some spraying done. He discovered he was low on the pesticide he was using for his corn fields. Since Linda was going to town, Jason wrote down the name and how much of the pesticide he wanted her to purchase. He found Linda in the milk house and as he handed her his list of pesticides, the milk truck backed up to pick up their milk.

The milk truck picked up their milk.

Linda decided she had enough time to wash the bulk tank and the milking equipment before getting ready to go to town. She poured out the pipeline cleaner into a measuring cup. Just then she heard her oldest son (Thomas) calling her to the house. Her sister (Elsie) who lives in New York was on the phone.

She put the cup of pipeline cleaner up on a high shelf in the milk house and rushed to the phone. She did not want any of the children to find the cup of cleaner. She realized they might think it was something they could drink.

Linda put the cup of dairy cleaner on the shelf when she went to answer the phone.



John and the Pipeline Cleaner

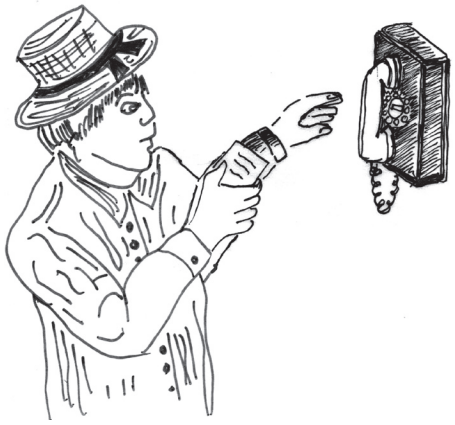
After talking to her sister, Linda went back to the milk house to finish disinfecting the bulk tank. As she got closer to the milk house door, she heard three-year-old John crying and six-year-old Barbara talking loudly. She quickly opened the milk house door and found John crying near the big barrel of pipeline cleaner. Barbara told her that John started crying when he licked a few drops of liquid from the side of the big pipeline cleaner barrel. Linda realized that John was crying because his lips were burning from the pipeline cleaner.

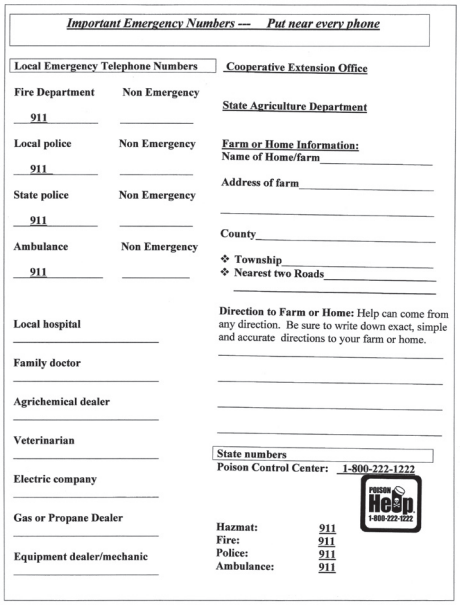
Linda called for Jason to come quickly. Jason knew by her voice that something was wrong. As he entered the milk house, Linda told him that John must have licked a few drops off the side of the big pipeline cleaner barrel. She was flushing his lips and face with water from the milk house faucet. Linda said, "It must burn and I can't get him to stop crying. What should we do?" Jason said, "I will go call the poison center; I'll be right back, keep flushing his face and lips."

Calling Poison Control and the Doctor

Jason picked up the label of the pipeline chemical and went to the phone. He quickly found the "Emergency Phone Sheet" (hanging near the phone) with the red poison control sticker and dialed the number (1-800-222-1222). How glad he was that they had the number handy; it was a time saver and made calling during an emergency much easier. Jason told the poison center what had happened. He spelled the name of the pipeline cleaner, the active ingredient, and answered all their questions about John's age, how much he weighed, and he read off the EPA number from the label.

Jason picked up the phone and called the poison center





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State numbers
Poison Control Center: 1-800-222-1222

Hazmat: 911
Fire: 911
Police: 911
Ambulance: 911

A few minutes later Jason returned to the milk house and told Linda what the poison center said. "It was good that we called them before giving John something to drink; some chemicals do cause tissue damage when swallowed and again if vomited. They were happy to hear that John did not swallow any of the chemical because pipeline cleaner is caustic similar to drain cleaner. They said to keep flushing John's face and lips with water and take him to the emergency room."

I asked if we could go to our doctor who is only a few miles away. They advised to call first to make sure the doctor would be able to see him immediately. Otherwise, we should go to the emergency room. I called Dr. Brown's office and talked to his nurse who said you should come in immediately and to knock at their side emergency door; they will be looking for you. Take this chemical label along.

Jason added, "I also called our closest driver (Jim) and he will be here in a few minutes to take you and John to the doctor. Hurry! I will stay here and flush his lips until you are ready." Soon their driver arrived and Linda and John were off to see the doctor.

Mark Your Answer on Your Answer Sheet

1. T. or F. Exposure to pesticides and chemicals occurs to animals, adults, and children through eyes, skin, lungs (breathing in a chemical) and mouth (Ingesting) by drinking or eating a chemical or pesticide.

2. T. or F. It was a good idea to put the cup of pipeline cleaner on the top shelf in the milk house before leaving to answer the phone.

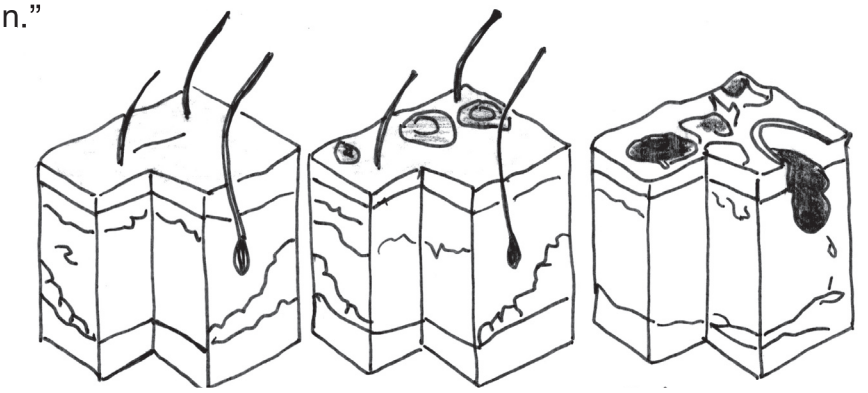
3. T. or F. If someone is exposed to a poison (and is awake and talking, not unconscious), take the bottle or label of the product to the phone and call the poison center (1-800-222-1222) before giving the person anything to drink.

4. T. or F. It is important to tell the poison center the name of the chemical, active ingredient, age and weight of the person exposed and answer any questions they might have.

John and Linda Come Home

An hour later, Linda and John arrived home. Since John was sleeping, she tucked him into his bed. She told Jason that the pipeline cleaner caused a second degree burn (blistering) of his face and lips. The nurse said, "The blistered skin means the chemical burned through the second layer of skin. A first degree burn would be red like a sun burn. The nurse said that a 3rd degree burn would look white or black. That would have been more serious because the burn would have caused damage to three layers or more of skin."

1st, 2nd, &3rd degree burns.



1st Degree Burn *Red Skin*	**2nd Degree Burn** *Blisters*	**3rd Degree Burn** *White-Black Area*

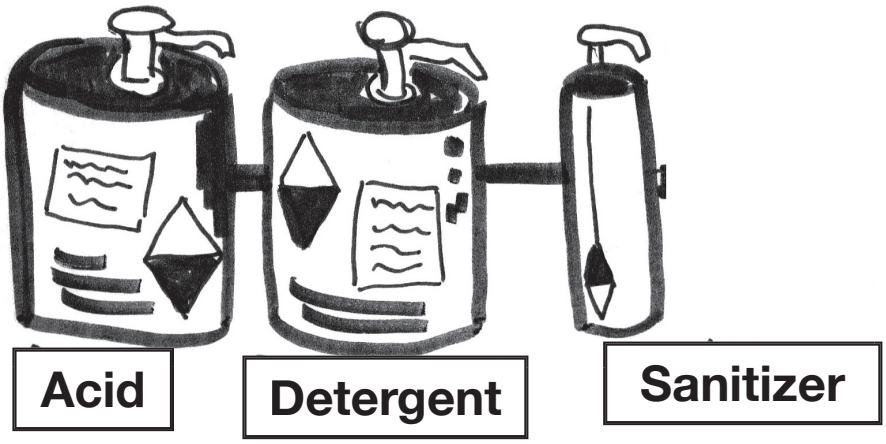
Linda continued, "The doctor told me it was good we flushed off the chemical immediately and that we called the poison center before we gave John something to drink; some chemicals cause more damage if vomited. If John swallowed some of the chemical, he would have needed some surgery to repair the damage done to his throat, esophagus, and/or stomach. The doctor gave us this tube of ointment to help the pain and to prevent infection."

Linda added, "Dr. Brown told me about a 3-year-old boy who was out in the milk house with his older brother. The child was thirsty and asked his brother for a drink. The brother picked up the cup that was sitting near the wash tubs. The older brother put water into the cup from the faucet

and gave the cup to the child, not knowing that there was some clear pipeline cleaner in the bottom of the cup. He had not rinsed the cup before adding the water, and when the young boy drank the water containing the chemical, it burned a hole in his food tube or esophagus. He was taken to the hospital in an ambulance and needed several surgeries to repair all the damage."

Linda continued, "Jason, we need to prevent other children from being exposed to the barrel of pipeline cleaner." Jason said, "Yes, you are right. We need to come up with a plan that will keep children away from the chemical barrels."

Milk House Chemicals



Jason continued, "Well! It is time to eat and the children are getting very hungry; we can talk some more over lunch." Linda sent all the children to wash up and asked them to help set the table. She quickly heated up yesterday's left-over soup, and the children set the table. John got out the bread and Linda found some lunch meat for sandwiches. The soup tasted so good and everyone was quiet because it was late; they were all hungry. All the while, Jason was thinking about what he and Linda could do to prevent this from happening again.

Lunch Discussion: What and How John Was Burned

After some silence Jason said, "I read the other day that after there is an injury at some companies, the workers and bosses take time to go over what happened, what went wrong and more importantly what they can do to prevent something like that from happening again." Linda said, "That is a good idea. Maybe we could take a few minutes now. John's injury was a wakeup call for me. It hurt me to see John in so much pain, and I do not want any child to be able to lick or more importantly drink the chemical. Just think about how big a doctor bill and/or hospital bill that would be."

Linda continued, "Well, as far as what happened and what went wrong, I had just pumped out the pipeline cleaner into a measuring cup. I next heard Thomas calling me to the phone. It was Elsie and I hurried as to not keep her waiting too long. Some of the chemical must have dropped onto the side of the barrel. As I turned to go to the phone, I realized the cup of chemical was in my hand. Well! I could not pour it back into the barrel and I did not want to leave it on the wash tubs in easy reach of the children, so I put it on the high shelf in the milk house. After the call, I came back to the milk house and you know the rest."

Jason said, "It was good that you put the cup of cleaner on the high shelf, but I was thinking it would have been easy for one of the children to push a stool under the shelf and reach up and get the cup of cleaner.

It only takes a few seconds for a child to push a stool over to the shelf.

Linda said, "You are right, Jason. Even though I was only **away for a few minutes**, I now realize it would have **taken only a few seconds for a child to push a stool over to the shelf.** The next time I am working with a chemical and get interrupted by a phone call, I plan to call the person back when I am finished. The call was not as important as making sure a child would not be exposed to the chemical."

Jason remarked, "Well, we are all human and do not always make the best choices. It is important that we learn from the not-so-good choices so that we do not make the same mistakes again. This has been a wake-up call for me as well."

Linda commented, "John and Barbara are really too young to understand how chemicals can hurt them. They have short attention spans and easily forget safety rules and directions. That is why we regularly remind all the children about safety. We as parents need to think of a way to prevent them from being exposed."

Jason added, "You are right. Now let's think of a plan that will isolate, enclose and/or lock-up the dairy chemicals so that a child cannot lick, touch, or drink any of the dairy chemicals."

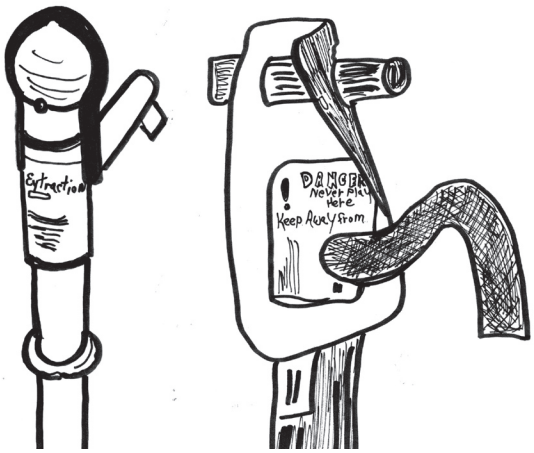
Plans to Prevent Other Exposures

Linda said, "Well! Just telling the children they have to stay out of the milk house is not going to work. Our children are in and out of the milk house many times each day. Since they cannot fully understand how a chemical can burn their skin or how chemicals can be absorbed into their body (touching, eating, drinking, breathing, or just licking) we have to protect them and prevent them from being exposed. We already keep our garden and pesticide chemicals locked-up and out of reach; now we need to do something about the milk house chemicals."

Jason said, "You are right, we do keep our farm and garden chemicals locked-up and we should have realized that keeping dairy cleaners within easy reach of children was not safe. I never thought about or realized how easily a few drops could splash onto the sides of the barrel or how much pain and tissue damage only a few drops could cause. I guess I was relying on the locking pumps on the containers to prevent exposure to our children."

Linda replied, "Well, the pumps can be locked by twisting them tight when you are finished pumping out the chemical, but it is **easy to forget to twist the pump shut or you think you turned it tight**

but really didn't. Jason added, "You know there are other pump-locking devices. The new catalog from the tractor hardware store just came the other day. There were several different locking devices." He quickly went to his desk and returned with the new catalog to show Linda a picture of two pump-locking devices.



Two different dairy chemical pump-locking devices.

Linda looked at the catalog and thought for a few minutes. Finally she said, "I think these locking devices work much like the ones we use. They can prevent children from pumping out the chemical (if they are locked properly). We need more than a locking device, we need to make sure a child cannot lick or touch any chemicals left on the top or sides of the barrel, like John did." Linda added, "Jason, could we keep the chemicals on a high shelf, out of reach, if we bought smaller containers?"

Jason said, "We use a lot of dairy cleaners, several times a day, seven days a week to clean the bulk tank and pipeline equipment. I am concerned about buying five gallon containers and storing them on a high shelf because the containers will be more difficult for you to reach and a child may try to find a way to climb up to them. The 15-gallon barrels do limit where we can store them, but buying them is far more economical. We need to think of another solution, but what?"

Linda said, "Well! Could we put a fence or wooden box-like enclosure around the barrels? That way the barrels will be behind a fence where the children will not be able to reach or touch them and I will be able to get to the pumps to measure out the needed cleaning solution."

Jason commented, "But is that going to be ok with our dairy inspector? You know how he feels about wood in the milk house?" Linda said, "You are right. What else can we do?"

Then Jason remembered the old stainless steel cabinet he had in the workshop. It was large and it could be locked. He said, "How about that stainless steel cabinet in my workshop? Stainless steel is allowed in the milk house and we can keep the door of the cabinet locked. That would prevent a child from touching the barrels. What do you think?"

Linda said, "That sounds like a good idea, but you are using that cabinet to store your paint and paint thinner. I wonder if the steel cabinet is really large enough to hold a barrel of cleaner, detergent and the sanitizer at the same time. We don't want to have to purchase another steel cabinet. We need to come up with another idea, but what?"

Jason replied, "I think you are right. We can't use wood and the steel cabinet is just not large enough. They are very expensive, and we would have to unlock two cabinets, not just one. Well, what else would work?"

Linda asked, “Jason, is there anyone in our family or any of our friends who milk, that might have thought of another way to isolate or enclose their dairy chemicals?” They were both quiet for awhile and then Linda said, “Could we use PVC pipe made into a fence to prevent children from getting to the chemical barrels?”

Jason replied, “I think that PVC pipe might be difficult and expensive to use to enclose the barrels. I was just thinking about using some wire fence to surround the barrels (like we were going to do with the wood). I have some fence material on hand but we will need to make a gate so that you can get to the pumps and I can easily exchange the empty barrels with full ones. What do you think?”

Linda replied, “A fence made out of wire or PVC material will enclose the barrels of chemicals, but the children will be able to see the barrels. I think it would be very tempting for a child to climb on PVC pipes or a wire fence. Someone could fall and be injured, and I don’t want to have to spend time reminding children not to climb on the fence. There must be another way.”

Jason answered, “Linda, you are right. A fence would be a safety concern and we would need to make sure the gate is always securely locked or a child could get into the barrels and be exposed. We have to find a way that will allow us easy access to the containers and at the same time prevent the children from being exposed. You know! A thought just came to me; I think I know someone who might have a solution.” Linda eagerly asked him, “Who?”

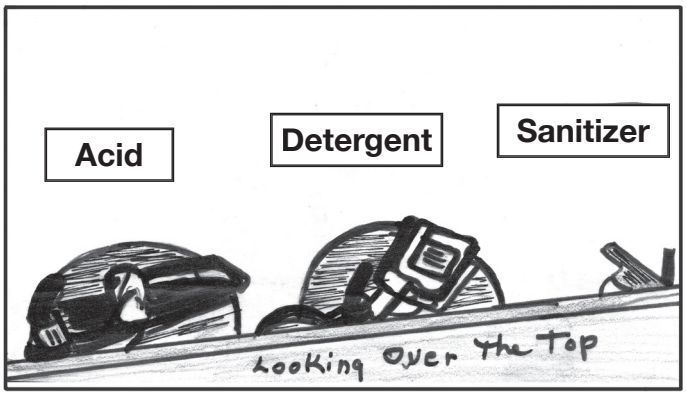
Jason replied, “Well, do you remember when my brother (Paul) went out to Iowa to help his close friend (Matthew) and his family move?” Linda said, “Yes, didn’t he stay a week or more to help Matthew and his family make some repairs to their new dairy barn and home?”

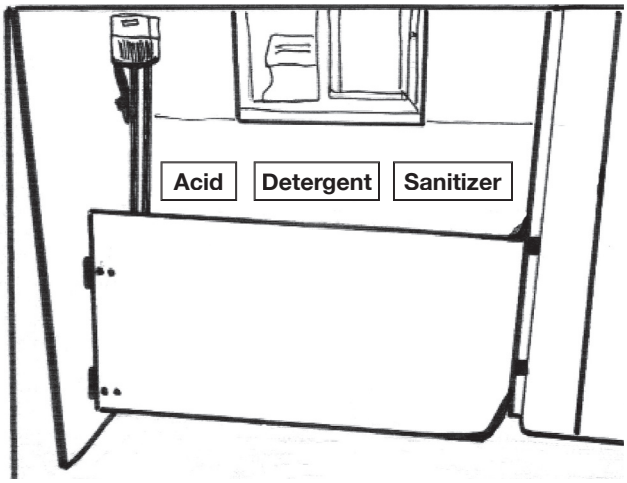
Jason answered, “Yes, he did, and I remember when Paul came home, he talked and talked about how he and Matthew installed a very sturdy fence-like barrier in front of their milk house chemical barrels. I think I will call him now; he should be in the house eating lunch. Maybe he can tell me more about how they constructed the barrier.”

Jason was gone for about 10 minutes and when he got back, he was very excited. He couldn’t wait to tell Linda all about what he found out. “Paul told me that they used a 1/2 inch white poly board to enclose the chemical barrels. One end of the board was hinged to the wall of the milk house, and the other end had a pull pin (on the inside of the panel). Only an adult could reach over top of the barrier to pump out the chemical and/or to pull the pin to swing open the poly board when they had to replace empty containers with full ones.”

“I asked Paul to draw a sketch of the barrier and to fax it to us. This first sketch is looking over the barrier, and the second sketch shows how the 30” X 60” poly barrier hides the containers from a child’s view. What do you think?”

The top extends 11 inches above the barrels.





Hinges are placed on the left side and a pull pin is on the right.

Linda looked at the sketches. Jason continued telling her how they were able to heat the poly board so they could bend the one end (right side) of the board into an L shape wrap around to better fit the space.

Jason explained what Paul told him, "The solid and smooth poly board blocks 100% the childrenís view of the barrels, and the panel extends about 11 inches above the chemical barrels, preventing children from reaching over the top to touch the pumps or barrels. The barrier will be easy to clean and will not rot or decay. I think this is something we can install to prevent our children from being exposed."

Linda looked at the sketches again and then asked, "How much did it cost and was it hard to install?" Jason answered, "Paul said it was $5.00 per sq foot, and with the hinges it was a total of about $150.00. It only took about a day to install."

Jason continued, "Paul said that Matthew was determined that a solid barrier would be installed before they started milking; he did not want any of his small children to be exposed to the caustic dairy cleaners. He knew firsthand how dairy chemicals can burn a child's hands, face, lips, tongue, and/or stomach because his younger brother (Sam) drank some pipeline cleaner when he was only four years old. Sam had to have several surgeries after the incident and still continues to need medical treatment even though it happened over 20 years ago. I don't think Paul will ever forget Matthew telling him as they were installing the barrier, that **the cost in pain and treatment of a child exposed to the chemical would far exceed the cost in time and money to construct this sturdy $150.00 barrier.**"

Linda said, "Let's talk some more during milking, but I think this might be a great solution for us. Maybe Paul will help us build a similar barrier for our dairy chemicals." Jason added, "Yes, I think this would work for us. This barrier will block a child's view of the barrels, prevent a child from reaching or touching the barrels and at the same time allow us easy access to the pumps or to replace empty barrels with full barrels. Well! I better get moving and get some hay cut; milking time will be here before I know it. I will see you later."

Mark Your Answer on Your Answer Sheet

5. T or F. A chemical can burn your skin resulting in a first, second, or third degree burn much like scalding water burns.

6. T. or F. After there is any type of injury, it is important to take a little time to talk about what happened and how to prevent that from happening again.

7. T or F. It is easy to forget to turn the pipeline cleaner pump tight, or sometimes you think you turned it tight but did not.

8. T. or F. Children have the maturity to understand what we tell them and can follow all the directions they are given by their parents.

Later That Night

Later that night after the children had gone to bed, Jason shared with Linda how glad he was that they decided to install a safety barrier around their barrels of dairy chemicals, much like the one Paul helped to install in Iowa. Jason told Linda, "Today while cutting hay, I got to thinking about what happened to John. I am glad he is ok; it could have been a lot more serious. I was wondering if there were any other hazards or potential dangers here on our farm that we should be concerned about. If there are, we need to find a way to make some changes before there is an injury or a fatality."

Linda said, "You know, at our last Sisters' Day program the educator gave us a notebook with all kinds of home and farm safety articles. One of the articles in that notebook might be helpful. It talked about how to manage farm hazards. Just a minute, I will go get the notebook." When Linda returned, she showed Jason the article **"Managing Farm Hazards"**.

Jason said, "**Looks like there are 4 steps to managing farm hazards. The first step is to identify any potential hazards on the farm**. They include a farm safety walk-about checklist that we can use to help identify safety concerns. The checklist makes it easier to identify hazardous areas where a child or adult could be injured. And there is additional room to list any safety concerns specific to our farm."

Jason added, "**Looks like the second step is to look at any hazards found and decide which cause more farm-related injuries and/or fatalities**. There is a column on the right for us to put a check mark on any item we think is a priority and should be completed first. We could even put a date that we plan to have the item completed. I know we can't do everything at one time, but we could plan to do something about any item that we think is a priority."

The third step is to plan how we can best prevent or control any hazards found. They suggest each family decide how to enclose, lock-up, and/or eliminate any hazards found, especially the hazards that cause the majority of farm-related injuries and deaths (drowning, falling down hay holes and falling off equipment or exposure to chemicals).

<u>The fourth step</u> is to make the changes to control the priority hazards. They suggest that families can get together and help each other to make the needed changes (many hands make the work go faster). They also suggest taking time to have some fun after the work is completed.

Jason said, "After each item on the checklist, there is a yes, no, or do first column so we can make a check mark in the appropriate columns when we take our hazard walk-about. I would have a half hour tomorrow to do a walk-about and complete this list. Can you help?" Linda said, "I would have time right after lunch tomorrow."

<u>Farm safety Walkabout Checklist</u>

Hazard Area	Items to Check for Safety	Yes	No	Do First
Emergency	Emergency numbers posted at the phone			
First Aid	Fire Extinguisher in barn, house, tractors/machinery			
Fire	First Aid kit/supplies in main buildings (house, workshop, barn, etc)			
	Smoke detectors/carbon monoxide detectors in house/farm buildings			
	Family members take CPR and first aid training			
Other				
Farm/Yard	Assigned play areas with fence			
	Protection from enclosed spaces-cisterns, wells			
	Grain bins away from electrical hazards			
	Ponds are fenced			
	Manure pit is fenced			
Other				
Tractors	Roll Over Protective Structures (ROPS) on all tractors			
Shields	All shields and guards (e.g. PTO) installed and work properly			
	Hearing protection in tractor supply box			
	Fire Extinguisher on tractor and working			
	Clean, undamaged, un-faded slow moving vehicle SMV emblem (Fannie flag) on all equipment that travels on the road			
Other	faded			
Pesticides	Chemicals stored safely in original containers			
	Liquids stored in plastic container on bottom shelf			
	Dry chemicals stored on top shelf			
	Lock on the door for pesticides on farm & garden chemicals			
	Danger sign or decal on door-"Danger Don't Play Here"			
	Chemical Spill kit with PPE on top			
	PPE stored in another area other than with chemicals			
	Fire Extinguisher plus water to flush skin/eyes available			
Other				
Farm	Hay holes have covers-board, grate, hatch covers, etc.			
Buildings	Stairs are kept clean and free of clutter			
	Aisles, ladders and floors are uncluttered			
	Silo has ladder 7 feet above ground			
	Workshop is clean & door kept shut			
	Farm fuel pumps locked, protected from extreme temperature			
Other				
Animal	Gates are attached, fences and chutes are sturdy			
facilities	Children can feed animals from outside the fence			
	Bulls are handled with extreme care –no children near pen			
Other				

Jason continued, “Linda, look at this list. The first area is emergency and first aid. We do have emergency numbers at the phone and we do have a fire extinguisher in the house and in the barn. I need to buy two small fire extinguishers to put on the tractor and skid loader and a big one for the workshop.” Linda said, “Do the ones we have all work?” Jason answered, “That is a good question and we will check on that when we do our walk-about tomorrow.”

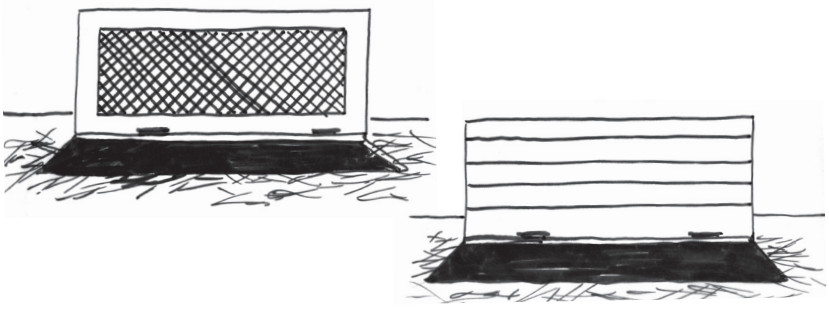
Linda said, “Next on the list is the farm/yard area. Well, we don’t have a pond but we do have the manure lagoon and there is a fence around it. We don’t have a fenced-in yard for the children to play safely. Maybe that is one of the first things we should consider doing to prevent injuries and exposure to chemicals.” Jason added, “I think you are right; that may be the most important item we need to take care of as soon as possible.”

Jason continued reading, “Well, we do have a roll-over protective structure (ROPS) on all the tractors since we just put one on our old Ford tractor through the new **Pennsylvania ROPS Rebate Program (call: 1-800-ROPSR4U)**. The ROPS rebate program provided 70% of the cost. We do use that tractor most of the time, and now it will be safer to drive. I didn’t realize until I was at the last extension dairy meeting that close to 50% of all farm-related fatalities here in Pennsylvania involve a tractor or PTO. The educator said that if a farmer overturns a ROPS protected tractor and they are wearing their seat belt, only 1 out of 100 is hurt. There **have not been any fatalities** with a ROPS equipped tractor when the operator is using the seat belt. The educator also explained that PTOs cause serious injuries; a tractor turning at 540 RPM will wrap loose clothing, shoe strings, or dangling materials up to 7 feet in just one second. That’s why it’s important to have shields on all PTOs and auger equipment. We will check all the shields tomorrow.”

Linda said, “Next on the list is pesticides. We do have a danger sign and a lock on your pesticide storage shed and also on the garden chemicals.” Jason added, “I keep all the pesticides in their original containers; dry chemicals are on the top shelves, and liquid containers are in a plastic bin on the bottom shelf. I do have my personal protective equipment (PPE) on top of my chemical spill kit. I always keep my PPE equipment in a separate cabinet away from my stored chemicals.”

Linda added, “The next section includes covered hay-holes. I am glad we made sure all our hay-holes were covered with a hinged solid board for the winter and a hinged wire/grate cover for the hot weather.

Hay-hole covers



You and I know of many children, or even adults, who have fallen down hay-holes resulting in severe head trauma or a farm-related fatality. I am glad that our neighbor (who is a nurse in our local emergency room) told us that falling down hay-holes is one of the major reasons children and adults living or working on a farm are seen in their emergency room and/or admitted to the hospital for care. She encouraged us to make sure we covered our hay-holes; we don’t want anyone to be injured.”

Jason yawned and said, “We can finish this list tomorrow when we take our walk-about. It’s getting late. Oh! By-the-way, why don’t you see if you can get a driver to take you shopping tomorrow and pick up my list of pesticides at the chemical dealer.” Linda said, “I already talked to Jim and he will be here early tomorrow. Good-night, we better get some sleep. Sounds like tomorrow will be very busy.”

Mark Your Answer on Your Answer Sheet

9. T. or F. There are 3 steps to manage farm hazards; identify potential hazards, decide what hazards found cause most injuries and/or fatalities and plan how to control major hazards found.

10. T. or F. It is a good idea to use a farm safety walk-about check list to identify hazards on a farm.

11. T. or F. Tractors and PTOs are involved in 20% of all farm-related deaths in Pennsylvania each year.

Pesticide Dealer and Transporting Pesticides

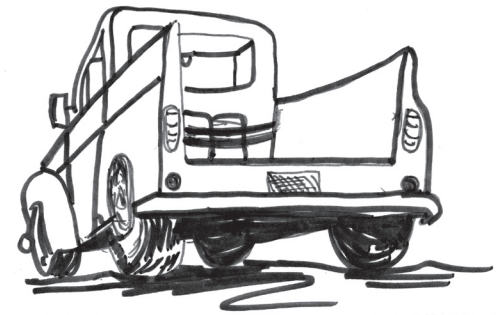
The next morning after breakfast, Linda’s driver arrived early to take her to town to buy groceries and Jason’s pesticides. She hurried out the door and after several hours Linda returned home. Jason hurried to the car to help her unload all the groceries and his pesticides. Jason wondered why he did not see any pesticides.

Linda explained, “The pesticide dealer told me that since you did not call in the order, he is not allowed to sell any restricted-use pesticides to me, since I do not have a Pesticide Certification license. The dealer did say he has a copy of your pesticide license on file, and in the future you can call in your order and then I can pick up the chemicals for you. He told me to make sure I have some identification along (like our check book with our name and address) the first time or two, so he can be sure I am purchasing the chemicals for you. For today, our driver said he has time to take you back to the store to get your pesticides, if you have time to go.”

So Jason quickly changed from his barn clothes to clean clothes, and soon he and the driver were off to the chemical dealer. Jason showed the chemical dealer his pesticide applicator’s license, and then he paid for the chemicals along with some needed rabbit and dog food. Jason asked the dealer why he could not sell the pesticides to his wife. The dealer said, “One of the new changes in Pennsylvania’s pesticide law requires any pesticide dealer to verify the identity and certification status of anyone making a purchase. After this you can call and give me the order. I have a copy of your license on file. Have your wife bring in some form of ID (like your check book) so I can verify that the order is for you. If pesticides are delivered to a business (example--via UPS), identification and a signature will now be required of the person receiving the chemicals. The chemicals cannot be left sitting by the house or put in the milk house.”

Before he left the store Jason made sure there was a label book with the chemicals. He knew he could ask the dealer for a Material Safety Data Sheet (MSDS). If there was an emergency spill during transport, he would need the information that both the chemical label and/or MSDS sheet have, such as: the name of the active ingredient, the EPA registration number of the chemical and some first aid measures. The MSDS can be a good source of information for medical providers or for calls to the Poison Center.

Secure pesticides and chemicals when transporting to prevent spills.



Jason used a bungee cord to secure the chemical bottles in the back of the truck. That way if the driver had to make a sudden stop, the chemicals would be secure. Jason also put the big bags of dog food and rabbit food in the back seat of the truck away from the chemicals. Finally, they were on their way home.

Jason took the pesticides he bought directly to his storage area and made sure the door was locked. It was already time for lunch, and then they were going to take their family walk-about as planned. The rest of the day would be spent doing field work, and Linda planned to get some sewing done.

Mark Your Answer on Your Answer Sheet

12. T. or F. The chemical dealer did not sell the pesticides to Linda because she did not have a Pennsylvania certified pesticide license.

13. T. or F. If Jason had called the dealer and ordered the pesticides, Linda could have picked up the chemicals.

14. T. or F. It was important for Jason to secure the pesticide chemicals with bungee cords to prevent a spill due to sudden stops and turns during transport.

15. T. or F. Jason should make sure that he has the label or an MSDS print-out for the pesticide he is hauling in the event there is an emergency.

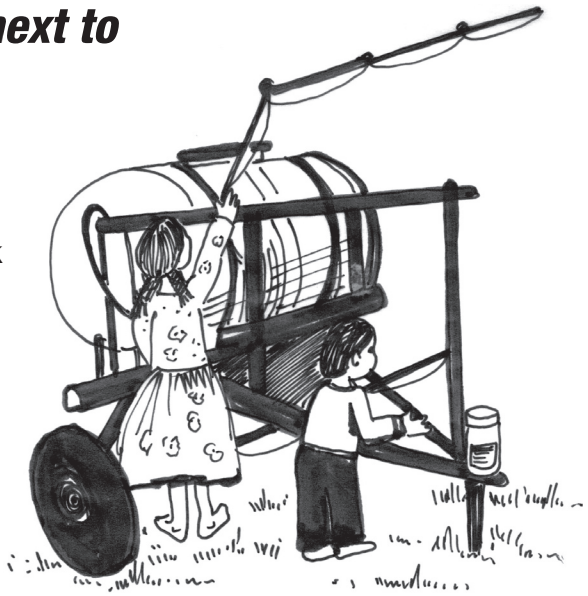
16. T. or F. If pesticides and/or chemicals are delivered via the mail to a farm, the driver can leave them in the milk house.

The Mason Jar and the Pesticide Scare

It was early Wednesday morning and Jason hurriedly milked so he could get started spraying. Linda helped finish the milking, fed the cows some silage and feed, and completed the barn work. Jason unlocked his chemical storage shed and poured out 8 ounces of the pesticide he needed for his sprayer in his Mason jar. He locked the shed and took the jar to the sprayer, putting it on the edge of the sprayer. Then he walked over to get the hose to fill the sprayer with water.

When he returned with the hose, he saw John and Susan playing on the sprayer and touching the sprayer nozzles. He thought about the pesticides in the Mason jar he had left sitting on the end of the sprayer.

John and Susan playing at the sprayer next to the Mason jar containing a pesticide.



Jason started walking faster because he was afraid that John and Susan would find the Mason jar containing his pesticide and think it was a drink. Jason often drank meadow tea from a Mason jar like that after supper.

As he got closer to the children, he quickly realized that all 8 ounces were still in the jar. Just to double check, Jason asked Susan if she or John had touched the jar. Susan told him, "No, we were just playing on the sprayer." Jason reached for their hands and said in Dutch, "Kumm." He realized that they might have gotten some pesticide residue on their hands and clothes. He realized that his children were too small to really understand how pesticides could hurt them. He did tell Susan and John as they were walking to the house, "**It is not ok to touch the nozzles or play on my sprayer**. You could get some of the chemical from my sprayer into your mouth, and it could make you feel sick. We will go in and get washed up." As Jason and the children were walking to the house, he realized how difficult it was to watch the children every minute. Now more than ever he realized that the enclosed play area would help keep the children safer from the cows, horses, machinery and from exposure to chemicals.

Jason and the children found Linda in the kitchen, and he told her how he found the children playing with the nozzles and the contaminated sprayer. He continued, "They probably got some of the chemical from the nozzles on their hands and clothes." Linda took off the children's clothes and washed their face, hands and arms with soap and water. After she put clean clothes on them, she found a few toys for them to play with on the kitchen floor. Jason said, "I will be back after I finish spraying this one tank."

Mark Your Answer on Your Answer Sheet

17. T. or F. Small children do not fully understand that exposure to chemicals and pesticides can make them sick or how easily chemicals can be absorbed through their skin.

18. T. or F. A small fenced-in yard could create a barrier to help protect small children from farm chemicals or pesticides, and keep them safe from machinery and animals as well.

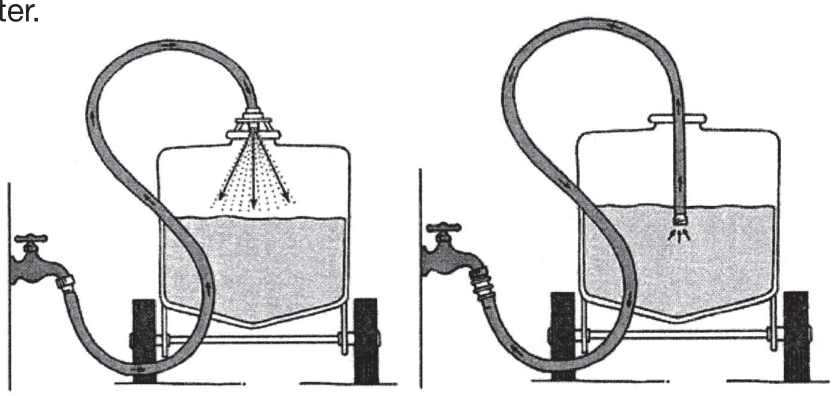
19. T. or F. Pesticide residue can stay on sprayer equipment and sprayer nozzles for several days or weeks, so keep children away from pesticide application equipment to prevent exposure to pesticides.

20. T. or F. Keep chemicals and pesticides in original containers. Never put chemicals into an empty Mason jar, water bottle, soda can, milk jug or food container. Someone might think it is a drink and be poisoned.

Filling the Sprayer

Jason returned to his sprayer and after putting in the pesticide, he put the hose in the top of the sprayer and began adding water. Jason stayed near the sprayer. He did not want it to overfill, and he knew if the hose was submerged in the water, the pesticides in the sprayer could siphon back into the well, contaminating the well water.

Do not allow the hose to be submerged to prevent pesticides from being siphoned into the well.



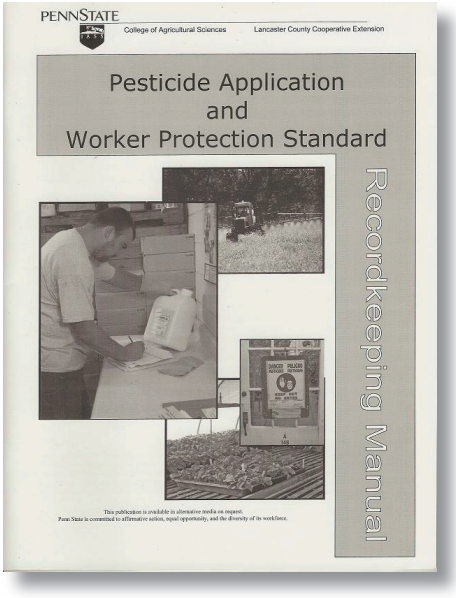
Jason was planning to purchase an anti-siphon device (check valve) the next time he went to his agricultural supply dealer since the device helps prevent the pesticide and water in the sprayer from being siphoned back into the well.

As the sprayer was filling, he thought about the article he just read in the '**Lancaster Farming**' newspaper about preventing water contamination with pesticides, fertilizers and nutrients. The article reminded farmers not to spray chemicals or spread manure any closer than 100 feet of a well or a stream. It also reminded farmers that allowing cows in a stream will contaminate the water and that they break down the stream bank which causes soil erosion. He had "fenced-out his cows" a long time ago and was planning to plant trees on both sides of the stream since trees help keep the stream cooler for insects and fish. The leaves decay and provide food for the insects which feed the fish. He liked to take his children fishing. He knew being careful not to spill pesticides at the mixing and loading site was most important because repeated spills over time is one of the major ways to contaminate ground water, including his own water.

Record Keeping is Important

Pesticide Record Keeping Log Book.

While the sprayer was still filling, Jason decided to record in his log book what pesticides he put in the sprayer. One of the new changes to the Pennsylvania pesticide law required growers to record their pesticide use within 24 hours. Jason knew if he had workers and was under the Worker Protection Standards (WPS), he would have to immediately record his pesticide use.

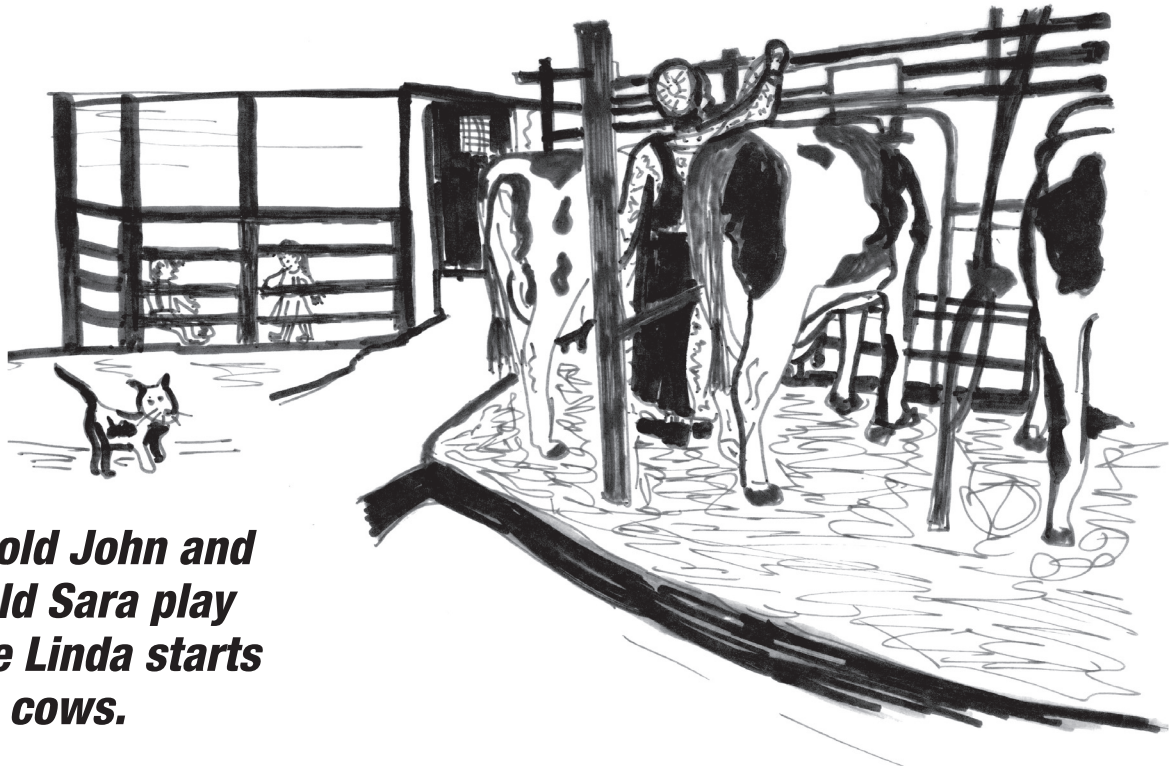


Jason had another good reason to complete the log book. Several months ago one of his neighbors (Paul) was found unconscious on the ground near his sprayer. His wife called 9-1-1 and the medical responders asked what chemical was in the sprayer. Since Paul had not recorded in his log book what pesticides he had put in the sprayer, his wife did not know. The medical responder told his wife it would have been very helpful for them to know the name and EPA registration number of the pesticide. They would have had a better idea what medicine to give him. Jason was glad to find out his neighbor came home after only a few days in the hospital, but he wondered if his stay in the hospital would have been shorter if they had immediately known what chemical he had in the sprayer.

Finally Jason's sprayer was filled and he finished recording the information in his pesticide log book. After spraying he planned to rake hay before lunch, and after lunch they would take their walk-about while the hay was drying. The afternoon would be spent baling hay with the help of his youngest brother.

Late for Milking

It was after 5 PM when Jason and his brother were finished baling the hay. Jason came into the barn and was very thankful that Linda had already started milking.



Three year old John and 18 month old Sara play safely while Linda starts milking the cows.

Jason said, "Sorry I'm so late but we had to fix the baler. We lost a few bolts and that put us behind." Linda replied, "It is ok, I was happy to get the milking started. The older children are finishing up feeding the heifers, and John and Sarah have been playing safely with their toys." Then she told him there was a roast beef sandwich and some milk waiting for him in the refrigerator. We will have some soup and dessert after milking. Jason said, "That sounds good; I will be right back. The sandwich will hold me over until milking is done."

Mark Your Answer on Your Answer Sheet

21. T. or F. It is important to stay near-by when filling a sprayer with water so that the hose does not fall beneath the surface of the water in the sprayer and siphon the pesticide in the sprayer back into the well.
22. T. or F. One piece of equipment that can help prevent pesticides from being siphoned back into the well is an anti-siphon device (check valve).
23. T. or F. Two reasons you should immediately record the pesticide you are mixing and loading include: completing the required PDA paper work within 24 hours and if you are found unconscious, medical responders will know what chemical or chemicals are in the sprayer.
24. T. or F. To prevent water contamination, do not mix pesticides within 25 feet of a well and do not spray any closer than 25 feet from wells and streams when spraying pesticides.

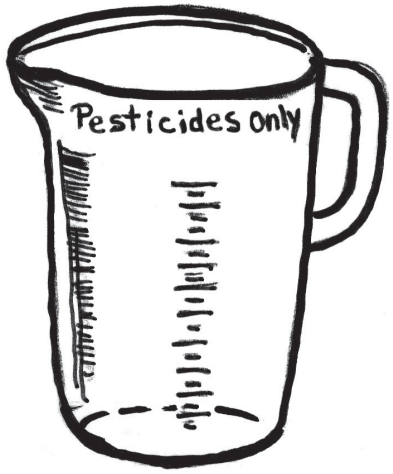
Late Supper Safety Discussion

After milking, Jason let the cows go out to pasture. He was glad that he could finally get to eat some of Linda's good vegetable soup. He especially liked the ice cream and shoo-fly pie. Jason thanked Linda for all her help in getting the milking started. He said, "There is just so much to get done while the weather is so nice. Some day our children will be older and we will have the help we need, but for now I am so glad you and my brother helped today."

Linda got him another cup of coffee as she finished the dishes. The children were quietly playing with their toys. When Linda finally sat down at the table with her coffee, Jason said, "Now, it's my turn to go over what happened and how we are going to prevent this from happening again." He described how he put the Mason jar with the pesticide on the edge of the sprayer as he had done many times, and then went to get the hose. He said, "When I came back with the hose and I saw John and Susan playing on the sprayer, I was really afraid that they might have thought the jar contained meadow tea. I was glad to see that all 8 oz of the pesticide was still in the jar."

Jason said, "From now on, I plan to use the big graduated pitcher I just purchased.

Jason's Pesticide-Use only graduated pitcher.



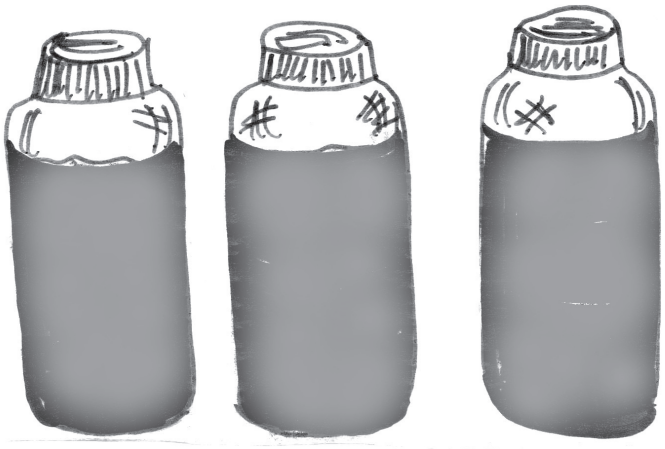
I marked it for **'pesticide use only'**. I decided never to put pesticides into any food or water container to take to load the sprayer or to leave any container of chemical unattended. I must always assume that one of the children could be near-by; they move so fast. I think that I

should drink my meadow tea from a regular drinking glass from now on. I don't want to confuse the children who may think it is okay to drink something found in a Mason jar. Mason jars are used to hold many foods (jelly, canned foods, and juices) that children are used to eating or drinking. If I put a chemical into a Mason jar, they may think the chemical is something they can drink; I don't want them exposed to chemicals."

Chemical Look-A-Likes and Poisonous Gases

Linda poured him another cup of coffee. She said, "I guess we both are learning a lot about chemicals. Last week at Sisters' Day safety training, the educator had three different blue liquids in three bottles. One was blue Kool-aid, one was blue window washer fluid and one was a blue disinfectant cleaner. We had to tell the educator which one we thought was the drink. Most of us at the training could not tell which one was the drink; almost all of us picked one of the chemicals."

The three bottles looked so much alike, we were not sure which one was the drink.

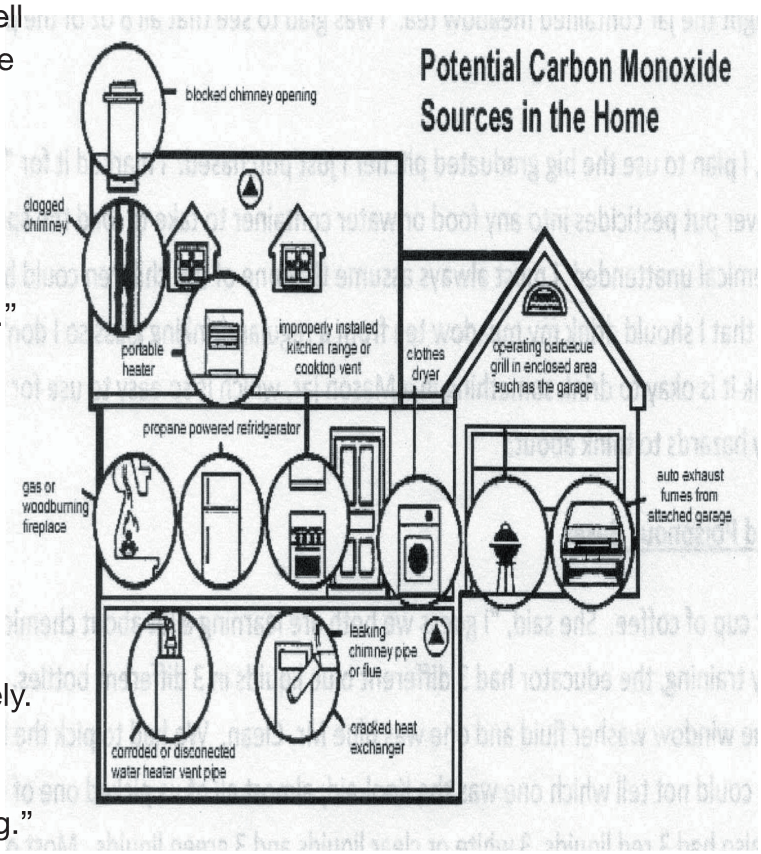


The educator also had three red liquids (a red drink, red cough medication, and red lamp oil). Most of us picked the lamp oil, not the safe drink. The three clear liquids (water, witch hazel, and rubbing alcohol) looked alike and most of us were not able to identify the bottle of water; some picked the witch hazel and a few thought it was the rubbing alcohol. This hands-on experience showed me that you cannot tell by looking at a bottle or container, what's inside. Only a bottle or can that has never been opened and is properly sealed is safe to drink.

The educator told us, "Children recognize the bottles they enjoyed drinking from previously (water bottle, soda bottle, soda can, food containers, Gatorade bottle or Mason jars) and many chemicals put in empty bottles/containers look similar in color to the good-tasting drinks."

Children recognize the bottles they enjoyed drinking from

The educator stressed, “You do not want to smell or drink a sip of a liquid from an unmarked bottle to try to identify the substance because it only takes a small amount of some chemicals to cause harm. A small amount of antifreeze or gasoline can cause serious damage and/or could be fatal; that is why it is so important to keep all chemicals in their original containers.”



Linda added, “The educator also talked about gases that can poison a child, or adult or the whole family. She gave us this fact sheet about Carbon Monoxide (C0). The fact sheet says that carbon monoxide is an invisible, odorless gas that is created when fuels (gasoline, wood, coal, natural gas, propane gas, oil, and methane) burn incompletely. Every year over 480 lives are lost and 15,000 persons end up going to the emergency room for treatment due to carbon monoxide poisoning.”

Carbon Monoxide has no odor and is invisible.

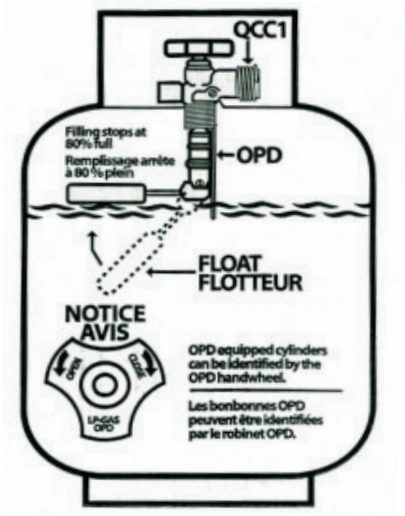
http://www.firesafetycouncil.com/english/pubsafet/co.htm

Jason added, “Carbon monoxide can be produced by machinery, generators, or vehicles that are running in an area that is not well ventilated like a garage, workshop, or shed. It’s also important to make sure refrigerators, hot water heaters, and stoves (coal, wood, gas and propane) are working properly so they do not produce carbon monoxide gas.”

Linda said, “It says here that when someone is exposed to carbon monoxide gas, they may complain of nausea, headaches, and feeling sleepy (just like when you have the flu) only without fever. The educator recommended that everyone put a carbon monoxide detector in the hallway near the bedrooms or sleeping areas. I am glad you did install one near our bedroom. I never realized the dangers of this poisonous gas.”

“What else did you learn at Sisters’ Day?” asked Jason. Linda said, “We talked about propane gas and how to use propane safely. This fact sheet says that over 14 million families use propane to cook, heat, grill foods, and to run machinery like generators, grain dryers, and farm equipment like the lift trucks. The educator mentioned that we should check all propane-powered stoves and machines to prevent carbon monoxide poisoning and never store propane tanks inside the house.”

An Overfilling Prevention Device (OPD) shuts off gas after 80% capacity.



An Overfilling Prevention Device (OPD) is a safety device built in the filling valve of a propane cylinder. The OPD device shuts off the flow of gas to a cylinder after 80% capacity has been reached. This will limit the potential for release of gas when the cylinder is heated, averting a fire or possible injury. As of April 1, 2002, OPDs were required on all propane cylinders between 4 and 40 pounds propane capacity. Propane cylinders with OPDs can be identified by a triangular hand-wheel. http://www.propane101.com/opdcylindervalves.htm

Jason added, "My dad said that it is important to **never fill a tank more than 15 lbs**. An overfilled propane tank brought from the cold outside into a warm room will cause the gas to expand, and the gas will escape via the release valve found on the top of the bottle. Propane gas is heavier than air and will go to the lowest level or the floor. If the cold propane gas connects with a pilot light (located at the bottom of a gas hot water heater or refrigerator) or someone strikes a match or lights a lighter, there could be an explosion and fire."

Linda added, "The educator told us that it is good if we teach our children to recognize the smell of escaping propane (rotten eggs) and to get out of the building immediately. She said we should call the gas dealer or call 9-1-1 from a neighbor's phones (not a phone in the building) because any electric switch can have a small electrical arc that can cause an explosion."

Jason asked, "What other fact sheets did you get?" Linda said, "Here is one about the little button batteries and how dangerous it can be if a child swallows them. It says that each year in the United States, more than 3,500 people of all ages swallow miniature disc or "button" batteries. Small batteries are used to power small watches, tiny flashlights, and hearing aids. Children under 4 years old are at greater risk. Sometimes the batteries get stuck which causes tissue damage because an electrical current can form (alkaline chemical) around the outside of the battery. Within two hours the chemical reaction can burn a hole in the esophagus and/or the stomach. When a child swallows a battery, it is not possible to know if it will pass through or become lodged in their stomach or intestines. They advise parents not to give a child who swallowed a button battery anything to eat or drink. It is best to call the poison center (1-800-222-1222) or take the person to an emergency room immediately to determine if the battery is lodged in the esophagus or stomach."

Jason added, "I am glad we are careful to keep coins, hard candy, pins, marbles, and small objects up out of our children's reach but I never thought about small batteries. Since Dad uses them in his hearing aids, we should tell him and others about the dangers of leaving them within easy reach of children. We can't leave our batteries lying around." Linda added, "Don't worry, after the program I put them up in our locked cabinet."

Jason said, "Well, sounds like you learned a lot. However, I need some sleep; I will soon be asleep here at the kitchen table." With that they gathered up the children and headed up the stairs.

Mark Your Answer on Your Answer Sheet

25. T. or F. It is ok to put a small amount of window washer fluid into another container if you put a note on the bottle indicating what is in the bottle.

26. T. or F. The symptoms of carbon monoxide poisoning do not affect everyone at the same time. Some get sick immediately and others will be affected many hours later.

27. T. or F. Propane gas will escape through the release valve of an overfilled gas tank if the gas tank is brought from the cold outside into a warm room.

28. T. or F. Propane gas released into a room will rise to the ceiling (much as smoke does) away from the pilot lights of gas refrigerators and hot water heaters.

29. T. or F. Small batteries can easily be swallowed by a child, and if the battery gets "lodged or stuck", it can burn a hole into the esophagus or stomach.

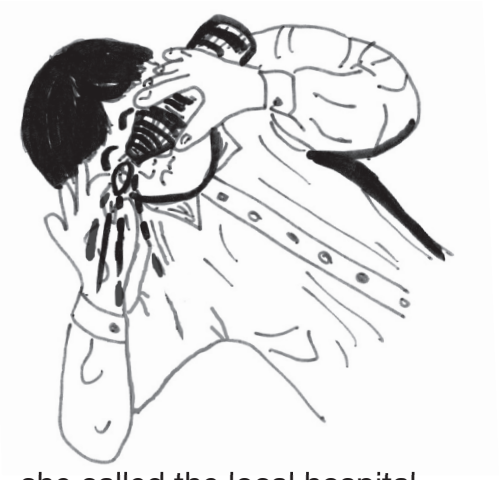
Jason's Eyes

It was early Thursday morning. Jason had gotten an early start spraying corn and he was almost finished spraying when several of the nozzles stopped working. He stopped the tractor and went back to check what was wrong. He put on his chemical resistant gloves. He unscrewed one of the nozzles, when suddenly some of the chemical squirted right into his face and eyes.

Suddenly the chemical splashed into Jason's eyes.

His eyes burned and his vision was blurry for a few seconds. Jason flushed his eyes using the water he carried along in a water bottle. He knew that most chemical exposure (97%) is through the skin, but he also knew that chemicals splashed into eyes are quickly absorbed as well. He realized that chemicals splashed into the eyes can burn eye tissue like the cornea. After Jason flushed his eyes with a bottle of water in the field, he hurried back to the barn.

Jason flushed his eyes with the water he kept with him on the sprayer.



He ran into the house and told Linda what happened as he got into the shower to continue flushing his eyes. After another 10 or 15 minutes, he put on some clean clothes. His eyes felt better but they really burned. He and Linda decided that he needed to see their local eye doctor, to check if his eyes were danaged.

Linda called the eye doctor and since he was not in the office, she called the local hospital emergency room. She was told to have him come in immediately and to bring along the label of the chemical. Linda telephoned the next door neighbor, and he came quickly to take Jason to the emergency room.

Jason returned in an hour and told Linda that his eyes were very irritated but there was no permanent damage. "The doctor prescribed some eye drops to help the irritation and pain, and to prevent an infection. The doctor told me, that I did the right thing by flushing my eyes in the field. Flushing them immediately did decrease the amount of damage." Linda said, "I am glad you went to see the doctor; eyesight is important. What would we do if you could not see?"

Jason added, "I'm glad that I learned at one of the extension meetings how important it is to have water (a water cooler, a bottle of water, or eye wash solution) ready to flush off chemicals from skin and/or eyes when out in the field.

Keep water with you out in the field to flush off chemicals.

It takes too long to drive from the fields to the house and/or barn to flush the chemical off. The chemical can be absorbed and cause a lot of eye damage while driving back to the barn. I think using that bottle of water to immediately flush out my eyes decreased the tissue damage to my eyes. From now on I am going to keep at least a 32 ounce bottle of water on the tractor."

He added, "You know, I should have taken time to use my safety goggles; I had them in my tool box, I was just in a hurry. Look how much time I wasted flushing out the chemical in the field, flushing them here at home and getting treatment at the hospital. I could have saved myself pain, valuable time, and money if I only had taken a few more seconds to put on my safety goggles."

Mark Your Answer on Your Answer Sheet

30. T. or F. A water cooler, bottle of water, or eye wash solution is a cheap but important safety first-aid tool to take on the equipment when spraying pesticides.

31. T. or F. 97% of all pesticide exposures are dermal, meaning absorbed through the skin.

32. T. or F. Pesticides are absorbed through our skin, like the antibiotic medicines in antibiotic ointments used to heal cuts and scrapes.

Planning to Prevent Future Chemical Exposures

Jason and Linda went to bed early that night. The past few days were tiring and the children had fallen asleep early. They both were very thankful that John's lips were healing and Jason's eyes were better. Most of all they were glad Jason did not have any loss of vision.

Linda said, "Jason, I am glad our children are all safe. I realize now how many potential hazards (chemicals, fuels, animals, and machinery) are on a farm that can cause injuries and/or fatalities. It is so difficult for me to keep an eye on all the children, especially 3-year old John and 18-month old Sarah, when there is so much work to be done."

Jason said, "I feel the same way. One of the first priorities for us is to have a fenced-in area where the children can play safely. How about we put a fence around the swing set and sand box area? The swing set is right outside the kitchen window, and that way you could see them easily to make sure they are safe."

Linda said, "Isn't it going to cost a lot of money?" Jason thought and then said, "We will fence in only a small area of the yard which will keep the cost down. Besides, just one injury or poisoning incident that sends one of the children to the hospital will cost far more in money and/or pain than posts and rails for a fence. I know it will be well worth the money, time and effort."

Jason continued, "My dad called yesterday and we talked about creating a play area. He offered to come on Saturday with the needed fence posts and posthole digger. We can spend the afternoon digging the holes and putting up the fence. My three brothers are planning to come even earlier on Saturday to install the new poly board barrier around the dairy chemicals. Mom is making her good apple pie and homemade vegetable soup and we can all have supper together." Linda said, "That will be great. I will make my corn bread and some cold meadow tea."

Jason said to Linda, "The last few days have been difficult, and I am glad that we are all safe and healthy. I now realize that chemical safety is very important and that we can make some small changes that will help prevent and/or decrease injuries to our family as well as any of our visitors."

Linda added, “I’m thankful your dad, mother, and brothers live so close and they are willing to help us make our home and farm safer for our children and visitors. The new barrier in the milk house and the fenced-in play area will be wonderful and will help keep Susan, John, and Sarah safer from the big animals, machinery, and the chemicals. I can’t wait until Saturday comes. Well, sleep well. Tomorrow will be a sunny day and we need to get a lot done, especially if we are going to be so busy on Saturday.”

Installing the Milk House Chemical Barrier and Fenced-In Yard

The whole family was up early Saturday. Jason was only part way finished milking when his three brothers (Paul, Mark, and John) arrived. They were excited to get started installing the milk house chemical barrier. Jason had gotten the 30 X 60 inch white poly board, hinges, and pull-pin yesterday. He also had gathered some of the tools he knew they were going to need. They quickly got started.

Just as Jason was finished milking, his dad (Daniel) and his mom (Mary) arrived. Mary took into the house the soup and food she brought along. Jason told his mother that Linda would be right in; she was finishing cleaning the pipeline equipment.

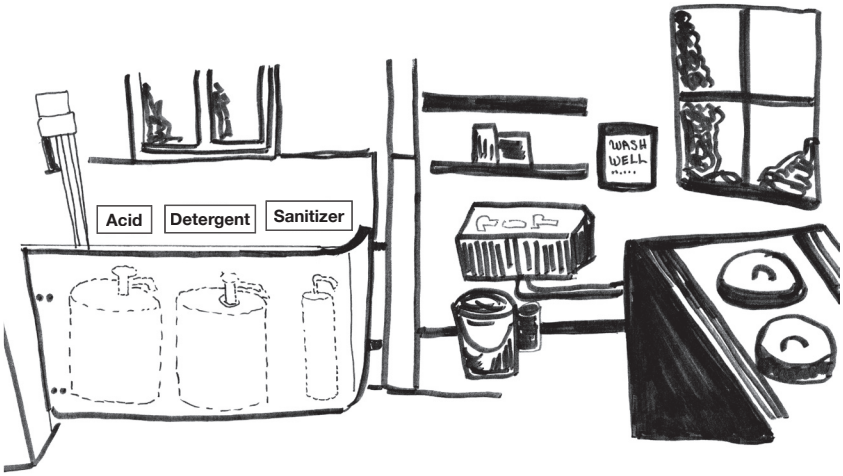
Jason and his dad went to the yard near the kitchen where they planned to install the fence. They talked about where the fence should go as the older children helped carry in the fence posts. The older children left to finish some chores but said they would be back later to help.

Jason drove the tractor into the yard so they could use the PTO to run the post-hole digger. He told the children that they would have to stay in the house until they were finished digging the holes and had the posts in place. Linda and Mary would take turns supervising the small children to make sure they did not go near the spinning PTO. Linda said, “The children are always curious about how the machinery works. They want to get too close to the spinning equipment. I realize they cannot fully comprehend how quickly their clothes or a hand could be entangled in the PTO. I am glad you are here to help me keep them busy.”

The forenoon went into the early afternoon and the milk house chemical barrier was well on the way to being installed. Jason and his dad had all the holes dug and were putting in the posts. So, they decided to sit down at the picnic table to have their soup, homemade bread, and pie with ice cream. The children and family enjoyed having a meal together. After they all were filled up, they got back to work. The rest of the afternoon went fast and soon it was time for Jason to start milking. His dad and brothers continued working on the fence and milk house barrier.

It was early evening before the work was all completed. The children started their chores while Mary finished the work in the kitchen. Jason was finished milking and Linda just finished cleaning the equipment. Daniel said, “I guess it is time to go home. Do you need help with packing up those tools?”

Jason looked at the new chemical barrier and said, “Linda this was a good idea. The children really can’t see the chemical barrels and we can easily reach over the top. Thank you, everyone. Now let’s go see the new play area.”



New milk house chemical barrier was installed.

They all walked to the house to see the fenced-in play area. The children were playing inside the fence.

Daniel turned around and said, “This was a worthwhile day. The new chemical barrier is up and the children are playing and having a good time in a safe area. I am glad I could help.” Jason added, “Thanks so much. We could not have done this without all your help. Together we made the changes needed to control two of our priority hazards that could have caused our children and/or a visitor to be poisoned or severely injured. Well! Thanks again and have a safe trip home and we will see you tomorrow in church.”

Answers to the Dairy Farm Chemical Safety Simulation

1. **T. or F. Exposure to pesticides and chemicals occurs to animals, adults, and children through eyes, skin, lungs (breathing in a chemical) and mouth (Ingesting) by drinking or eating a chemical or pesticide.**

*True--The four routes of exposure are **dermal** (any covered or uncovered skin, **eyes** (direct splash or contact with hands, **inhalation** (carried in with the air, especially fine dusts and mists), and **oral** (taken into mouth or lips) which most often occurs when pesticides have been taken from original containers and put in unlabeled bottles or food containers.*

Every 15 seconds, a Poison Control Center somewhere in the U.S. gets a call. There are approximately 2 million poison exposures in the United States every year–57% are among children under the age of six and approximately 30 children die each year.

2. **T. or F. It was a good idea to put the cup of pipeline cleaner on the top shelf in the milk house before leaving to answer the phone.**

False–Putting the chemical on the top shelf in the milk house was better than leaving the cup of chemical on the sink. However, children can push a chair or stool and be able to reach the cup of chemical on a shelf. It only takes a moment for a small child to find and swallow something that is poisonous. Many children are poisoned because of minor distractions like the telephone, doorbell, or something cooking on the stove. A child can swallow a chemical in one second or the time it takes to answer the phone or open the door–never leave a chemical unattended.

3. **T. or F. If someone is exposed to a poison (and is awake and talking, not unconscious), take the bottle or label of the product to the phone and call the poison center (1-800-222-1222) before giving the person anything to drink.**

True–Sometimes people think the best thing to do is have the person drink a lot so that they will vomit up the chemical but it is important to call the poison center before giving the person a drink; some chemicals when vomited cause lung damage (petroleum products) and/or cause more tissue damage if vomited.

4. **T. or F. It is important to tell the poison center the name of the chemical, active ingredient, age and weight of the person exposed and answer any questions they might have.**

True–According to Dr. Muller (The Children's Hospital of Philadelphia), the 1-800-222-1222 phone number is a national toll-free number that will automatically route your call to your local Poison Control Center 24 hours a day. It is important to have the label of the toxic substance in hand and call the poison center before following the directions on the label because the instructions can be ineffective sometimes. Tell the poison control person the age, weight, health condition of the child or adult. It is important to tell them how the person was exposed (swallowed, inhaled, absorbed by skin or eye), and when the person swallowed or inhaled the chemical.

5. **T or F. A chemical can burn your skin resulting in a first, second, or third degree burn much like scalding water burns.**

True–A chemical can cause a burn to the skin, eyes, or if swallowed, to the throat, food tube, or stomach. A first degree burn is much like a sun burn. A second degree burn means the second layer of tissue was damaged and will have blisters. A third degree burn will look white or black and the burn has damaged the third layer of tissue. Any 2nd or 3rd degree burn (especially if it is a large area or involves feet, face, eyes, or hands) should be seen by a doctor or an emergency room physician.

6. T. or F. After there is any type of injury, it is important to take a little time to talk about what happened and how to prevent that from happening again.

True–It is a good idea to take time after an injury to think about what and how the incident happened. It is extremely important to help prevent the same incident from injuring someone else. Many work places do take time to discuss how someone was injured, and they think of ways to prevent a similar incident or injury.

7. T or F. It is easy to forget to turn the pipeline cleaner pump tight, or sometimes you think you turned it tight but did not.

True–The pump can be turned tight which will help to prevent exposure to children, but sometimes a person forgets to shut it or thinks they twisted it shut but it was not completely tight. It is safer to put a milk house chemical high out of reach or lock it in a cabinet or put a barrier around the container as Jason and Linda did in the story to prevent any child from access to the chemical.

8. T. or F. Children have the maturity to understand what we tell them and can follow all the directions they are given by their parents.

False–When assigning tasks to children, it is best to consider the child's age, maturity level, attention span, and their physical size. Every child will be different, based on their own level of development, judgment and maturity. According to Ellen Abend and Eric Hallman (Cornell University) in their article "Safer Farm Environments for Children," there are several key points we should keep in mind. Children are unpredictable and prone to forget safety rules and lessons. Children live for today and may not understand the risks and consequences of their actions. Children are still going to behave like children no matter how well they have been taught. Their article ends with this thought: "It is critical to remember that safety on the farm is always an adult's responsibility."

Take time to look at "The North American Guidelines for Children's Agricultural Tasks" (NAGCAT) which is a great resource to help parents in assigning jobs to their children. The guidelines provide information about children 7-16 years of age (living and working on a farm) about what tasks and types of farm work are appropriate for their children. http://www.nagcat.org/nagcat/?page=nagcat_welcome

9. T. or F. There are 3 steps to manage farm hazards; identify potential hazards, decide what hazards found cause most injuries and/or fatalities and plan how to control major hazards found.

False–There are 4 steps to managing farm hazards:

1. *Identify potential hazards*
2. *Prioritize the hazards found (list those that cause the most farm-related injuries or fatalities)*
3. *Plan how to control your list of priority hazards*
4. *This is the most important step–**Make the changes to control the hazards you deemed a top priority***

10. T. or F. It is a good idea to use a farm safety walk-about check list to identify hazards on a farm.

True–A walk-about check list helps you be organized and guides your search for hazards. You can add additional concerns and prioritize your list if you have a check list. A checklist can help decrease and control farm-related incidents. It is designed to guide a farming family to spot and correct any safety concerns before someone is injured or there is a fatality. Preventing injuries and/or fatalities will decrease physical pain, disability times, medical costs, and save lives.

11. T. or F. Tractors and PTOs are involved in 20% of all farm-related deaths in Pennsylvania each year.

False–In Pennsylvania and other states, a tractor and/or a PTO is involved in about 50% of all farm-related deaths. Having a ROPS on a tractor and using a seat belt is one of the most important prevention behaviors that a farm using a tractor can do to prevent injuries and/or deaths when using a tractor.

12. T. or F. The chemical dealer did not sell the pesticides to Linda because she did not have a Pennsylvania certified pesticide license.

True–The chemical dealer was following Pennsylvania's new changes which state that pesticide dealers will need to verify the identity of private applicators along with their certification status when making a purchase by using two forms of identification.

13. T. or F. If Jason had called the dealer and ordered the pesticides, Linda could have picked up the chemicals.

True–If Jason had ordered the chemicals and told the dealer that Linda was coming to pick them up, Linda could have picked up the chemicals because he has Jason's license on record.

14. T. or F. It was important for Jason to secure the pesticide chemicals with bungee cords to prevent a spill due to sudden stops and turns during transport.

True–It is important to keep pesticides tied down or braced when transporting. Use tie-down straps or other materials to secure the load. The vehicle operator should understand the nature and hazards of the pesticides being transported. Transport pesticides in the back of a truck or in the trunk of a car or farm wagon. Keep food, livestock feed, seeds, veterinary supplies, and plant materials separate from pesticides because contamination may render them unusable if there is an emergency incident. Do not allow people, pets, or livestock to ride in a cargo area loaded with pesticides.

15. T. or F. Jason should make sure that he has the label or an MSDS print out for the pesticide he is hauling in the event there is an emergency.

True–Jason should make sure he has the label of any pesticide he purchased or ask for a copy of the MSDS sheet. The MSDS sheet or label will contain information about the active ingredient; the EPA registration number; what PPE protection is required; first aid information; and precautions needed for emergency personnel and emergency telephone numbers.

16. T. or F. If pesticides or chemicals are delivered via the mail to a farm, the driver can leave them in the milk house.

False--When pesticides are delivered to a farm or business, the person accepting the delivery will need to sign and have identification. They cannot let the box sit in a milk house or near the house.

17. T. or F. Small children do not fully understand that exposure to chemicals and pesticides can make them sick or how easily chemicals can be absorbed through their skin.

True–Dr. Muller (The Children's Hospital of Philadelphia) reports that children under the age of 5 are exploring and put everything in their mouth. Smelling, touching, and tasting is how they learn about the world. Medicine tablets look and sometimes taste like candy and antifreeze tastes sweet and often looks like a drink (Kool-aid or Gatorade) to a child. Small children do not realize that chemicals are easily absorbed through their skin similar to antibiotic ointments that heal cuts and scrapes.

18. T. or F. A small fenced-in yard could create a barrier to help protect small children from farm chemicals or pesticides, and keep them safe from machinery and animals as well.

True–A safe play area on a farm that is within sight and sound of a responsible adult with a physical barrier like a fence will help to provide children protection from hazards such as machinery, animals, and chemicals. A fenced yard or safe play area helps make supervision easier. There is no perfectly secure house/yard fence but a combination of a fenced-in yard and supervision will help reduce injuries or farm-related tragic events.

19. T. or F. Pesticide residue can stay on sprayer equipment and sprayer nozzles for several days or weeks, so keep children away from pesticide application equipment to prevent exposure to pesticides.

True–Pesticide residue can stay on sprayer equipment and the nozzles for a long time depending on the product used. So, it is always best to teach children not to climb, play, or handle any spray equipment to prevent them from being exposed to pesticide residues.

20. T. or F. Keep chemicals and pesticides in original containers. Never put chemicals into an empty Mason jar, water bottle, soda can, milk jug or food container. Someone might think it is a drink and be poisoned.

True–Keep chemicals in their original containers. It is very dangerous to put chemicals in a food or beverage container. Antifreeze looks like Gatorade, so storing antifreeze in a Gatorade bottle is extremely dangerous. Even one swallow could be fatal to a child.

To a child, a soda can or soda bottle means something to drink, so never store household chemicals (paint thinner, turpentine, and gasoline) in a water or food container. Storing pesticides in milk jugs is just asking for trouble and poses a hazard since many pesticides have a "milky-white" appearance.

21. T. or F. It is important to stay near-by when filling a sprayer with water so that the hose does not fall beneath the surface of the water in the sprayer and siphon the pesticide in the sprayer back into the well.

True–Keeping an eye on a spray tank the whole time when it is being filled will reduce the risk of accidents (siphoning back into the well) that could contaminate a well, groundwater or nearby streams.

22. T. or F. One piece of equipment that can help prevent pesticides from being siphoned back into the well is an anti-siphon device (check valve).

True–An anti-siphon device or check valve can help prevent pesticides from being siphoned into a well. A backflow prevention device provides an air gap between the water supply and the sprayer tank which avoids back siphoning of the pesticides directly into the well.

23. T. or F. Two reasons to immediately record the pesticide you are mixing and loading into a log book include: completing the required PDA paper work within 24 hours so everyone will know what chemical is in the sprayer if you are found unconscious.

True–Pennsylvania recently passed Pesticide Regulation changes which include: no longer does one need to document the formulation of the product applied, but records must be completed within 24 hours of the application. If the grower is following the Worker Protection Standard (WPS), each application must be logged immediately and posted at the central location on the list of pesticides used in the last 30 days.

It is safer for Jason to immediately log what pesticide is in the sprayer, because if he was found unconscious or unable to talk, the information (chemical name and EPA registration number) needed to provide emergency life-saving care would be in the log book.

24. T. or F. To prevent water contamination, do not mix pesticides within 25 feet of a well and do not spray any closer than 25 feet from wells and streams when spraying pesticides.

False–Pesticides should not be mixed any closer than 100 feet of a well and pesticide spraying should be done 100 feet from streams to prevent water contamination. Storage of pesticides should be at least 200 feet or more from the wellhead.

25. T. or F. It is ok to put a small amount of window washer fluid into another container if you put a note on the bottle indicating what is in the bottle.

False–It is never safe or a good idea to store or put a pesticide and/or chemical into a food or water container. Original containers list information that is needed in case of an exposure or poisoning. It is not easy to identify chemicals or medications that were transferred from the original container to an unlabeled container. Even if you put a note or put a new label on the container, small children cannot read but recognize the bottle as holding something they drank before. Some adults may not take time to read the hand written label or they may assume that what is in the bottle is safe to drink and be poisoned.

26. T. or F. The symptoms of carbon monoxide poisoning do not affect everyone at the same time. Some get sick immediately and others will be affected many hours later.

False–Carbon Monoxide (CO) is an odorless and a colorless gas that can cause sudden illness or death. Most times it is found in combustion fumes from cars, engines, stoves, lanterns, kerosene, propane, coal or wood stoves, gas ranges and natural gas. The symptoms are headache, dizziness, weakness, nausea, vomiting, chest pain, and confusion. The early symptoms are similar to the flu (but without the fever). On average about 170 people in the United States die each year.

27. T. or F. Propane gas will escape through the release valve of an overfilled gas tank if the gas tank is brought from the cold outside into a warm room.

True–Propane gas can expand with increases in temperature (taking a cold tank of gas from the outside into a warm house) especially if the tank is over filled. The safety relief valve allows the gas to escape to prevent pressure buildup to keep a propane tank from rupturing. Never overfill cylinders. It is best and safest to fill a twenty lb. container to only about 15 lbs. You will need to refill the container a little oftener, but preventing an explosion and fire is well worth not overfilling a tank.

28. T. or F. Propane gas released into a room will rise to the ceiling (much as smoke does) away from the pilot lights of gas refrigerators and hot water heaters.

False–Propane gas is heavier than air and if it escapes in a room, it will settle to the lowest level or floor. The pilot lights of gas refrigerators and hot water heaters are located near the bottom of the appliance. If propane gas is on the floor near a pilot light, you could have an explosion.

29. T. or F. Small batteries can easily be swallowed by a child, and if the battery gets "lodged or stuck", it can burn a hole into the esophagus or stomach.

True–Children under 4 years-old are at greater risk of swallowing "button batteries" since they put everything into their mouths. That is how they learn and explore. Each year more than 3,500 people of all ages do swallow small button batteries. The problem is if the battery gets lodged in the person's esophagus or stomach, an alkaline chemical is formed on the outside of the battery. The chemical burns a hole into the tissues. It is important to seek medical care immediately to check if the battery is able to pass through the stomach/intestines. The battery can cause a burn within 2 hours. The best thing to do is put small button batteries (used in small toys, hearing aids) up out of reach.

30. T. or F. A water cooler, bottle of water, or eye wash solution is a cheap but important safety first-aid tool to take on the equipment when spraying pesticides.

True–A jug of water, water in a cooler, or bottle of eye wash solution is an inexpensive method of having the water needed in the fields to flush chemicals that contaminate skin or eyes. It is best to come in and flush with water from the sink or get into the shower. Saline solution found at any drug store or many department stores is salt water (used by those wearing contact lenses). This solution is free of bacteria and is a great addition to add to a first aid kit for home, workshop, or in the field.

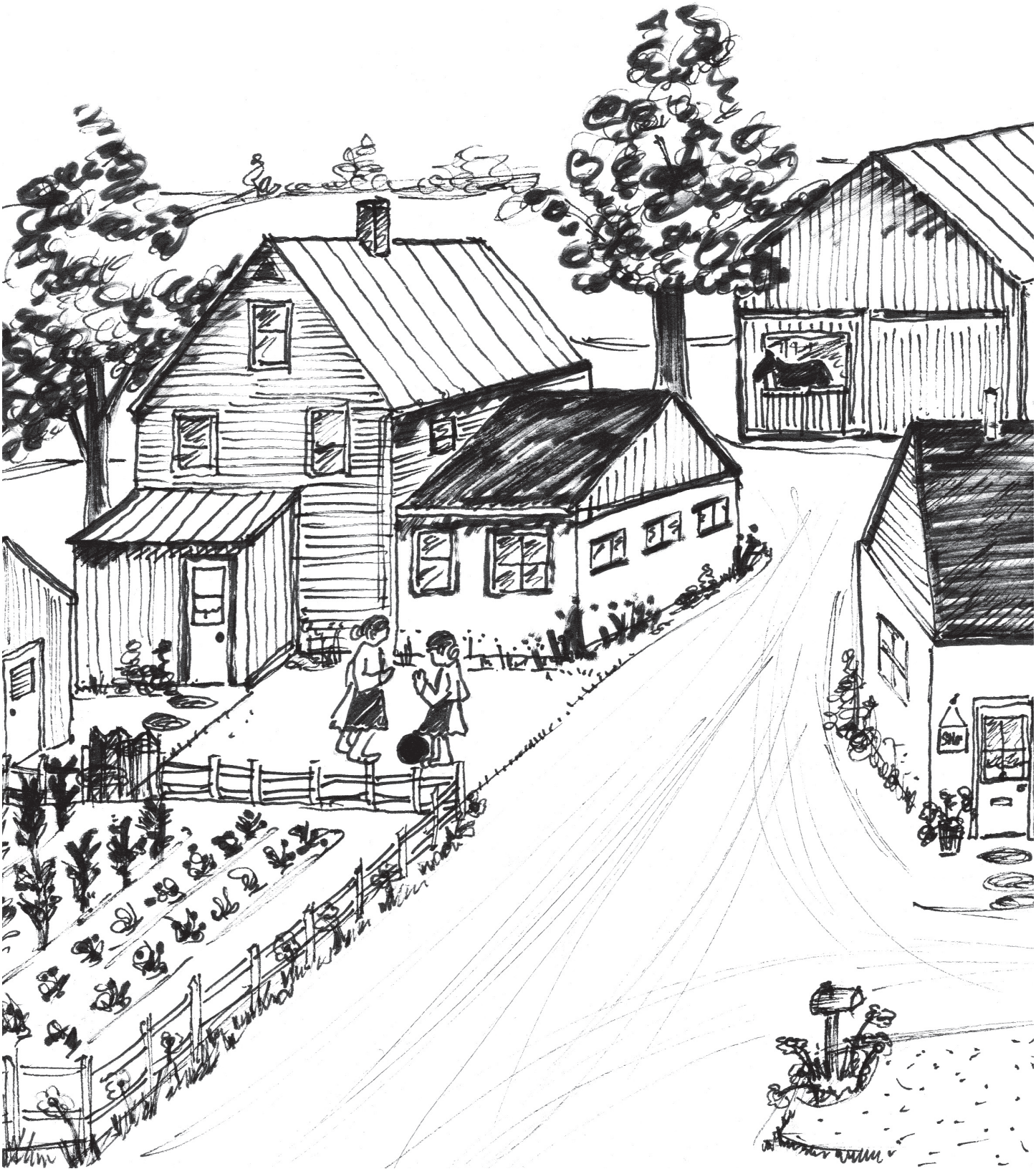
31. T. or F. 97% of all pesticide exposures are dermal, meaning absorbed through the skin.

True–The most common route of pesticide exposure is through the hands and forearms. Dermatitis or irritated/itchy skin is the most common reported symptom associated with exposure to pesticides. Pesticide formulations vary in their ability to be absorbed through the skin and emulsifiable concentrates are more readily absorbed than other formulations.

32. T. or F. Pesticides are absorbed through our skin, like the antibiotic medicines in antibiotic ointments used to heal cuts and scrapes.

True–Medications in ointments do get absorbed by our skin. A new method to give some medication is through the use of a "Transdermal Patch". A transdermal patch looks like a square band aid. It is a thin pad with an adhesive back and the patch contains the medicine. When it is time for the personís medication, the patch is put on the skin allowing the medication to slowly pass through the skin into the blood stream.

Home & Garden Chemical Safety Story



David and Melinda's Home

This is a story about a young Amish construction worker (David) who lives on a 10-acre lot near his father's farm with his young wife (Melinda) and their 4 children. The children are 2 months, 2, 4 and 6 years old. David works away from home for a construction firm 5 days a week and sometimes on Saturdays. Melinda makes wall hangings and quilts to sell. She has a big garden so she freezes and cans a lot of vegetables and fruits for winter. They live in a large two-story home and have a workshop, garden shed (to store garden chemicals and supplies), small barn for their sheep, and a horse stable for their two horses.

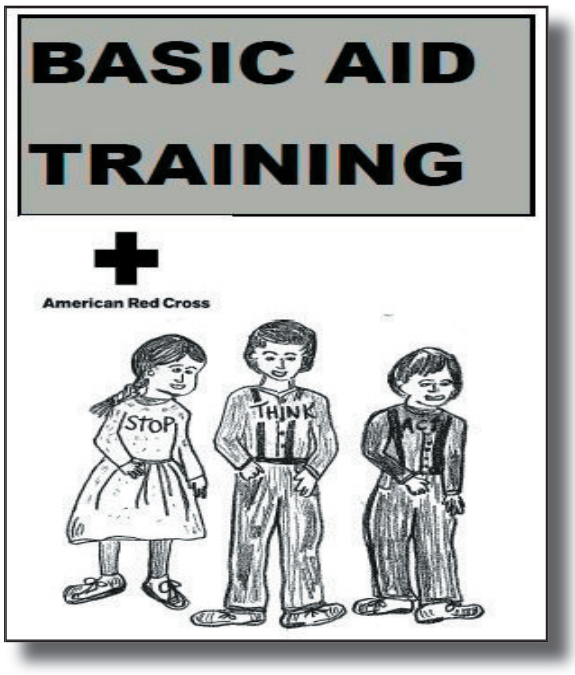
Sisters' Day Educational Program

Melinda was busy washing the breakfast dishes; she was in a hurry because today was a special day. Melinda's five sisters and her mother will be coming soon for "Sisters' Day". Once a month they get together to quilt, talk and have some lunch. The children love to play with their cousins. Everyone brings a potluck dish to share at lunch time; it is always fun to try new casseroles or desserts.

Today instead of quilting, Melinda invited an extension educator to come and provide educational training about farm and home safety including how to prevent exposure to chemicals and pesticides. Melinda thought it would be helpful to her, as well as all her sisters, because they all have young children.

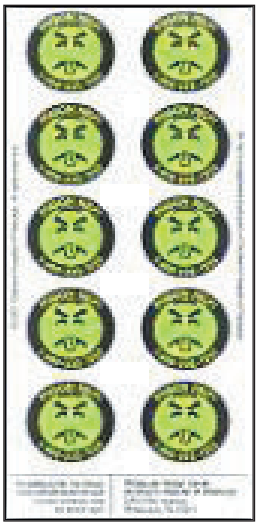
It was a few minutes before 9 AM when Melinda looked out her kitchen window and saw that the educator, her mother and most of her sisters had arrived. Melinda welcomed them in, and they all sat down in her living room. The children decided to play in the adjacent play room.

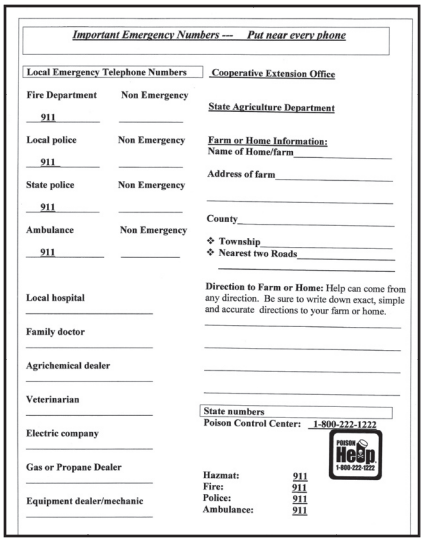
After introductions the educator began the program by giving each family a notebook filled with farm and home safety information, nutritional fact sheets and a CPR/first aid book.



Anabaptist CPR and First Aid Training booklet.

They also received Mr. Yuk stickers, two locks (one for the kitchen and one for the bathroom cabinet), and an "Emergency Phone Sheet" to put near their phone to make calling for help easier during an emergency.





Important Emergency Numbers --- Put near every phone

Local Emergency Telephone Numbers

Fire Department	911	Non Emergency
Local police	911	Non Emergency
State police	911	Non Emergency
Ambulance	911	Non Emergency

Local hospital

Family doctor

Agrichemical dealer

Veterinarian

Electric company

Gas or Propane Dealer

Equipment dealer/mechanic

Cooperative Extension Office

State Agriculture Department

Farm or Home Information:
Name of Home/farm

Address of farm

County

- Township
- Nearest two Roads

Direction to Farm or Home: Help can come from any direction. Be sure to write down exact, simple and accurate directions to your farm or home.

State numbers
Poison Control Center: 1-800-222-1222

Hazmat: 911
Fire: 911
Police: 911
Ambulance: 911

Mr. Yuck Stickers ***Cabinet Locks*** ***"Emergency Phone Sheet"***

Pests and Pesticides

The educator continued, "Today we will spend some time talking about pests and pesticides. Controlling pests in and around the farm, home and garden can be thought of as a never-ending problem. A pest is a living organism that injures, or causes damage to plants, humans, and animals. Pests also include animals like rats, mice and ticks. A pesticide is a substance used to repel, destroy, or kill a pest. Weeds and plants can also be considered pests.

There are many types of pesticides: insecticides, herbicides, fungicides and rodenticides. Many household products are pesticides. The most common pesticide products used around the home are: rat and mice poison, flea and tick products, mosquito and insect repellants, weed killers, products that kill mold and mildew, and disinfectants used in the kitchen, laundry and bathroom."

Acute and Chronic Exposure

When someone feels sick shortly after being exposed to a chemical, we call that an acute exposure. Acute means quick. Symptoms of an acute exposure could include: burning in the nose and throat, skin rashes, trouble breathing, dizziness and sweating.

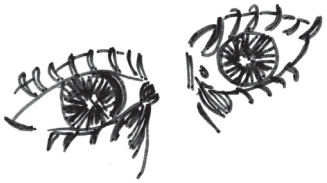
A chronic exposure is when someone is exposed to a low amount of toxic chemicals over an extended period of time. A person who is chronically exposed to chemicals may not show the effects of the exposure for months or years. The effects of chronic exposure include: cancer and kidney or liver damage.

Routes of Exposure

There are four ways people are exposed to a chemical. The four routes of exposure are: dermal (skin), inhalation (lungs), oral (mouth) and the eyes. Here is a poster I use when working with children to help them understand how chemicals get into our bodies. This poster helps children realize that a person can breathe a chemical into their lungs, drink or eat (ingest) a chemical, or a chemical can be absorbed into the body when it is splashed into their eyes or on their skin.

The four routes of exposure to chemicals.

Our Skin
Handling chemicals or coated seeds.



Our Eyes
Splashing chemcals.

The educator continued, "In fact 97% of all chemical exposure is through our skin." Did you ever think about how antibiotic ointments heal cuts and bruises? When you put the ointment on the cut, the antibiotic in the ointment is absorbed through your skin and that's a good thing.

Our Mouth
Not washing vegetables or fruits before eating.

Drinking a chemical by accident.

Our Nose
Breathing in a chemical.

Pesticides and chemicals also easily pass through your skin into your body like the antibiotic in the ointment. Therefore, if you splash a chemical on your skin, it is important to immediately flush with water for 15-20 minutes to prevent the chemical from being absorbed into your body. Wearing the recommended Personal Protective Equipment (PPE) (ex. chemical resistant gloves) is important to prevent exposure to chemicals. Anyone working with pesticides should follow the pesticide label for advice regarding what PPE to wear before applying the pesticide.

Flush Chemicals or Pesticides Immediately With Water

If you splash a chemical into your eyes, it is important to flush the chemical out as quickly as possible. Chemicals splashed into eyes are absorbed into the body and can seriously burn or damage eye tissue and your vision. You can greatly decrease the damage to your eyes by flushing 15-20 minutes with water just as you flush a chemical off your skin.

You can use the kitchen sink, a hose, a bottle of water, or eye solution (saline solution for contact lenses), or get into the shower. If the chemical was splashed into both eyes, you need to flush out both eyes. It is important that someone help the person (especially a child) hold open the eye lids (during flushing) so all the chemical is removed.

Flushing with water for 15-20 minutes helps prevent absorption into your body and/or eye damage.

If only one eye was splashed with the chemical, hold that eye lower (towards the sink or ground) and gently flush lukewarm water from the top of the affected eye (near the bridge of the nose) allowing the water to go into the sink, basin or on the ground. Try not to flush the chemical into the eye that did not get splashed with the chemical.

Milk House Cleaner Splashes into Amos's Eyes

One Amish farmer, who we will call Amos, was cleaning his milking equipment with a milk house chemical when suddenly some of the milk house chemical splashed into his eyes. He called his English neighbor Glenn (a local EMT and ambulance volunteer) to come and take him to the doctor several miles down the road. Glenn asked Amos what happened and why he needed to go to the doctor so fast. But Amos would only say "I will tell you when you get here."

Glenn arrived at Amos's house in just a few minutes and after realizing what had happened, Glenn asked Amos, "Did you flush out your eyes with water?" When Amos said, "No", Glenn helped him flush out his eyes at the kitchen sink, and then they went to the doctor.

Glenn helped to flush the chemical from Amos's Eyes.

After the examination the doctor told Amos it was good you flushed your eyes with water before coming in; there could have been a lot more damage. It took over 6 months of medical care before Amos's eyes were completely healed.

Read the Label

The educator continued, "It's important to always read the label of the chemical and to choose the product that will best control the pest."

The label will provide important information including:the active ingredient (which is part of the product that kills or controls the pest), how to mix the pesticide, what Personal Protective Equipment (PPE) to wear when applying the chemical, how to store and dispose of the chemical, and basic first aid instructions.

Mark Your Answer on Your Answer Sheet

1. T. or F. Symptoms of an acute exposure happen quickly, but someone who is chronically exposed may not show the effects for months or years.

2. T. or F. The four ways we can be exposed to a chemical are: dermal (skin), inhalation (lungs), oral (mouth) and the eyes.

3. T. or F. If someone spills a chemical on their skin or in their eyes, the first thing to do is flush for 15-20 minutes with water.

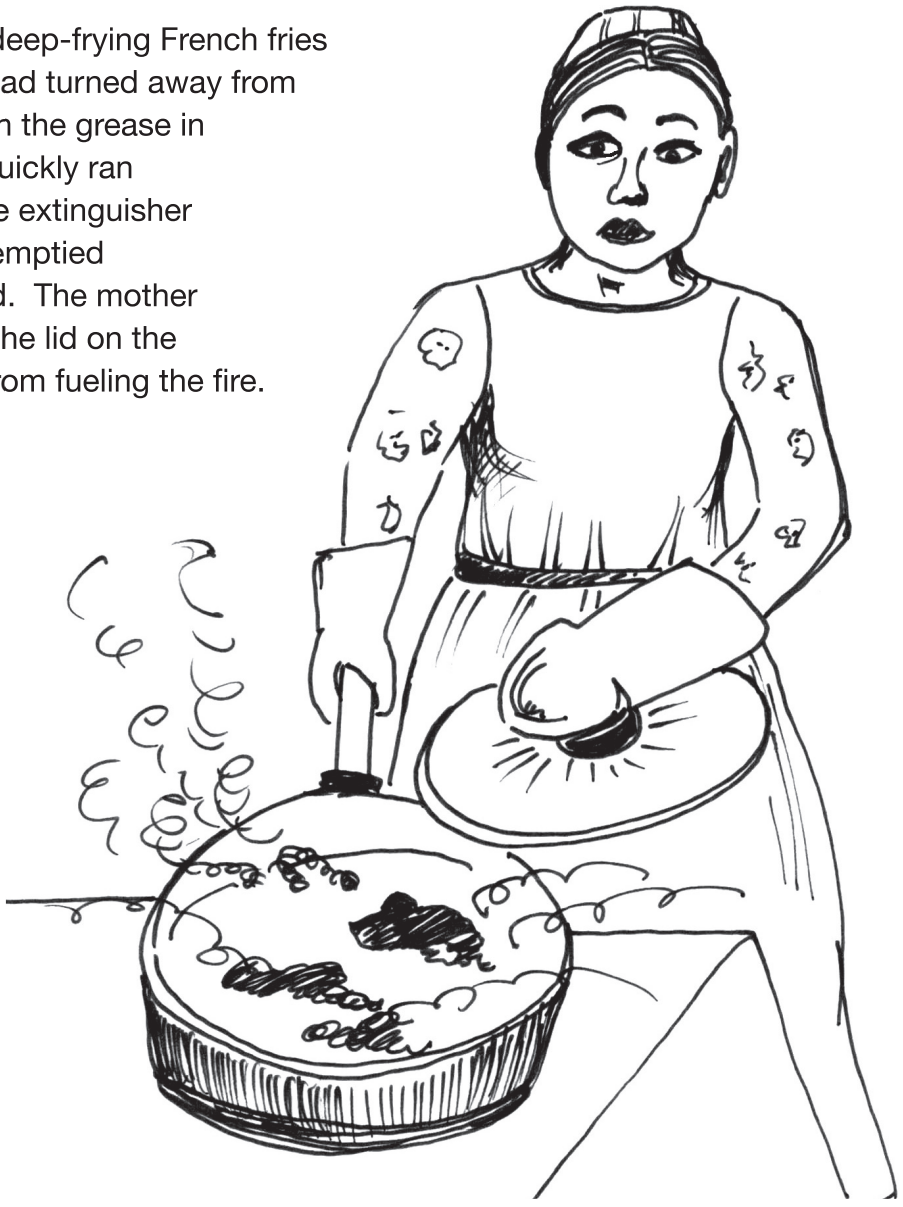
4. T. or F. Always read the label before using a product. The label will include information about: basic first aid instructions, the active ingredient, and what personal protective equipment or PPE to wear when using the product.

Make "What to Do" Plans Before an Emergency

Planning for potential emergencies is a form of insurance; you hope to never use it but if you do, you are glad you have it. An emergency is not the time to plan what to do. Rehearsing, even in one's thoughts, makes it easier to respond effectively rather than trying to sort things out in the midst of an emergency. Planning could be as easy as playing the "What if" game, and it helps everyone know what to do and what not to do in an emergency situation. Knowing how to respond to an emergency can save lives, reduce injuries, and reduce property loss.

Several weeks after the educator provided fire safety training for a home school association, one of the mothers (Mary) who took that training, saw her in a store and stopped to talk. She wanted to share what just happened to her best friend's sixteen-year-old daughter.

She said, "My friend's daughter was deep-frying French fries one day last week. The 16-year-old had turned away from the stove for only a few seconds when the grease in the kettle caught on fire. The youth quickly ran and got their fire extinguisher. The fire extinguisher was too small and even though they emptied the fire extinguisher, the fire continued. The mother finally took a lid and carefully placed the lid on the kettle to smother or prevent oxygen from fueling the fire.

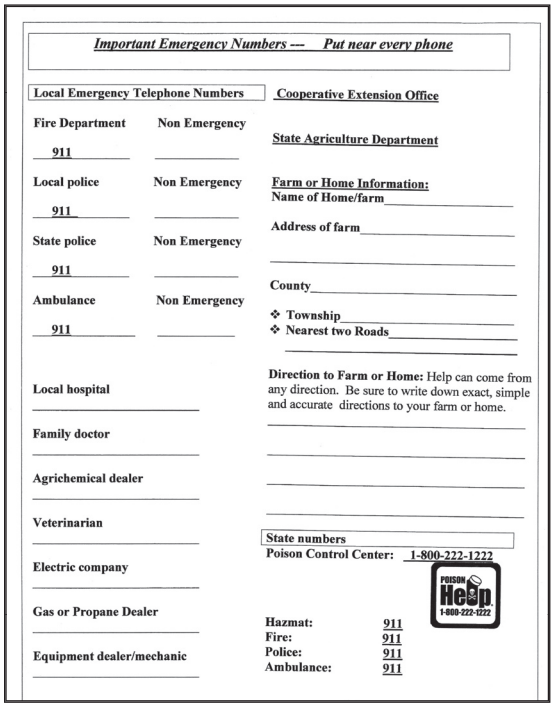


Mother putting a lid on the grease fire.

The fire was finally under control, but they were left with a lot of smoke damage and the stove was covered with the fire extinguisher chemical. The good news is they did not put water on the grease fire; that would have spread the flames and fire causing a lot more property damage."

Mary said, “This incident has taught me how quickly a fire can get out of control and how difficult it is to decide what to do during an emergency. Now I realize how important it is for everyone to have a fire and emergency plan. Making decisions is difficult during an emergency. Planning can save lives and lessen property loss.”

The educator continued, “Having a list of emergency numbers near your phone (such as the propane dealer or poison center) saves valuable time looking in the phone book and is the first step to take in preparing for emergencies.



Important Emergency Numbers --- Put near every phone

Local Emergency Telephone Numbers

	Fire Department	Non Emergency
	911	
	Local police	Non Emergency
	911	
	State police	Non Emergency
	911	
	Ambulance	Non Emergency
	911	

Local hospital

Family doctor

Agrichemical dealer

Veterinarian

Electric company

Gas or Propane Dealer

Equipment dealer/mechanic

Cooperative Extension Office

State Agriculture Department

Farm or Home Information:
Name of Home/farm
Address of farm
County
❖ Township
❖ Nearest two Roads

Direction to Farm or Home: Help can come from any direction. Be sure to write down exact, simple and accurate directions to your farm or home.

State numbers
Poison Control Center: 1-800-222-1222

Hazmat:	911
Fire:	911
Police:	911
Ambulance:	911

Prepare for emergencies by putting emergency phone numbers near your phone.

Having emergency information handy (directions, township/borough, closest road intersections) to the farm or home you are calling from makes it easier (especially for children and those who do not live at the residence) to provide the information needed by the 9-1-1 operator to quickly dispatch the emergency responders you need.”

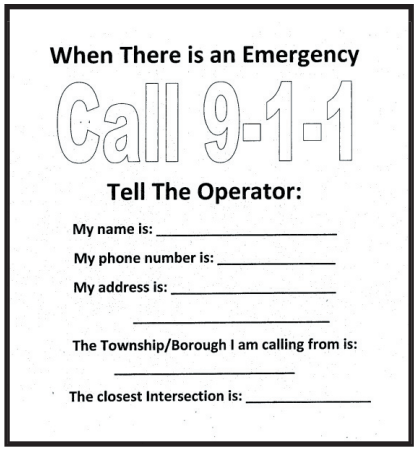
Call 9-1-1 When Someone is Unconscious

It is a good idea to teach children when and how to call 9-1-1. Tell children that when they are making an actual 9-1-1 call, be sure to answer all of the dispatcher’s questions and do not hang up until they tell you to do so. At the end of the program, everyone can use the 9-1-1 simulator and practice making an emergency call.

A Youth uses the 9-1-1 simulator to practice calling 9-1-1.

If you want to practice at home, you can have the children make a phone out of cardboard, and then pretend to dial 9-1-1. Someone should be the dispatcher and ask each child: what happened, what is your name, what is your address, what Township or Borough are you calling from, and what two roads are close to you?

Make a paper phone, and then practice answering the questions at home.

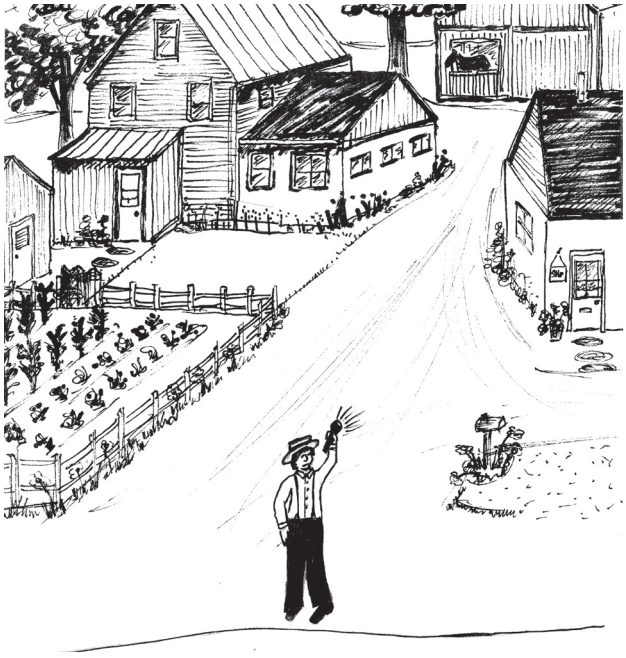


In an emergency situation, the first thing to do is make sure the scene is safe, before you rush into help someone. Whatever injured the victim could injure you and then there will be two or more victims. After you have checked to see that the scene is safe, then you can go check the victim. If you find someone who you think is unconscious (not talking and does not respond to your voice), tap them on the shoulder and ask them, "Are You Ok?" If they do not answer or you realize they are not breathing, immediately call 9-1-1 for medical help. The 9-1-1 dispatcher may ask you to describe what happened, how many are injured, and if anyone is providing first aid.

If the person does not talk and is not responding, call 9-1-1

Remember to send someone to the edge of the road, driveway, or end of your lane to alert the medical responders or fire truck to prevent them from driving past your lane or home.

Send someone to the end of the driveway or lane. Use a flashlight to flag down emergency responders.

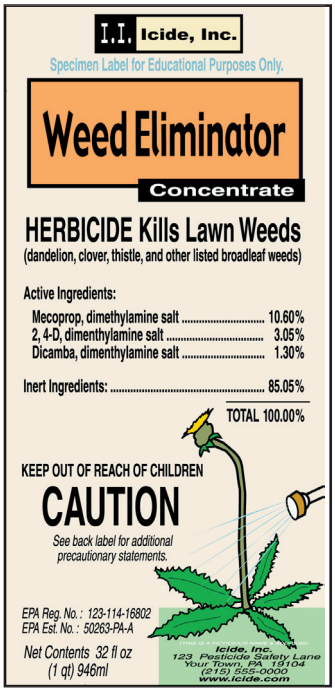


If they miss your driveway, it will take time for them to find a place they can turn around and come back. The time you save can decrease property damage or save someone's life. If the emergency is at night, take a flashlight and swing it to alert the rescue responders where you need them. You also can turn the porch light off and on.

The educator told us it was helpful for everyone to take a CPR class and that she could come back with mannequins to conduct a CPR and choking class. She then demonstrated some basic CPR and choking skills.

After the CPR demonstration the educator continued the program. The educator said, "If the unconscious person was exposed to a chemical or pesticide, show the medical responders the bottle or product you think caused the emergency. The label on the chemical bottle may have listed important information for the doctor or medical responders which will help them provide the appropriate medical care. We used a large poster of a pesticide label to find the name of the chemical, the active ingredient, the signal word, and the EPA registration number."

A sample chemical label.



What Information is on the Front of the Label?	What Other Information is on the Label?
• Brand Name: A unique name to advertise the product • Product Type: In general terms, what the pesticide will control • Ingredient Statement: Lists the common and/or chemical name and amount of each active ingredient and total amount of inert ingredients • Active Ingredient: The chemical that controls the pest • Signal Word: Indicates the relative acute toxicity of the product to humans and animals (this will be further explored in a later blog) • KEEP OUT OF THE REACH OF CHILDREN: Must appear above the signal word • EPA Registration Number: See "EPA Approval" in label shown above • EPA Establishment Number: The facility that produced the product • Manufacturer Name and Address: If you want more information, such as the MSDS (Material Safety Data Sheet), which has detailed toxicity information, chemical properties, and precautions needed for emergency personnel • Net Contents: The amount a full container holds	• Precautionary Statements: Information about possible hazards • Hazards to Humans and Domestic Animals: Potential hazards and how you can reduce them • Environmental Hazards: Information about potential to harm wildlife, fish, endangered plants and animals, wetlands, or water • Physical and Chemical Hazards: Describes any special fire, explosion, or chemical hazards • First Aid or Statement of Practical Treatment: Details on what to do if a poisoning occurs. Always call the National Poison Center Hotline (1-800-222-1222) for further medical instructions. Have the label with you if need to call the doctor or go to the hospital. • Directions for Use: Provides instructions on how to properly use the product for best results without harming yourself, others, and the environment. • Storage and Disposal: Information about storing the product and what to do with unused portions and the empty container. To dispose of the container, triple-rinse, puncture, and dispose according to local solid waste authority's requirements.

http://blog.pested.psu.edu/2010/05/03/label-basics/

http://blog.pested.psu.edu/2010/05/03/label-basics/

Mark Your Answer on Your Answer Sheet

5. T. or F. If someone **is found unconscious and is not awake or responding**, it is best to call 9-1-1.

6. T. or F. Medical responders do not really need to see the label of the chemical that caused someone to feel sick, because they know what medications to give when someone is exposed to a poison.

The Poison Center

If you find a child or adult who is **awake, talking and responding** but you think they were exposed to a chemical, pesticide or ate or drank more medication than the doctor prescribed, you should:

Call the Poison Center (PC) at 1-800-222-1222

The poison centers provide a free service that is open 24 hours a day to help with poisoning incidents and to provide poison information. Every 15 seconds one of the poison centers gets a call regarding a child who has swallowed a potentially poisonous substance.

The poison centers get about 4 million calls each year and over 150,000 of these calls concern household pesticides. **The most common exposures for children are ingesting household cleaning products, plants, medications and personal care products.** (http://www.epa.gov/pesticides/health/poisonprevention.htm).

According to the American Association of Poison Centers, children younger than 6 years old account for about half of all calls to the poison centers. These young children are “explorers” and they put most everything directly into their mouth. Even young children in the “crawling” stage can be poisoned since they are just the right height to find drain cleaners or other chemical cleaning products under the sink.

In Pennsylvania from 2000-2009, there were 16,904 persons hospitalized because of (accidental and non-accidental) poisoning incidents. The Southeast district (Berks, Bucks, Chester, Delaware, Lancaster, Montgomery, Philadelphia and Schuylkill counties) combined had 7,978 out of the 16,904 or almost half according to Dylan Ellis Statistical Analyst Bureau of Health Statistics and Research, Pennsylvania Department of Health.

Calling the Poison Center

Remember, "If a person was exposed to a pesticide, chemical, vitamins, over-the-counter medications, and/or prescription drugs but **is awake and talking** take the container or bottle to the phone and

Call the Poison Center at 1-800-222-1222.

POISON Help®
1-800-222-1222

The label may have first aid advice but **it is best to first call the poison center or doctor before giving the person anything to drink**. Some chemicals like milk house or pipeline cleaners are caustic (acids) and these chemicals can cause damage to the person's mouth and stomach if swallowed. If the person vomits up the caustic chemical, more tissue damage can occur and it is important never to give anyone who is unconscious something to drink or eat."

The person answering the phone at the poison center will want to know the person's age, approximate weight and everything you can tell them about what the person was exposed to. Please spell the name of the product. Many product names are hard to pronounce and by spelling the name, you are sure that the person at the poison center will know exactly which chemical or medication the person was exposed to. Then they can provide the best medical advice.

Depending on the type of chemical and the amount of chemical the person was exposed to, the person may need to see a doctor or go to an emergency room for care. However, the majority of the time, the person at the poison center can tell you over the phone what to do at home.

Don't ever be afraid that your call will not be important or that your questions are too minor. Some mothers have told the educator they did not call and then worried the rest of the day. A mother once told the educator she called the poison center when she realized that her husband had given their child a teaspoon of fever medication upstairs and she gave the child a dose of the same fever medicine when the child came downstairs. Only when she talked with her husband, did she realize they both gave the child a dose of medicine. She then called the poison center for advice. She told the educator, "I was glad I could call for advice on what I should do and how long to wait to give the medication later in the day. It gave me peace of mind."

Mark Your Answer on Your Answer Sheet

7. T. or F. If someone **is not unconscious (awake and talking)**, but was exposed to a pesticide, chemical or a medication, you should first call your family doctor.

8. T. or F. The poison center (PC) is a free non-profit emergency hotline that is open 24-hours-a-day.

9. T. or F. The toll-free telephone number of the poison center is 1-800-222-1222.

10. T. or F. The poison center number should be placed where it is easy to find, such as near the phone.

11. T. or F. It is not very common that poison centers get calls regarding a child who has swallowed a potentially poisonous substance.

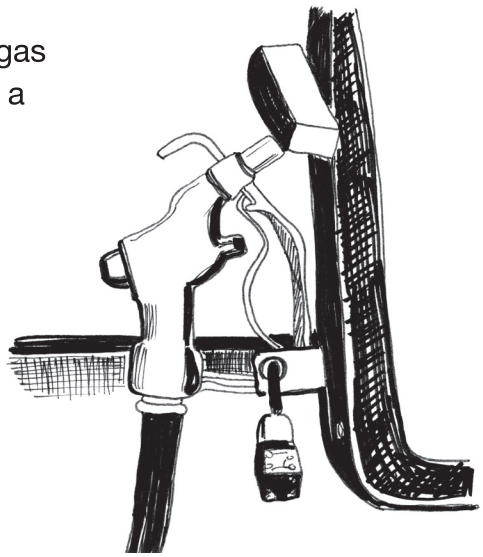
12. T. or F. Most of the calls to the poison centers are because of exposure to pesticides.

13. T. or F. You should only call the poison center when someone is exposed to a chemical or poison, not for minor concerns about chemicals and medications.

Gasoline and Farm Fuels are Dangerous

Melinda thought about the many chemicals they had around their home and all the pesticides and chemicals used on farms. She then shared with everyone how she recently read about a 4-year-old boy who lived on a farm. One day the child was playing near the fuel tanks. They think he was trying to turn the handle of the gas tank just like he had seen his dad do many times. He must have put the end of the hose into his mouth and he got a little bit of gasoline (left in the hose) in his mouth. The chemical caused some burning and irritation of the child's mouth, throat, and stomach. He was taken to the hospital and admitted for several days because there was a lot of swelling and irritation to his mouth and throat. It was good that the child did not swallow a lot of gasoline.

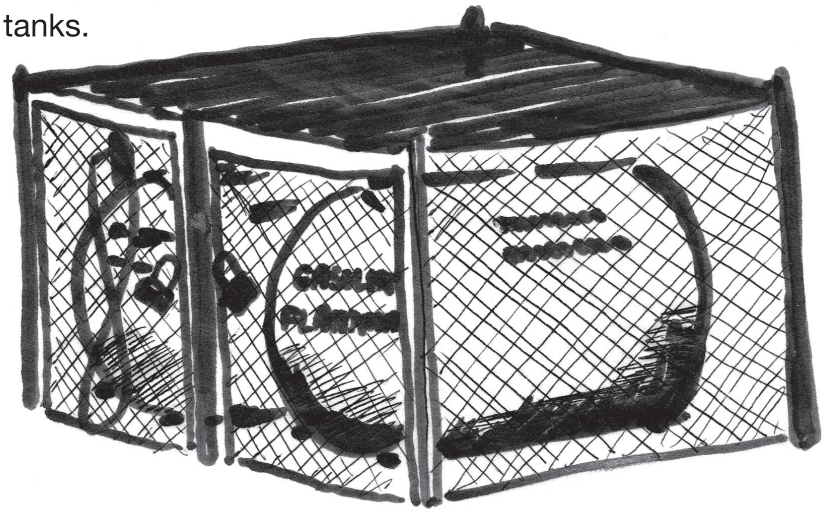
Sometimes youth or adults do swallow gasoline trying to siphon gas out of a container. Siphoning gasoline or other materials through a hose is never safe. Use a special siphoning pump if fuel must be siphoned. Swallowing gasoline can be fatal depending on how much is swallowed and how fast the child or adult receives medical treatment.



A lock on the fuel nozzle can prevent fuel spillage; keep a curious child from potential exposure to the fuel, and keep the fuel supply secure.

Lock the fuel nozzle for safety and security.

The child's parents put a lock on their fuel tanks. They also put a fence around all the fuel storage area, to prevent exposure to any child or animal.



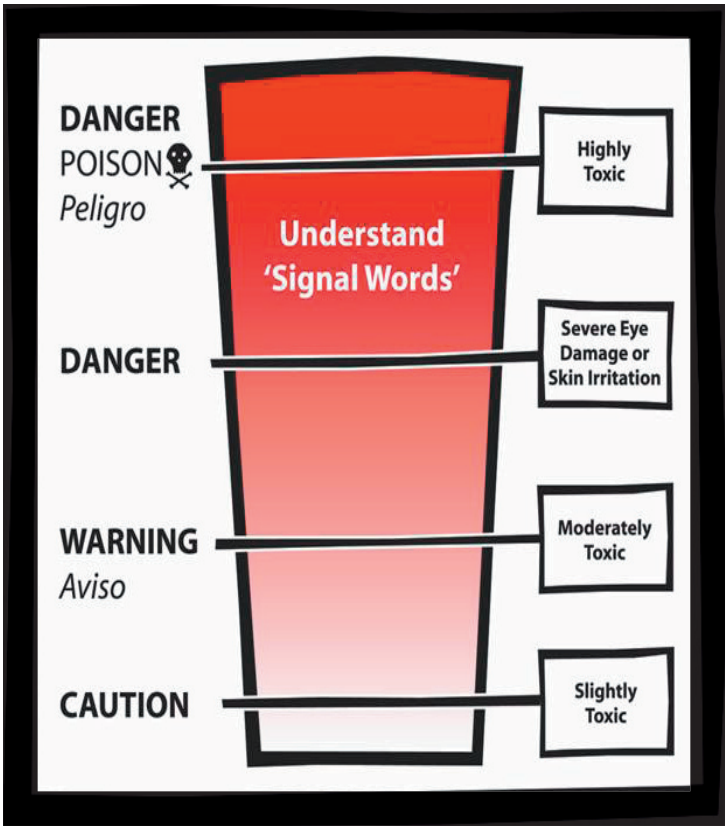
The farm fuel tanks were locked and fenced to prevent exposure to children.

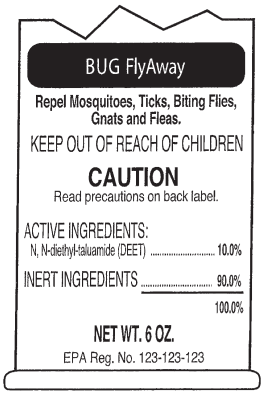
They tell everyone what happened in hopes that another child will not be exposed to farm fuels and go through what they and their child did. They just never realized or thought about how easy it would be for a child to be exposed to farm fuels. They did not know that only a small amount of gasoline or that liquid fuels can cause so much tissue damage or be fatal.

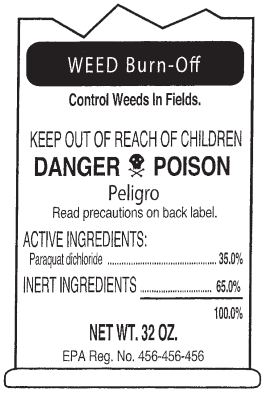
"Signal Words"

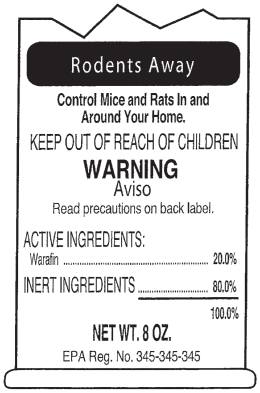
The educator thanked Melinda for sharing that story and then went on to explain that chemicals that are potentially poisonous (toxic) to humans and animals have a "Signal Word" on the label. The "Signal Words" are: **Danger, Warning, Caution, or Danger-Poison with skull and crossbones**.

A "Signal Word" on the label will tell you more about the chemical. **Caution** means the chemical is slightly toxic if eaten, absorbed through the skin or inhaled. **Warning** indicates the product is moderately toxic if eaten, absorbed through the skin, or inhaled. **Danger,** alone means that the chemical may be corrosive, causing irritation to the skin or irreversible damage to eyes and **Danger-Poison** means the chemical is highly toxic. The signal words are also a reminder of the PPE one must choose to wear when using that chemical, the greater the toxicity the more PPE that is needed.









"Signal Words" tell us more about the chemical.

Farmers know that "Signal Words" are found on each of the containers of pesticides they use to control pests (insects and weeds) on their crops. You may not realize but most of the cleaning products we use to clean and wash clothes also have a "Signal Word" on the label. The educator then got out a bag of empty household chemical bottles for Melinda and her sisters to find the "Signal Words" on the bottles. Some bottles had the signal word on the front and some were on the back. Many were small and hard to find.

During the activity Melinda's sister Sarah commented, "I never realized that the chemicals I use to clean with (wash the laundry and bleach our clothes) have a "Signal Word" on the label. I keep them right under my kitchen and bathroom sinks. I think I better move them." The educator said, "Good idea and thank you for leading us into the next topic of our program."

Mark Your Answer on Your Answer Sheet

14. T. or F. The four "Signal Words" include: Caution, Warning, Danger and Danger-Poison.

15. T. or F. Pesticides are the only products that have "Signal Words" on the bottle, indicating the product is potentially poisonous.

Chemical Exposure Prevention Tips

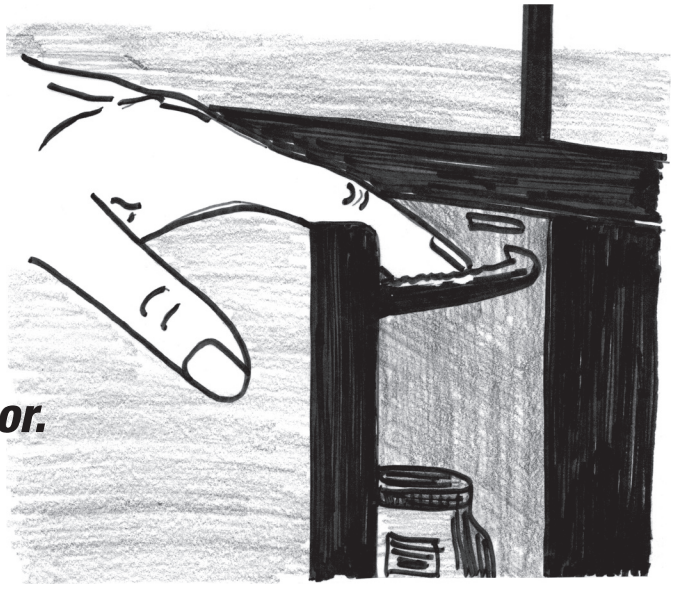
The educator continued, “Children learn by exploring their environment. Children have little understanding of possible harm that comes from exposure to pesticides, chemicals, medications or personal care products.”

“You can help prevent children from being exposured to chemicals and household products by (1) putting chemicals out of their reach and (2) by putting locks on chemical storage cabinets and doors.”

The best defense is preparation:

- Post the Poison Control Center number 1-800-222-1222 near the phone
- Read each label and follow directions
- Use the safest product or look for Design for the Environment (DfE) label
- **Never leave products unattended when you are using them**
- Re-close and put a product out of reach if interrupted (e.g. phone, knock at door)
- Keep chemicals in original containers
- Remove children before applying pesticides
- Follow label directions to determine when someone can be in the treated area

Locking every cabinet or cupboard that contains a product with a “Signal Word” on the label is one of the most important prevention steps that those caring for children can take. There are different cabinet locks you can buy at your local department store. The locks that you will take home today cannot be seen from the outside of the cabinet, but you will be able to easily open the door when needed. Children, however, will not be able to get the door open.



A push of your finger will open the door.

Mr. Yuk Stickers

Another prevention tool you can use is Mr. Yuk stickers.

You can put a Mr. Yuk sticker on any chemical bottle that has a "signal word" on the label and then tell your child not to touch a bottle that has a Mr. Yuk sticker. It is a good idea to put one of the Mr. Yuk stickers on the outside of a locked storage cabinet. A Mr. Yuk sticker can help remind a child they are not allowed to play there, and you will find the poison center's number on each Mr. Yuk sticker.

Always Keep Chemicals in Their Original Containers

Sometimes adults make a bad choice when they put a chemical or medicine into an empty food or water container. Large bottles with only a small amount of chemical left in them do clutter up the storage area, but it is never safe to put any chemical into another food, drink or water container.

To prevent exposure and poisoning of children and/or adults, **always keep chemicals in their original containers**. Children recognize water and food containers that they drank or ate from previously.

Don't use empty food and water containers to store chemicals.

If you put a chemical into a bottle which previously contained a drink, they may think it is the drink they enjoyed before and be exposed to a poison.

Some adults might think that it is okay to put a chemical or pesticide in a food or water container if they take the time to write on the bottle what is in the container. However, even if you put a hand written note on the bottle (Window Washer Fluid, **Do not Drink**), a child who cannot read may recognize the bottle and think it is a drink. An adult who can read may not see your note and be exposed to a poison.

Do not put a chemical in a drink or food container. Even if you put a hand written note (window washer fluid) on the bottle, a child may not be able to read the note.

It only takes a few moments for a child to drink a dangerous life threatening chemical.

It is a good idea to teach children to always ask an adult **"<u>May I Drink This?</u>"** before they drink or eat something. Asking first for permission to eat or drink something, could help prevent a child from being exposed to a poison at home or when you are visiting another home or farm.

It is safer for children to always ask if they may drink or eat something.

Some families you visit may not be in the habit of keeping chemicals and pesticides in their original containers. They also may not keep hazardous chemicals stored in a locked cabinet out of a child's reach. You will need to be aware of what your children are doing as you visit.

Some homes and farms you visit may keep animal medications next to food and drinks in their home refrigerator or in a refrigerator they keep in the barn. Children recognize containers of liquid they have had to drink before. If there is a recognizable container such as a Mason jar with liquid sitting out, they may think it is a drink that they may have. They could be exposed to a chemical by mistake. If a child is used to asking "May I drink this?", an exposure to a poisonous chemical may be prevented. Better yet, chemicals kept in the original containers and locked away from children can prevent chemical exposures.

Mark Your Answer on Your Answer Sheet

16. T. or F. Two important steps to prevent someone from exposure to pesticides and household chemicals are: to keep chemicals out of the reach of children and to put a lock on a chemical/medication storage cupboard.

17. T. or F. It is a good idea for children to ask if they may have a drink or food item before they eat or drink it, because sometimes people put chemicals into empty food and water containers.

18. T. or F. Mr. Yuk stickers can help remind children not to touch the container, and the poison center phone number is on each sticker.

The End of the Sisters' Day Program

The rest of the program included information about water safety, sun safety, and tractor/PTO safety. After the training, they enjoyed eating the pot luck lunch. Melinda's sisters asked the educator if she would return to teach a CPR class and more first aid. They decided to have the class in the evening so that their husbands could attend. Before the educator left, she scheduled the CPR training at 6 PM the following month at Melinda's home.

Melinda, her sisters, and mother enjoyed the rest of the afternoon talking and cutting out some quilt patches. Six-year-old Katie had just started sewing big blocks of fabric together on the sewing machine; she wanted to make a small quilt for her doll bed.

The afternoon passed quickly and soon the clock chimed four times. They all gathered their children and belongings as their drivers arrived to take them home. What a fun day everyone had. Melinda's sisters thanked her for the good time (as they buckled their children into their car seats) and said, "This was well worth coming." Melinda and her children waved good-by as the cars went out the lane, and Melinda and the children walked slowly to the house. It was time to get supper started.

Working in the Garden

The next day Melinda was busy in her garden. Katie helped her pick some radishes, spinach, and lettuce for supper. She reminded Katie not to eat any of the vegetables until they had a chance to wash them to remove the soil and/or any bug spray that could be left on the vegetables. Then she and Katie planted four rows of sweet corn.

The seeds had a pink coating, a chemical called a fungicide on them.

The pink or purple coating on seeds is a fungicide.

Melinda told Katie, “You can use the small hoe and push the soil on the seeds.” Melinda did not want Katie to touch the seeds because she could easily touch her mouth and be exposed to the pesticide. She told Katie, “If you get some of the pink coating into your mouth, it may make you feel sick.” It only took about 20 minutes to plant and hoe ground over the seeds. Then they both went to the workshop sink and washed well with soap and water.

As Melinda was washing up, she thought about how her mother sometimes would use thin plastic gloves (when she worked with coated seeds) so she would not get the pink or purple chemical (fungicide) on her hands. Her mother would always wash her gloves before taking them off and wash her hands after, to prevent being exposed to the fungicide (pink/purple powder covering the seeds).

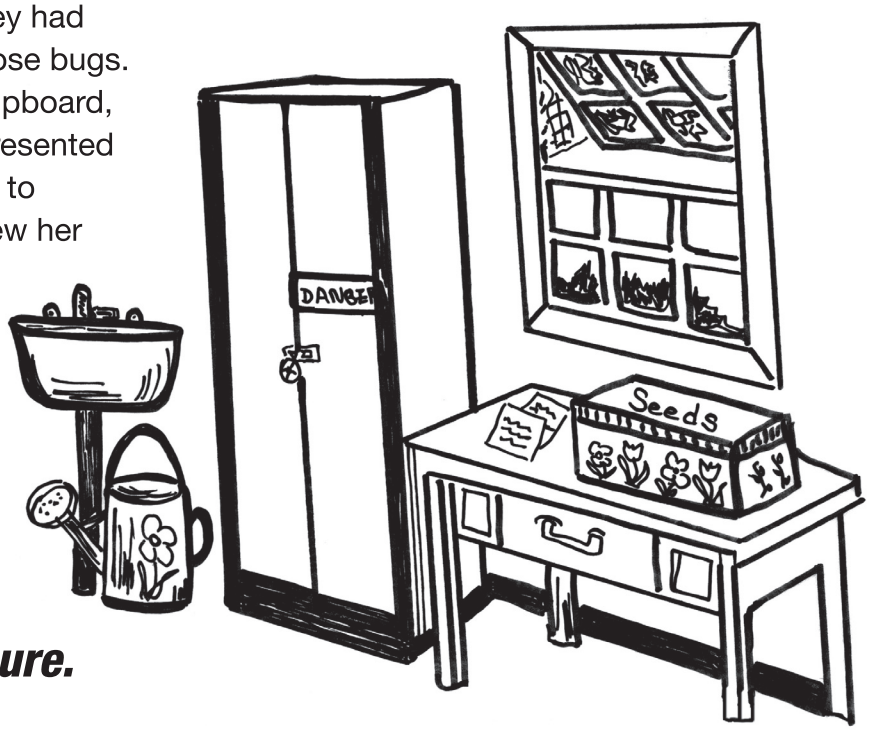
Wash your gloves before and after taking them off to prevent exposure to the fungicide.

The gloves would be too big and clumsy for Katie, and wearing gloves could only increase the chance that Katie would be exposed to the chemical. It was best to have Katie hoe the ground and cover the seeds rather than take a chance she would be exposed to the chemical. However, the next time she planted some chemically coated seeds, she planned to use thin gloves for additional personal safety.

After Katie and Melinda both scrubbed their hands, they pushed the stroller back towards the garden, and Melinda realized the baby had fallen asleep. The children were playing quietly with their dolls on the grass. Melinda walked to the upper end of the garden and noticed that her potatoes had some potato bugs on them.

Potato bugs on potato plants.

She decided to see what pesticides they had in the garden shed to help get rid of those bugs. As she unlocked the garden storage cupboard, some of the things that the educator presented yesterday about children and exposure to chemicals came to mind. She now knew her husband had made a good decision to put a lock on the garden chemical storage cabinet to prevent any exposure to their children.



Keep garden chemicals stored in a locked cabinet to prevent an exposure.

After opening the door, Melinda saw on the shelf an insecticide (Pyrethrin). She started to read the directions on the label and realized that the pesticide had a Restricted-Entry Interval (REI) of 4 hours. Her husband told her that the REI is the period of time after you finish applying pesticides that entry into the treated area is not allowed. She remembered that the educator said, "Different pesticides may have different REIs and that the REI restriction helps prevent exposure to pesticide residues (pesticide that remains on the plant after it is applied)."

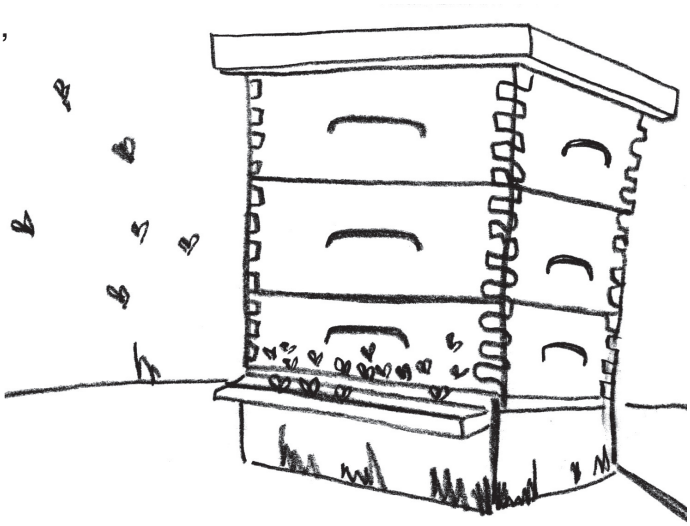
Melinda realized that everyone would have to stay out of the applied area for 4 hours. The wind had picked up and if she applied the chemical now, it could easily blow or drift onto her children or on the grass where they were playing. Melinda decided it was safer to wait and let her husband spray later when the wind would be calmer and the children could stay in the house. By morning the REI of 4 hours would be over and it would be safe for them to play in the yard. After making sure the chemical door was locked, she again washed her hands to remove any pesticide residue she may have gotten from the container.

As she was washing up, Melinda thought about the article she just read in the **"Lancaster Farming"** newspaper about how the number of honeybees is decreasing. The article reminded everyone to be careful when spraying pesticides.

Stay Far Away if someone is spraying pesticides in the garden, the wind could blow the chemical near you.

Protect Bees, spray (dusk or dawn), before bees forage or hunt for pollen.

Bees are important because they pollinate many fruit, vegetable, and field crops. According to a Cornell University study, it is estimated that every third bite of food in America is pollinated by honeybees. The article encouraged everyone to apply chemicals late in the evening or during the early morning (dusk or dawn) before bees forage or hunt for pollen.



As they walked towards the house, the children asked if they could swing before going inside. Melinda agreed they had time for swinging and sliding down the sliding board.

Mark Your Answer on Your Answer Sheet

19. T. or F. When planting seeds that have a chemical coating, **do not touch or put your hands in your mouth** until you wash with soap and water.

20. T. or F. Wearing thin plastic gloves when planting chemically coated seed is a good idea but always wash with soap and water before and after taking the gloves off.

21. T. or F. You can eat fruits and vegetables right off the plants or trees because any pesticide residue will have been removed by the dew or rain.

22. T. or F. It would have been best for Melinda to spray her potatoes since the wind was only blowing slightly.

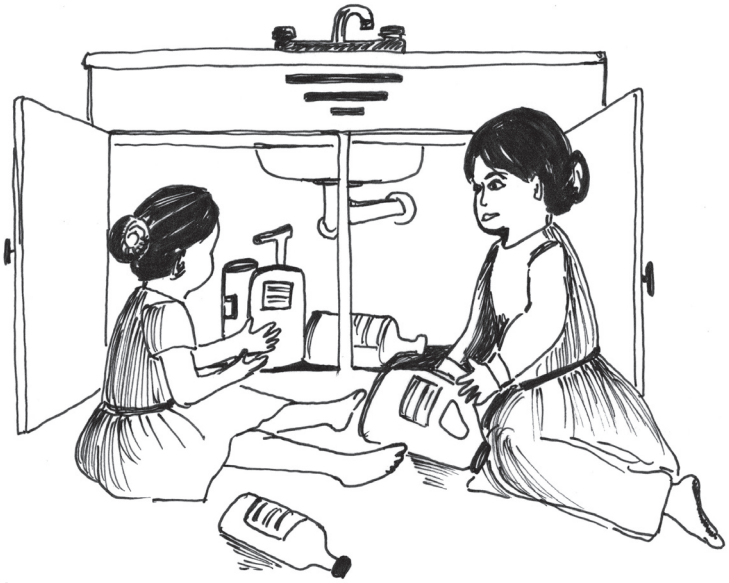
23. T. or F. It is best to spray chemicals late mornings or early afternoon when there is little wind so pesticides do not drift onto other crops, yards, and people.

24. T. or f. The Restricted-Entry Interval (REI) is the period of time immediately after a pesticide application is finished when no one is allowed to enter the treated area.

Household Chemicals in the Bathroom

After about 15 minutes of swinging, Katie asked if they could go in to make the cookies. Melinda said, “Yes, we have just enough time to make cookies before lunch. We need some cookies to serve tomorrow at lunch when our neighbors come to help clean before church services this Sunday. Oh! My how glad I am that they come to help clean; there is so much to do. Come, Sadie and Susan, you can play with your doll house and I will put the baby in her crib.”

Katie was happy they were going to make some cookies. She was glad that some of her friends would be coming along with their mothers to help clean. It was fun to play with her neighbors. She especially liked eating lunch all together. As they were washing their hands before making cookies, Katie asked, "Mother, are we going to have sandwiches and corn soup tomorrow?" Melinda replied, "Yes, I think we can make corn soup. Let's get busy; we only have an hour before it is lunch time." Melinda asked Katie to get her some eggs while she measured out a cup of sugar. The cookie batter went together quickly. Melinda was putting the first batch of cookies in the oven when she heard a loud thump coming from the bathroom.



She hurried to the bathroom and found Sadie and Susan sitting on the floor.

Sadie and Susan opened the bathroom cabinet and knocked over the bleach and toilet cleaner.

One of the girls must have opened the cabinet under the sink, because the gallon bleach bottle and the liquid toilet bowl cleaner were lying sideways on the bathroom floor. Melinda saw that the lids were still on the bottles. She was relieved to see that none of the chemicals had spilled on the floor or onto Sadie and Susan.

She picked up two-year-old Sadie and took the hand of Susan. They walked towards the kitchen sink and Melinda washed their hands. Then she put a blanket on the kitchen floor and found some toys for them to play with. Oh! How glad she was that they were both not exposed to the chemicals; she knew that was a close call.

As Melinda walked back to the bathroom to put the bottles away, she thought about the training yesterday. She remembered that some of the common poisons that children are exposed to are: medicines, soaps, deodorants, laundry detergent, cleaners, ointments such as diaper rash products and hydrogen peroxide. She realized that many of the common poisons the educator named were chemicals she kept under her bathroom or kitchen sink. As she picked up the bleach and toilet bowel cleaner, her eyes went straight to the "Signal Word" on the containers. Oh! There it was, **"Danger"**. Didn't the educator say that the Signal word, **"Danger", meant the chemical could cause severe eye damage or skin irritation?**

There the Signal Word was......"Danger"

Melinda grabbed the rest of the cleaners and soaps from under the sink and put them in a plastic basin. She then put the basin on the top shelf of the bathroom closet. The chemicals would be out of reach until David could put the lock on the cabinet door later after supper.

Mark Your Answer on Your Answer Sheet

25. T. or F. The common poisons children are exposed to include: pain medicines, personal care products such as soap and deodorant, laundry detergent, cleaners, diaper rash ointments and hydrogen peroxide.

26. T. or F. The "Signal Word" Danger means the chemical could cause severe eye and/or skin irritation.

27. T. or F. It was a good decision to put all the chemicals (cleaning products and soaps) on the top shelf of the bathroom closet until a lock could be put on the bathroom cabinet.

Chemical under the Kitchen Sink

Melinda hurried back to the kitchen. She knew by the smell that her cookies were done, and as she was taking out the tray of cookies, her eyes noticed the cabinet under the kitchen sink. She thought about all the soaps, chemicals, and even the rat poison that were stored there. She remembered the educator talking about the Environmental Protection Agency (EPA) reporting that as many as 15,000 children under the age of 6 are exposed each year to rat or mice poison. The EPA now requires manufacturers of rodenticides to enclose the product (in plastic bait stations) so that only the target pests are affected.

Melinda put the hot cookie tray down to cool on the back of the counter. She went to her sewing machine and found a strip of cloth. She took the strip of cloth and tied the handles of the kitchen cabinets together to prevent the children from getting into the cabinet until David could put the lock on the door.

After lunch the children took a nap and Melinda peeled some vegetables and put some beef on the stove for supper. She finally had a few minutes to finish some sewing.

Rat Poison Can Poison Children

During supper she told David what had happened and how she put the bathroom chemicals out of reach. He was glad the girls were okay and said that he would put the locks on the kitchen and bathroom cabinets as soon as supper was over.

He added, “I am going to put the rat poison high out of reach in the workshop chemical storage cabinet because today at work Tom told me what happened to their two-year-old daughter Lena.”

Melinda asked, “What happened to Lena?” David continued, “Lena was exposed to rat poison over the weekend. She was busy playing with their new kittens and Tom was putting rat bait into small metal containers to put on the high beams in the barn where the mice run. Just then a truck came in the driveway and Tom hurriedly put the lid on the small bucket and went out to see who had come. He was back in a few minutes but Lena and the kittens were nowhere in sight.”

Tom called for Lena and found her sitting in the corner of the barn with the lid off the small bucket. Tom and his wife were not sure if Lena had eaten any of the rat poison, but they could not take a chance. They took her to the hospital and she was kept in overnight. Her blood work showed that she had eaten a little of the rat poison but they were told she would be okay in a few days. They were told, ‘Rat and mice bait smells, tastes, and looks like rabbit or dog food to small children.’ Tom added, “I should have never put the rat poison into the small bucket and left it in Lena’s reach. My wife and I decided not to have any rat poison in the house or workshop; we decided to only use mouse traps from now on.”

Rat poison looks like food to a child.

Melinda added, “I am glad Lena is doing well; that was really a close call. I never thought about the danger of having rat bait under our kitchen sink. It is good that you are putting our rat bait in a locked cabinet in the workshop; I don’t want it under our kitchen sink. Better still; let’s start using mouse traps from now on.” David replied, “I think that would be good; I will get some traps the next time I get to the hardware store.”

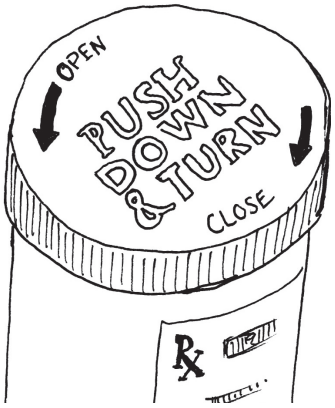
Vitamins with Iron Can Poison a Child

After a few minutes of silence, Melinda said, “Oh! I almost forgot to tell you, your sister Irene called today. She called to tell us about her neighbor (Elizabeth) and her 3 year-old-daughter, Nancy. Elizabeth was doing some laundry and Nancy was playing with some toys on the kitchen floor. Nancy was extra quiet and so Elizabeth went to see if she was all right. It is a good thing she checked on Nancy, because she had gotten the bottle of vitamins with iron off the counter.

Nancy had gotten a bottle of vitamins off the counter and was trying to get the lid open.

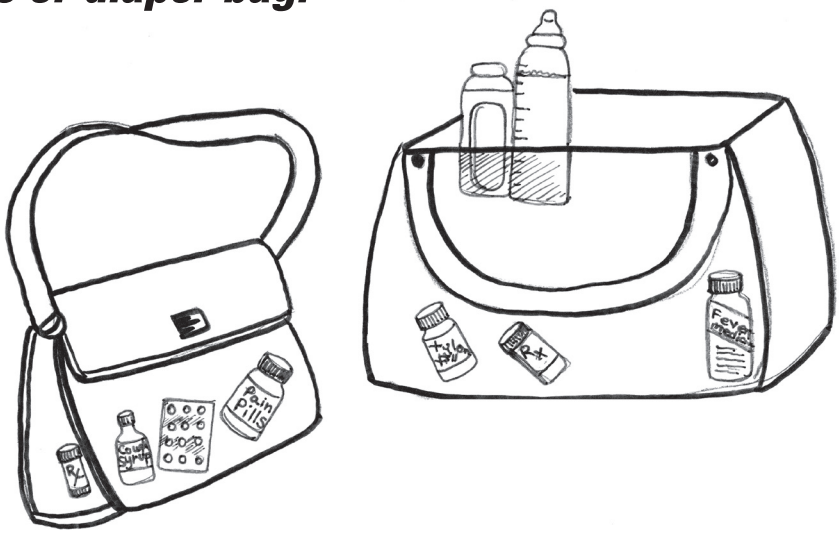
She was sitting on the floor turning the lid, trying to open the bottle. Elizabeth said, That Nancy had never gotten into the bottles of medicine before. She was glad the bottle had a child-resistant lid; the kind that you have to push down and twist at the same time to open. David said, "You mean the ones that I sometimes have trouble getting open. But don't children eventually get those lids off?"

Children can open child-resistant bottles.



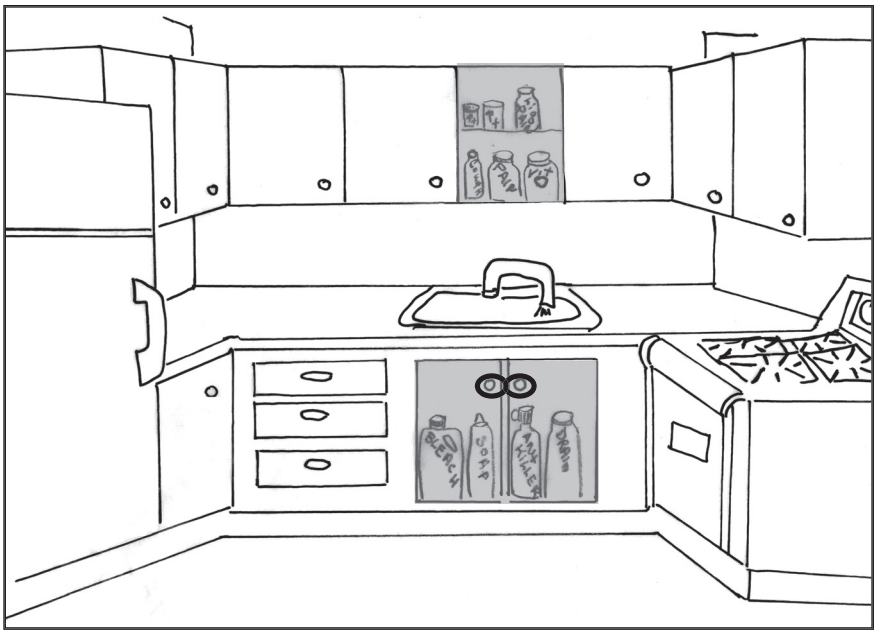
Melinda continued, "You are right. The educator did say that child-resistant lids are not child-proof. Child-resistant lids help prevent exposure to medications. Keeping medications and chemicals locked and out of reach are the best ways to prevent children from exposure." You know, if Nancy had gotten the lid off, she could have eaten some of the vitamins containing iron. Taunia, our midwife, always tells me to be careful with my vitamins because they contain iron, and iron is very toxic for children.

Medications and vitamins are in easy reach in a purse or diaper bag.



She recommends we keep vitamins, over-the-counter medicines and prescription medication in a locked cabinet, not in a purse or diaper bag where a child may find it and think it is candy. David said, "Sounds like I better put these locks on our cabinets."

Putting Chemicals and Medications Out of Reach



David opened up the package of locks and with a screwdriver, secured a lock in the cabinet under the sink and one on the cabinet above the kitchen sink.

Next he put locks on the bathroom cabinets. He was glad that his wife had gotten extra locks at the hardware store.

Next he checked the laundry room to make sure all the soaps and cleaners were out of reach. The cleaning products were on a shelf, but he realized that if a child pulled a chair under the shelf, they could stand on the chair and easily reach the bottles. He decided to put the shelf up higher, and then on Saturday he would get a cabinet that could be locked.

After reading and playing a few games with the children, it was time for bed. David and Melinda helped all the children brush their teeth, put their night clothes on, and then they tucked them safely into bed after saying their prayers. The children sang their night song, and Melinda and Dave wished them a good night's sleep.

Melinda and David were exhausted and glad it was time for bed. They had just gotten into bed when Melinda said, "Oh! We almost forgot to put all the medications out of reach." Dave replied, "You can relax. I took care of that while you were finishing up the supper dishes. It only took a few extra minutes while I was putting the locks on the other cabinets." He added, "We better get some sleep; tomorrow will be another busy day."

Mark Your Answer on Your Answer Sheet

28. T. or F. In 2011 the Environmental Protective Agency (EPA) reported that as many as 15,000 children under the age of 6 are exposed each year to rat or mice bait.

29. T. or F. Children think that rat and mouse poison looks and smells like rabbit food or dog food.

30. T. or F. Child-resistant lids on chemicals and medications are not child-proof; children can usually get them open.

31. T. or F. You can leave a bottle of vitamins with iron on the kitchen counter, as long as the bottle has a child-resistant lid on it.

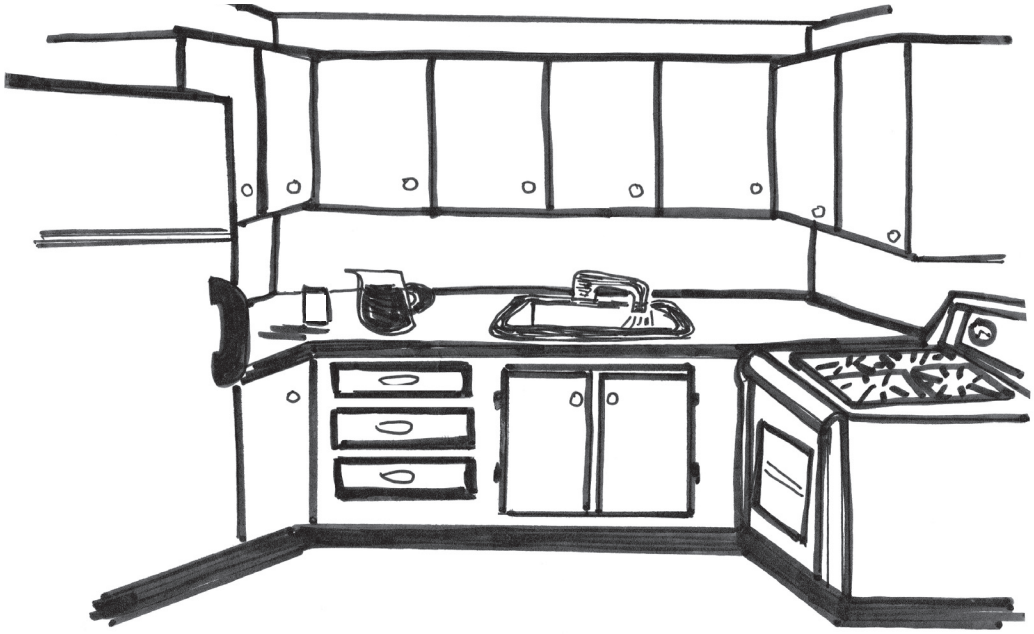
32. T. or F. Keep over-the-counter medications or prescription medicines from the drug store in a purse or diaper bag, as long as children are told not to go into the purse or diaper bag.

Cleaning Frolic

Melinda woke up early the next morning. It was Thursday and she knew five of her good neighbors and several young girls would be there soon to help clean the house for church on Sunday. Friday would be a busy day baking 25 loaves of bread and 50 Apple Snitz pies for the meal after the church service.

Melinda and her neighbors decided to start washing off the walls in the kitchen, the downstairs bedroom, bathroom and playroom. They split up into three teams and each team put hot water into their wash buckets along with some of the purple liquid disinfectant from the big 64 oz bottle.

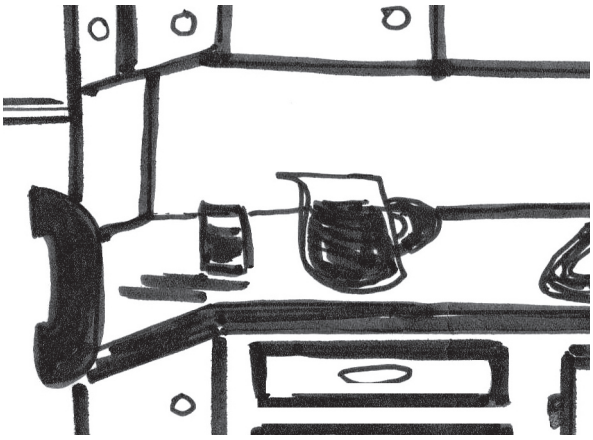
Since there was only one big bottle of purple cleaner and there were several rooms being cleaned at the same time, Melinda found an old plastic pitcher and poured some of the cleaner into the pitcher. She put the pitcher of cleaner on the kitchen counter and gave the big bottle to the teams working in the bathroom and bedroom.



Melinda put some of the purple disinfectant in the pitcher on the counter.

Soon they all were busy washing the walls, chairs and cabinets; it was fun to work while they talked together.

Katie and the Purple Cleaner



Everyone was so busy that no one noticed Katie poured some of the purple liquid from the pitcher into a small glass that was sitting on the counter.

No one noticed Katie poured some of the cleaner into the glass.

Suddenly Melinda heard a spitting noise coming from behind her. She turned around to see what had happened. There was Katie, spitting out some purple liquid all down the front of her dress. Melinda ran over to Katie and asked, “Did you put some of this purple liquid from the pitcher into this glass?” Katie said, “Yes, I thought it was juice, and I was thirsty.” Melinda asked if she swallowed any of the chemical. Katie told her “No, It tasted so bad, I just spit it out.”

Melinda picked up the purple bottle of cleaner and took it to the phone and dialed the poison center number (1-800-222-1222) listed on her “Emergency Phone Sheet”. She told the person at the poison center what had happened and gave them Katie’s age and weight. She spelled the name of the cleaning product and after a few minutes the poison center advised that Katie should “drink a lot of water and fluids the rest of the day and to see her doctor if there were any other concerns.”

Melinda was glad she had the poison center number near the phone; it saved time. The other mothers asked Melinda if she could give them a copy of the "Emergency Phone Sheet" to take home, and Melinda told them she would gladly do that. She was glad Katie was okay and that she could quickly get some medical advice.

One of the mothers said, "We are all thankful Katie did not drink the chemical. I think I will be more careful using cleaners from now on. Well! I better finish the room I was in," and with that they all went back to cleaning. It was almost noon before the cleaning was completed. Melinda told the children to go and wash up because it was time for lunch.

Lunch Time

Melinda brought out the sandwiches, cut up vegetables, chips, soup and her cookies. She had some cold meadow tea for them to drink. The children played on the swings and the mothers spent a little time talking before they had to head home. Melinda shared with her friends some of the things she learned at the Sisters' Day program. She said, "Thinking back, the educator did say to keep chemicals in their original containers, but at the time I thought she was talking about pesticides and chemicals used on the farm and in the milk house, not household cleaners. Now I realize that all chemicals, even household chemicals, should never be put in an empty food or water container, because someone might think it was a drink, just like Katie did."

One mother said, "My husband often puts his pesticides in a soda can to take to the sprayer to mix and load.

Now I realize that is not good to do because one of our children may think it is a soda."

It is not safe to put a chemical or pesticide in a soda can or bottle. Someone might think it was a drink.

One of the young girls named Mary said, "I heard about a man who was mowing the lawn and was hot and thirsty. He went into the kitchen to get a drink. He saw a gallon jug with blue liquid on the kitchen counter. He thought it was Kool-Aid (they mixed Kool-Aid in a white plastic gallon jug). He got a glass and without looking at the label, he drank some of the liquid.

Quickly he realized it was not blue Kook-Aid, and after looking at the label he realized he had just swallowed blue antifreeze. Antifreeze is a very dangerous sweet tasting chemical. They said he was in the hospital for a long time.

Another mother (Emma) said, "Chemicals like antifreeze and window washer fluid should never be taken into the kitchen. It is not safe to do; someone may think it is a drink and be poisoned just like the man who drank the antifreeze."

Never take chemicals like antifreeze and window washer fluid into a kitchen. Someone may drink it.

Melinda added, "Well, I learned the hard way to never put any chemical into a water or food container; I am so glad Katie is okay. This was a wakeup call for me."

After cleaning up the dishes, it was time for her friends to go home; it was the children's nap time. They all said good-by and her friends walked out the lane towards their homes. Melinda washed her children's hands and faces and put them in their beds for a nap. She sat down to sew but dozed off and took a small nap herself.

Mark Your Answer on Your Answer Sheet

33. T. or F. Always keep household chemicals in their original containers; never put a chemical into an empty pitcher, water, juice or food container.

34. T. or F. Never bring into the kitchen chemicals like window washer fluid or antifreeze; someone may think it is a drink and be exposed to a poison.

Steps Parents Can Take To Prevent an Exposure to a Chemical

When David arrived home at 5 o'clock, Melinda was mashing the potatoes and cutting the meat for supper. She told David what had happened to Katie and how she called the poison center. The poison center was very helpful and recommended that Katie should drink a lot of extra fluids. Melinda added, "I am so glad Katie did not drink any of the cleaner."

Now I realize there are steps we as parents must take to help prevent a child from being exposed to a chemical. The three steps are:

1. Keep chemicals and medicine locked and out of the reach.

2. Keep chemicals in their original containers, **NEVER** put a chemical into a food or drink container.

3. Do not allow yourself to get distracted when using a chemical.

Sharing Chemical Safety Information

David added, "I am glad we took the time to lock up all our chemicals and medications. It didn't take that long and our children and visitors will be safer. Do you think you could call the educator and see if she can send us some of the chemical fact sheets and poison center stickers? Next month is our family reunion and we could share what happened to Katie and give our family some poison information and the "Emergency Phone Sheet" to put near their phone. After all, chemical safety is important, and if we tell our friends and family what happened and provide them with some prevention fact sheets, we may help prevent a child from being exposed."

Melinda added, "That is a great idea; I will call the educator Monday and find out what she can send us. Chemical safety is important for everyone. I am glad we can help to spread the word to prevent another child from being exposed to a poison. Well! Call the children. Supper is ready."

Questions and Answers for Home and Garden Safety Simulation

1. T. or F. Symptoms of an acute exposure happen quickly, but someone who is chronically exposed may not show the effects for months or years.

True—Acute means quick. Symptoms of acute exposure (rash, trouble breathing, and eyes/throat burn) are usually immediate, but someone who is exposed over a long period of time may not show signs or symptoms for weeks, months, or years.

2. T. or F. The four ways we can be exposed to a chemical are: dermal (skin), inhalation (lungs), oral (mouth) and the eyes.

True—The four routes of exposure are skin, lungs, mouth or ingesting, and by splashes of chemicals in the eyes. The majority of those exposed to pesticides is by absorption through their skin.

3. T. or F. If someone spills a chemical on their skin or in their eyes, the first thing to do is flush for 15-20 minutes with water.

True—A chemical that spills on your clothes, on your skin, or into your eyes will be absorbed into your body. The chemical can burn or cause damage to your skin or eyes. The first thing to do is flush for 15-20 minutes with water. You can use an eye wash solution, a saline solution (used by those who ear contact eye lenses), a water bottle, a hose, get into the shower or use water from the faucet at a sink.

4. T. or F. Always read the label before using a product. The label will include information about: basic first aid, the active ingredient, and what personal protective equipment or PPE to wear when using the product.

True—The label of the product will tell you what protective clothing must be worn when using the product, the active ingredient of the product, how to mix the pesticide, how to store or dispose of the chemical and basic first aid measures.

5. T. or F. If someone is found unconscious and is not awake or responding, it is best to call 9-1-1.

True—If someone is found not responding or unconscious for whatever the reason; call 9-1-1. The 9-1-1 operator will provide information about what to do until medical responders can arrive. It is a good idea for a family to take training in CPR and first aid. Send someone to the edge of the road or end of the lane during an emergency to help responders not to miss your driveway.

6. T. or F. Medical responders do not really need to see the label of the chemical that caused someone to feel sick, because they know what medications to give to someone exposed to a poison.

False—It is very important to give the label of the chemical or product (you think caused the child or adult to feel sick) to the medical responders; it helps them know what kind of medication and/or care to give the person. The label may list specific information for doctors regarding the treatment when someone was exposed to that specific chemical, pesticide or medication.

7. T. or F. If someone is not unconscious (awake and talking), but was exposed to a pesticide, chemical or a medication, you should first call your family doctor.

False—First try to call the poison control center since you will be connected faster to those who can provide expert medical information. Your doctor may not be available or may not be in the office. It is faster to call the poison center for information. Remember to take the bottle or label along to the phone.

8. T. or F. The poison center (PC) is a free non-profit emergency hotline that is open 24-hour-a-day.

True—The poison center is a free service and will provide you with the latest poison information and advice for any poisoning incidents.

9. T. or F. The toll-free telephone number of the poison center is 1-800-222-1222.

True—Yes, the toll free number for the poison center is (1-800-222-1222). Your call will go to the nearest poison center.

10. T. or F. The poison center number should be placed where it is easy to find, such as near the phone.

True—Placing the poison center number (1-800-222-1222) near the phone or somewhere you can easily find it saves time during an emergency from having to find the number in the telephone book.

11. T. or F. It is not very common that poison centers get calls regarding a child who has swallowed a potentially poisonous substance.

False—Every 15 seconds a poison center in the United States gets a call regarding a child who has swallowed a potentially poisonous substance.

12. T. or F. Most of the calls to the poison centers are because of exposure to pesticides.

False—Most of the calls to the poison centers are calls about medications, household chemicals and exposure to personal care products.

13. T. or F. You should only call the poison center when someone is exposed to a chemical or poison, not for minor concerns about chemicals and medications.

False—Call the poison center for any poison concern or for poison information. No question is too minor and it is safer to call and get medical advice rather than worry.

14. T. or F. The four “Signal Words” are Caution, Warning, Danger and Danger-Poison.

True—The four “Signal Words” include: Caution, Warning, Danger, and Danger-Poison which is the most toxic.

15. T. or F. Pesticides are the only products that have "Signal Words" on the bottle, indicating the product is potentially poisonous.

False—Many household chemicals do have "signal words" on the label which indicate that the product is toxic or potentially poisonous. Take time to check if there is a "Signal Word" on some of the household cleaning products you routinely use. Then those with a "Signal Word" should be kept out of reach behind a locked door.

16. T. or F. Two important steps to prevent someone from exposure to pesticides and household chemicals are: to keep chemicals out of the reach of children and to put a lock on a chemical/medication storage cupboard.

True—Children are curious and explore their environment as part of their normal learning experience. It is difficult to be with small children every minute. Two important steps that those caring for small children can take to help prevent exposures to poisonous chemicals are to keep chemicals locked up and stored high out of reach.

17. T. or F. It is a good idea for children to ask if they may have a drink or food item before eating or drinking something.

True—Sometimes people put chemicals into empty food and water containers that children recognize as something they enjoyed drinking or eating before. Asking first before drinking, could prevent an exposure to a poison especially when you are visiting another home or farm that might have chemicals within easy reach or in Gatorade, water, or soda containers rather than in the original chemical bottle.

18. T. or F. Mr. Yuk stickers can help remind children not to touch the container and the poison center phone number is on each sticker.

True—Some parents do use Mr. Yuk stickers and place them on chemical bottles and then teach their child not to touch a bottle with a Mr. Yuk sticker. Some parents put a Mr. Yuk sticker on the locked cabinet door where they store dangerous chemicals. Each Mr. Yuk sticker does have the poison center phone number listed and could be placed near your phone.

19. T. or F. When planting seeds that have a chemical coating, do not touch or put your hands in your mouth until you wash with soap and water.

True—The chemical coating on seeds prevents fungal growth or deters birds. When planting with seeds that are chemically coated, small children could help push soil on top of the seeds rather than touching or planting the seeds since it is difficult for small children not to put hands in their mouth. It is a good idea to remind older children each time they help plant fungicide-coated seeds to wash immediately after planting the seeds.

20. T. or F. Wearing thin plastic gloves when planting chemically coated seed is a good idea but always wash with soap and water before and after taking the gloves off.

True—It is ok to wear thin plastic gloves when planting chemically coated seeds. Be sure to wash the gloves with soap and water (get the chemical off the gloves) before removing them to help prevent the chemical from getting onto your hands. Then wash your hands well to remove any chemical that might have gotten onto your hands while taking off your gloves.

21. T. or F. You can eat fruits and vegetables right off the plants or trees because any pesticide residue will have been removed by the dew or rain.

False—Dew or rain may not remove all pesticide residues that could be left on the fruit or vegetables from the last application. It is always safer to wash all fruits and vegetables before eating them.

22. T. or F. It would have been best for Melinda to spray her potatoes since the wind was only blowing slightly.

False—If you spray with pesticides when the wind is blowing, the pesticide can blow away from the target plant and drift onto other plants or onto children playing nearby. Children can also be exposed when playing on the yard or grass where a chemical drifted during application.

23. T. or F. It is best to spray chemicals late mornings or early afternoon when there is little wind so pesticides do not drift onto other crops, yards, and people.

False—The best time to spray is early morning or late evening—when there is little wind. Usually that time of the day the wind is the calmest.

24. T. or F. The Restricted-Entry Interval (REI) is the period of time immediately after a pesticide application is finished when no one is allowed to enter the area.

True—The Restricted-Entry Interval or (REI) is the time that no one is allowed to enter the area that was sprayed with a pesticide without pesticide safety training and protective clothing. The label of the product will tell you how long everyone must stay away from the sprayed area. Each product can have a different amount of time that access to the area is restricted, so read the label for directions.

25. T. or F. The common poisons children are exposed to include: pain medicines, personal care products such as soap and deodorant, laundry detergent, cleaners, diaper rash ointments and hydrogen peroxide.

True—The Children's Hospital of Philadelphia (Poison Control Center), reports there are dangers for children in each room of the house. Most accidental poisonings involve children less than 6 years of age. Over half of these poisonings involve common household products such as cosmetics, plants, common medications such as pain relievers, cough and cold preparations, vitamins and prescription drugs.

26. T. or F. The “Signal Word” Danger means the chemical could cause severe eye and/or skin damage.

True—A chemical that has a “Signal Word” on the label (Danger Poison, Danger, Warning, and Caution) means that the chemical is toxic to humans and animals.

- *Danger—means that the chemical can cause severe eye and/or skin damage and the chemical may be corrosive.*
- *Danger Poison—If the chemical is also toxic if eaten, absorbed through the skin, or when inhaled the word “Poison” must be included in red letters on the front of the package.*
- *Warning indicates the product is moderately toxic if eaten, absorbed through the skin, inhaled, or it causes moderate eye or skin irritation.*
- *Caution is the least toxic and is slightly toxic if eaten, absorbed through the skin, inhaled, or it causes slight eye or skin irritation.*

27. T. or F. It was a good decision to put all the chemicals and soaps on the top shelf of the bathroom closet until a lock could be put on the bathroom cabinet.

True—It was a good decision to move the chemicals to a high shelf and out of reach, but children can easily pull a chair or stool over to the shelves and be exposed. One child who came into the emergency room because he had taken some Aspirin had done just that. The upset mother explained how she had the bottle of Aspirin on the top shelf of her bedroom closet but the child was able to get to the bottle (pulled a chair to the shelf) and had ingested some of the pills. Using a lock is an inexpensive tool that provides parents added security to help prevent an exposure.

28. T. or F. In 2011 the Environmental Protective Agency (EPA) reported that as many as 15,000 children under the age of 6 are exposed each year to rat or mice bait.

True—The Environmental Protective Agency has reported that in 2011 there were as many a 15,000 children under the age of 6 who were exposed to rat or mice bait. The EPA has taken steps to cancel and remove from the consumer market 20 mice and rat poison products by asking a Scientific Advisory Panel to review a notice of intent to cancel the products. Eleven of the 20 products also contain second generation anticoagulants, ingredients that pose hazards to non-target wildlife. There are products that meet the Agency’s safety criteria widely available.

29. T. or F. Children think that rat and mouse poison looks and smells like rabbit food or dog food.

True—Children do think that rat and mice poison looks a lot like rabbit food or dog food. Since it often smells good and tastes good, children easily eat it. If children or pets are around your home, donít use rat or mouse poison. You should use a product that is safer or mouse traps.

30. T. or F. Child-resistant Lids on chemicals and medications are not child-proof; children can usually get them open.

True—Children will eventually get child-resistant lids open; they are not child-proof. Many children open the lids easier than adults. It is amazing how quickly a child can open the child-resistant lids.

31. T. or F. You can leave a bottle of vitamins with iron on the kitchen counter, as long as the bottle has a child-resistant lid on it.

False—It is never ok to leave medication in easy reach of a child (with or without a child-resistant lid). To children medication often looks like candy. It only takes a few seconds for a child to be exposed to a poison.

32. T. or F. Keep over-the-counter medication or medication from the drug store in a purse or diaper bag, as long as children are told not to go into the purse or bag.

False—Keeping prescription drugs (medication prescribed by a doctor), over-the-counter medication (Tylenol, cough medication, or vitamins with iron) in your purse or diaper bag would be in easy reach of a child. Some children do not (especially if told not to) go into a purse or diaper bag. However, some children do explore (as a normal part of learning) the world around them and may find medications in a mother's purse, diaper bag, or in grandmaís purse that could poison them. Depending on the type of medication and the amount ingested, it could be a life-threatening situation and an expensive trip to the hospital that could have been prevented.

33. T. or F. Always keep household chemicals in their original containers; never put a chemical into an empty pitcher, water, juice or food container.

True—The storage of any pesticide product in any container other than the original pesticide container is a violation of federal law. Storing any chemical in soda-pop containers, food containers, or other types of non-pesticide containers can have serious consequences. Adults or children who mistakenly eat or drink a pesticide may be seriously poisoned or killed. Small children, in particular, associate the shape of the container with its contents.

34. T. or F. Never bring into the kitchen chemicals like window washer fluid or antifreeze. Someone may think it is a drink and be exposed to a poison.

True—In a day-care, the owner went shopping and bought some windshield wiper fluid and other supplies they needed. When he came back to the day-care with the items, somehow the windshield fluid was grabbed and put in the refrigerator by mistake. A staff person went to the refrigerator to get her ten children a snack. She grabbed the bottle and ten children drank windshield wiper fluid. The children were ages 2-7 years old and were exposed to about 1 ounce of the blue fluid. Never take these kinds of products in the kitchen to prevent everyone from being exposed to these dangerous chemicals.

Worker Protection Standard Chemical Story

Sam's Greenhouse and Road Side Vegetable Stand

Sam is a young Amish farmer who lives on a 100 acre farm with his wife Katie and their 3 small children. He has several greenhouses and grows flowers and vegetable plants, which he sells at his road-side stand. He also grows corn, soybeans, and tobacco. His wife, Katie, helps him as much as she can with the greenhouses and the vegetable stand, but their young family (5 month-old Mary, 2 year old Sadie, and 5 year old John) keeps her busy. Sam uses both general-use and restricted-use pesticides to control pests and weeds in the field and greenhouse. Since his wife is kept busy with the children, every spring he hires his nephew, Ezra, to help with the field spraying, plowing, and planting. He also hires several young neighbor girls to help with rooting, transplanting seedlings, picking produce, and working in the road-side stand.

Sam Attends Certification Training and Worker Protection Standard Regulations

Early one spring day, Sam attended a farmer's certification training program. He needed one more core credit and one category credit to maintain his pesticide applicator's license. Jim Harvey, the Pennsylvania Rural Health Farm Worker Protection Safety Specialist, was one of the speakers that day. His talk was about the Worker Protection Standard (WPS) regulation. Jim explained that the WPS was a **federal** regulation designed to limit exposure of pesticides for agricultural workers and handlers.

Sam learned that an **agricultural worker** is someone who is (1) employed for compensation (including self-employed); and who (2) performs tasks such as harvesting, weeding or watering in the production of agricultural plants. **A handler** is someone employed to mix, load, transfer, root seedlings (using a product with an EPA registration number), apply pesticides, and clean or fix pesticide application equipment.

Any grower or employer of agricultural workers or pesticide handlers using pesticides (general-use or restricted-use) falls under the WPS requirements and needs to provide employees with information about exposure to pesticides, protection against exposure, and ways to decrease exposure.

One of the growers raised his hand to ask Jim a question. The farmer wanted to know if he only used general-use pesticides purchased from his local supplier, would he need to comply with the WPS regulation? Jim replied that, "The WPS regulation requires any grower applying (general-use or restricted-use) pesticides to comply with the WPS if they employ someone outside of their immediate family (immediate family includes: spouses, brothers and sisters, children, step-children, foster children, parents, step-parents and foster parents)." Sam realized that the regulations applied to him because he uses pesticides and hires employees outside of his family since his children were too young to help with all the work. Employers of these operations need to provide information on where pesticides were used and train their workers on how they are exposed to pesticides and how to protect themselves .

Jim continued, "If you do use pesticides and do hire workers (other than immediate family), then it is important that you know what the WPS regulation requires." Complying with the WPS regulation does not require a lot of time and is a lot of common sense steps that will help decrease pesticide exposure for yourself, your family, and your employees.

Pennsylvania Department of Agricultural (PDA) Inspectors

Pennsylvania Department of Agricultural (PDA) has inspectors that make regular visits to local growers. The inspectors have the right to visit any chemical dealer and ask to see who is buying pesticides. A PDA inspector can visit any of the farmers who are buying and using any pesticides. This WPS check list will help you to know what is required to be in compliance.

Worker Protection: Check to See if You Are in Compliance

This checklist serves only as a brief overview of basic WPS requirements. For complete details of your responsibilities, refer to the "How to Comply Manual" or contact your nearest PA Department of Agriculture office.

Central Location:

- ☐ All information should be legible, up-to-date, and accessible to employees
- ☐ The EPA approved Safety Poster is posted and complete
- ☐ Display emergency medical information
- ☐ The following records are displayed and available for at least 30 days following expiration of the restricted reentry interval (REI): location of treated area, pesticide product name, active ingredient, EPA registration number, start date and time of the application, and REI

Pesticide Safety Training:

Complete WPS Training has been given to:

- ☐ Workers prior to the 6th day of entering any treated areas and every 5 years thereafter
- ☐ Handlers prior to performing any handler tasks and every 5 years thereafter
- ☐ "Basic Pesticide Safety Information" is provided to workers as necessary
- ☐ EPA developed or equivalent training materials are used in training
- ☐ Training is presented in a language the trainees can understand
- ☐ Trainers are properly qualified

Decontamination Sites:

Handler decontamination sites have/are:

- ☐ At least 3 gallons of water per handler, soap, single-use towels, and coveralls
- ☐ Located at mixing/loading sites, within 1/4 mile of the application site and where PPE is removed
- ☐ Supplied with at least 1 pint of immediately available clean water for eye flushing when the label specifies the use of protective eyewear

Worker decontamination sites have/are:

- ☐ At least 1 gallon of water per handler, soap, and single-use towels
- ☐ Located within 1/4 mile of the work site
- ☐ Provided for 30 days following the end of the REI (7 days with REIs of 4 hours or less)

Applicator Notification:

- ☐ Oral and/or posted warnings given according to label requirements
- ☐ Appropriate warning signs are used and posted at all usual entry points to treated areas
- ☐ Warning signs are posted not more than 24 hours prior to treatment and removed within 3 days following the end of the REI
- ☐ Oral warnings are given in a language workers can understand

Personal Protective Equipment (PPE):

- ☐ Label required PPE is provided for handlers and early entry workers
- ☐ PPE is kept clean and well maintained
- ☐ A clean place for PPE storage is provided

Employer Information Exchange:

- ☐ Custom applicator supplies information for Central Location Posting **prior** to applications
- ☐ Information is supplied to custom applicators about REIs in effect on the property which they are exposed to

Monitoring Handlers:

- ☐ Sight or voice contact made at least every 2 hours with handlers using Skull & Crossbones pesticides
- ☐ Constant voice or visual contact is maintained with handlers using fumigants indoors

If your PDA inspector stops by your farm to do a WPS inspection of your facility, they will use a similar checklist. If you are inspected and found to not be in compliance with the WPS regulation, there could be a fine issued by PDA. Any grower not in compliance also will be re-inspected again within the next year.

Worker and Handler Training

During the meeting, Sam realized that an **Agricultural Worker** must receive **at least the basic safety training** before going into WPS-covered crop areas that were treated with pesticides within the past 30 days. An employer could **use the EPA poster to teach a worker some basic pesticide training but must provide the full pesticide training (using one of the three types of EPA accepted teaching materials) prior to the 6th day of entering any treated area**.

Sam also realized that under the WPS regulation anyone who applies, mixes and loads, and cleans or fixes pesticide application equipment **is considered to be a handler and must be trained prior to doing any handling duties**.

Sam could have someone with a current Pennsylvania pesticide certification provide training for his employees or he could choose to do the training himself, since he had his certification. A trainer could choose to use any of the EPA-accepted materials including a flip chart, handbooks, or use a DVD or video. Sam decided he would train his own employees the next day after the training before his employees started working.

Sam was not sure he understood everything he needed to know to be in compliance with the WPS regulation. He asked Jim at break time if he would be willing to stop by his farm to make sure he was correctly following the WPS regulation. Jim said that he would and they set a date.

Mark Your Answer on Your Answer Sheet

1. T. or F. **Worker Protection Standard (WPS)** is a state regulation issued by the Environmental Protection Agency (EPA) and is designed to inform, educate, limit exposure, and reduce adverse affects from pesticides for employees.
2. T. or F. An **agriculture worker** is someone hired to harvest, weed, water crops or perform any task in the production of agricultural plants.
3. T. or F. The EPA defines a **Pesticide Handler** as a person employed to mix, load, transfer, apply pesticides or fix pesticide application equipment.
4. T. or F. Agricultural workers are not allowed to apply pesticides, handle open pesticide containers or clean contaminated equipment.
5. T. or F. A grower is not required to comply with the WPS regulation if they only use general-use pesticides (chemicals found at Lowes, Home Depot, Ag Service, etc.).
6. T. or F. It is OK for a grower to hire his nephew and not provide safety training since a nephew is exempt from the WPS regulation.
7. T. or F. The WPS defines **immediate family** as spouses, brothers and sisters, children, step-children, foster children, parents, step-parents and foster parents.
8. T. or F. It is OK for someone who has a current Pennsylvania pesticide certification to train agriculture workers and handlers.

Central Location

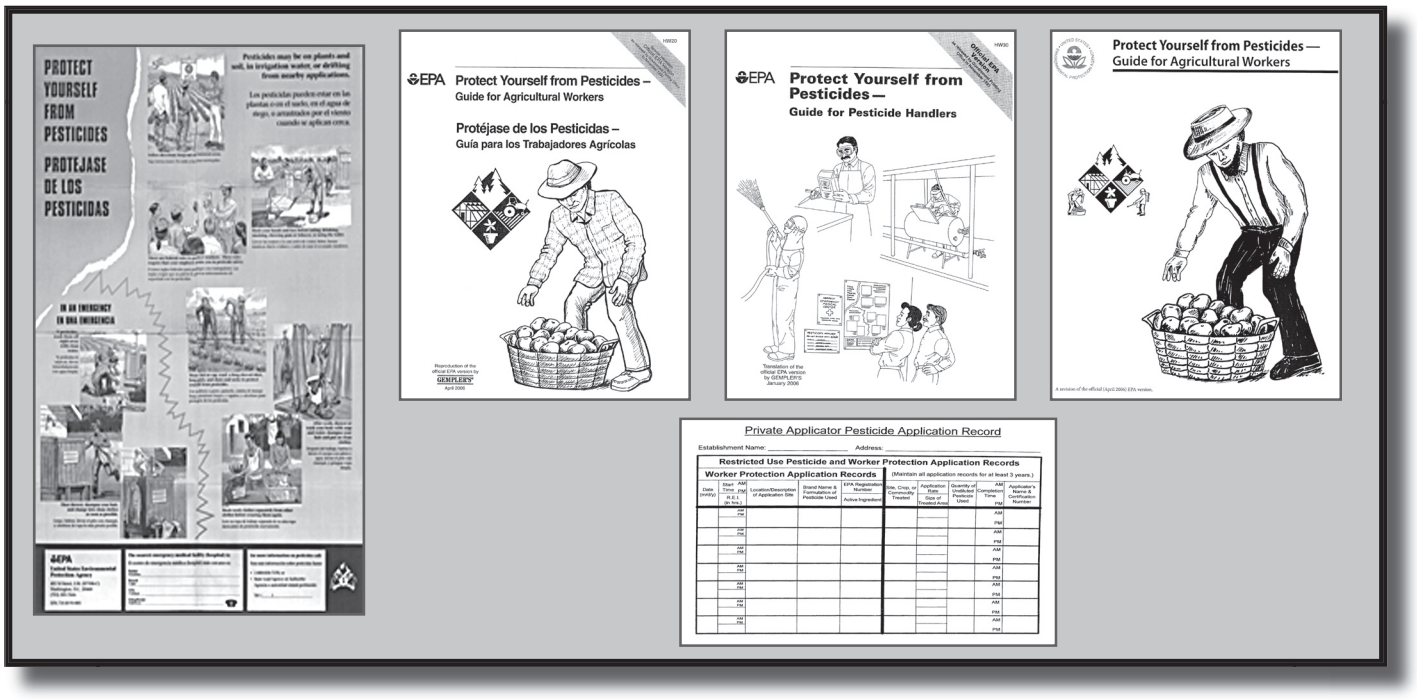
Sam also learned that to be in compliance with the WPS, he needed to create a **Central Location** for all his workers and handlers. Jim defined Central Location as a spot that is easily accessible to all employees. Having a Central Location allows, any employee, without asking his or her boss, to find information regarding what pesticides were sprayed in the last 30 days and where they can get medical help if they feel sick because of pesticides.

Sam planned to put his Central Location adjacent to where his employees eat their lunch. He could hang the required EPA poster that Jim gave him and write at the bottom of the poster the name, address, and telephone number of the nearest hospital, medical clinic, or local doctor. If Sam was away and one of the workers felt sick because of exposure to pesticides, they would know where they could get medical attention.

On the lower right side of the poster, he would insert the phone number for the state lead agency, which is the agency that regulates pesticides. In Pennsylvania, that would be the Pennsylvania Department of Agricultural (PDA) regional office phone number.

Next to his EPA poster, Sam planned to hang a list of all the general-use and restricted-use pesticides applied in the last 30 days plus the restricted-entry interval (REI). The restricted-entry interval (REI) is the amount of time that workers are required to stay out of the treated area after the pesticide application has been completed. Sam also hung a copy of the worker and handler pesticide safety training booklets for his employees use, even though the WPS regulation does not require these to be at central location.

The Central Location

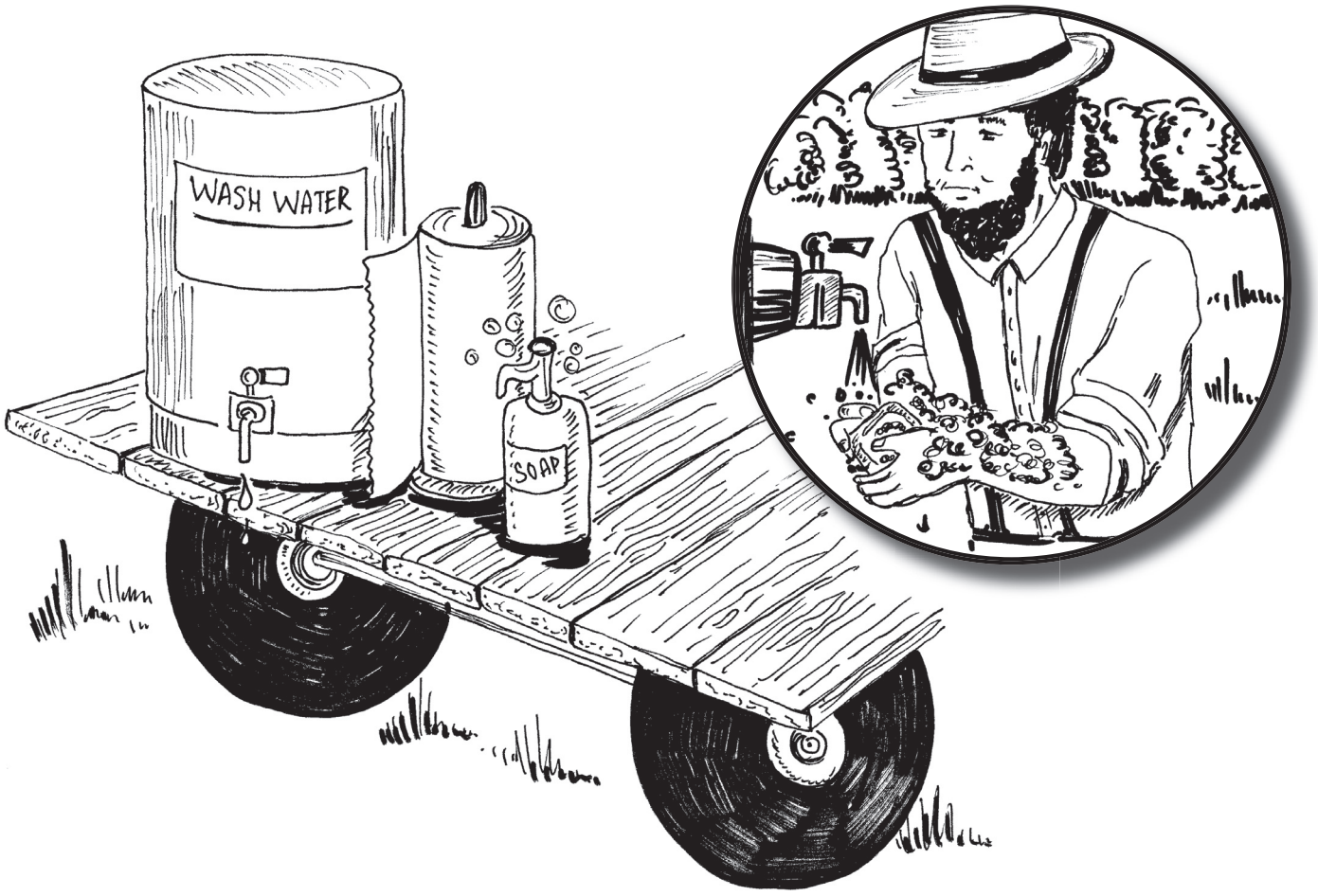


Mark Your Answer on Your Answer Sheet

9. T. or F. Central Location is a spot that is accessible to all employees.
10. T. or F. The WPS requires an employer to post the EPA safety poster at the Central Location.
11. T. or F. The WPS regulations require employers to post at the Central Location a list of only restricted-use pesticides used in the last 30 days.
12. T. or F. The WPS regulations require a grower to post a copy of the worker pesticide safety training booklet at the central location.

Decontamination Supplies

Sam realized that he needed to provide soap, water, and single-use paper towels within 1/4 mile of the worksite (even when working in the fields) since he knew that, WPS regulations require decontamination supplies be provided for 30 days following the end of the REI. Sam already had soap, water, and cloth hand towels near the sink for his employees. Jim said, “The WPS requires single-use paper towels, since pesticides can build up on cloth towels even if they are washed.” That made sense to Sam and he knew it would be easy to buy some paper towels. When they work in the field, he always has a first aid kit with the equipment, so Sam knew it would be easy to add some soap, paper towels, and a jug of water.



Personal Protective Equipment and Decontamination Supplies in the Field

Jim explained that each agricultural worker needs to have available decontamination supplies including soap, single-use paper towels, and 1 gallon of water per worker within 1/4 mile of their work site. Each handler needs to have available soap, single-use towels, and 3 gallons of water per handler within 1/4 mile of field application, at the mix and load site and where Personal Protective Equipment (PPE) is taken off. In addition to the decontamination supplies, a handler needs to have a change of clothes available (a Tyvek suit, coveralls or old pants and shirt) to change into if their work clothes are contaminated with pesticides. Jim made sure that he was clear. "A handler needs to have decontamination supplies and a change of clothes available at all three sites (field application, mix and load site, and where PPE is taken off)," he stressed.

Jim explained that, "Personal Protective Equipment (PPE) includes respirators, eye protection, chemical apron, chemical resistant garments, and gloves that protect workers when mixing, loading or applying pesticides. Wearing PPE provides a barrier between the pesticide and the human body. Appropriate protective clothing and/or equipment should always be worn by anyone working with pesticides. The type of protective clothing and equipment depends on the job being done and the type of chemical and/or pesticide used."

Jim continued, "The WPS requires that the labels of pesticides used at farms, forests, nurseries and greenhouses list the type of PPE that must be worn with each product. Labels will refer to chemical resistance categories (A-H) for PPE. Items in these categories are made of materials that the pesticide cannot pass through during the times indicated (below the chart) in the following table. Choose the category of resistance which best matches the handling task duration. A copy of this chart is available on the hand-out table."

Selection Category Listed on Pesticide Label	Types of Personal Protective Material							
	Barrier Laminate	Butyl Rubber ≥ 14 mils	Nitrile Rubber ≥ 14 mils	Neoprene Rubber ≥ 14 mils	Natural Rubber ≥ 14 mils	Polyethelene	Polyvinyl Chloride (PVC) ≥ 14 mils	Viton ≥ 14 mils
A(a dry and water- based formulation)	high	high	high	high	high	high	high	high
B	high	high	slight	slight	none	slight	slight	slight
C	high	high	high	high	moderate	moderate	high	high
D	high	high	moderate	moderate	none	none	none	slight
E	high	slight	high	high	slight	none	moderate	high
F	high	high	high	moderate	slight	none	slight	high
G	high	slight	slight	slight	none	none	none	high
H	high	slight	slight	slight	none	none	none	high

HIGH: Highly chemical-resistant. Clean or replace PPE at the end of each day's work period. Rinse off pesticides at rest breaks.

MODERATE: Moderately chemical-resistant. Clean or replace PPE within an hour or two of contact.

SLIGHT: Slightly chemical-resistant. Clean or replace PPE within 10 minutes of contact.

NONE: No chemical-resistance. Do not wear this type of material as PPE when contact is possible.

Jim added, "Categories are based on the inert ingredients used in the pesticides, NOT just the active ingredients themselves so there will be times where the same pesticide with two different formulations (wettable powder-WP and emulsifiable concentrate-EC, for example) will require PPE from two different chemical resistance categories." You can call the NIOSH Agricultural Pesticide PPE Hotline at **1-888-654-2294** or **PesticidePPE@cdc.gov** to find out if you are selecting the correct PPE for the pesticide you are applying.

Sam realized that when someone is working with a pesticide and the label requires eye protection, at least a pint of eye wash must be immediately available to flush the chemical from the worker's eyes. Employers need to monitor handlers and make sight or voice contact every 2 hours if they are using a Skull & Crossbone pesticide. Constant voice or visual contact needs to be maintained when handlers are applying or handling a fumigant in a greenhouse. Never try to rescue someone who has passed out in an enclosed area, like a greenhouse, unless you are wearing the correct PPE and breathing equipment.

Mark Your Answer on Your Answer Sheet

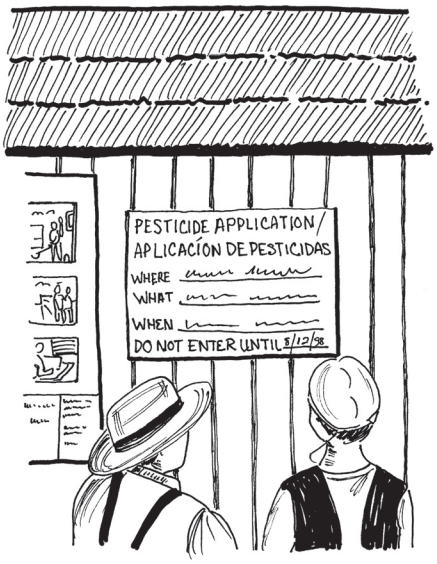
13. T. or F. It is OK to hang a cloth towel as a decontamination supply for employees to dry their hands.
14. T. or F. It is OK for a grower to use a "nurse tank" of water kept on the sprayer for decontamination if there is a back siphoning preventive device.
15. T. or F. The pesticide label includes information such as first aid measures, requirements for PPE, and tells you if protective eyewear must be used.
16. T. or F. A **handler** must have at all times a pint of eye wash immediately available to them; some states will accept fresh bottled water for eye flushing.

Restricted-Entry Interval (REI)

Jim reminded the farmers that the Restricted-Entry Interval or (REI) is the time immediately after pesticides have been applied, when entry into the treated areas is limited. Some pesticides have one REI, such as 12 hours, for all crops and uses. Other products have different REIs depending on the crop or method of application. When two or more pesticides with different REIs are applied, the pesticide with the longer time interval must be followed. Workers are not allowed in the treated area until the REI is over. There are a few exceptions to this rule, but for the most part, no one should enter the area until the REI is over.

Verbal or Written Warnings

VERBAL WARNING



POSTED WARNING

FIELD/GREENHOUSE SIGN

The pesticide label is law. The WPS regulation requires employers to read the pesticide label to know if they must inform their employees verbally, post a warning, or do both (provide a verbal and a written warning).

If a warning sign is required, the sign cannot be posted more than 24 hours in advance and must be removed within 72 hours (3 days) after the end of the REI.

If Sam sprays his corn fields with a pesticide that requires a warning sign, Sam must post a sign at the end of the field or anywhere his workers enter the field.

If Sam sprays a pesticide requiring a warning sign and a REI of 12 hours in his greenhouse while employees are there, he must post the warning sign on the door of the greenhouse so no one enters until after the 12 hour REI is over.

Mark Your Answer on Your Answer Sheet

17. T. or F. A grower under the WPS needs to check the pesticide label to know if his employees must be given a verbal warning or if a warning sign must be posted, or both a verbal warning and sign are required.

18. T. or F. Sam needs to spray a pesticide (requiring a warning sign and an REI of 12 hours) in his greenhouse. If an employee is currently working on the property, Sam must post at the entrance a “No Enter” sign.

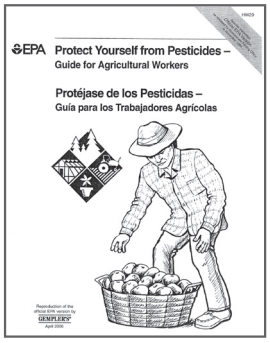
19. T. or F. It is OK for one of Sam’s workers to go back into the greenhouse that was sprayed 8 hours ago.

20. T. or F. It is OK that Sam kept the warning sign up at the entrance of the greenhouse 4 days after he applied the pesticide.

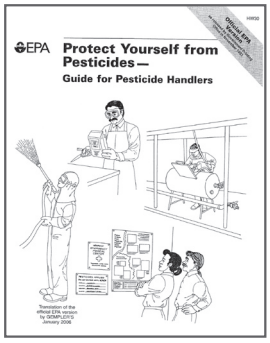
EPA Pesticide Training Options

The day after the farmers' pesticide meeting, Sam got all his employees together and told them they were going to talk about pesticide safety. Sam learned at the meeting that he had several options to choose from to provide employees training. (See the options below.)

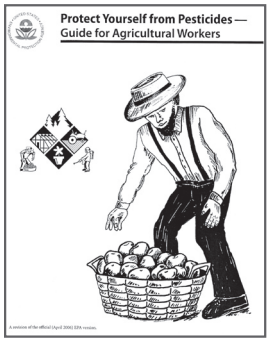
Worker Flip Chart



Worker Handbook



Handler Handbook



Anabaptist Worker Handbook

DVD or Video

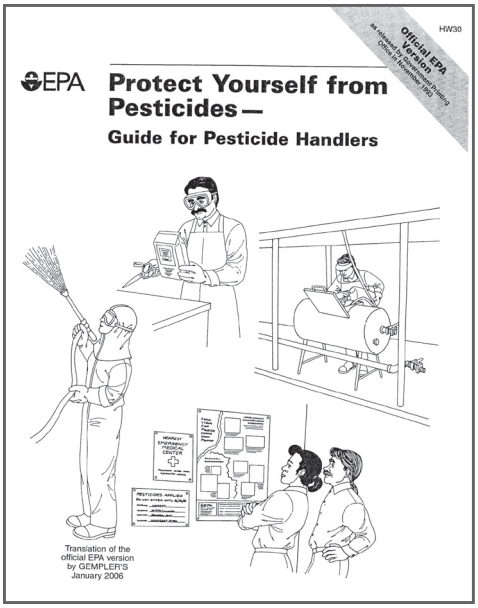
Sam decided to use the new Anabaptist EPA-accepted training booklet to train his workers. He realized that 16 year old Ezra did not have his license and that because he helps to spray and repair application equipment, he would need to be trained as a handler. Sam and Ezra would go over the handler training book right after his other workers went back to their jobs.

During the training, Sam told his employees that, "There are four ways people are exposed to pesticides. The four routes of exposure are: dermal (skin), inhalation (lung), oral (mouth), and through our eyes." Sam stressed, "Remember to wash your hands before eating, chewing gum, drinking, and before using the bathroom." He added, "I found out at the last pesticide meeting that 97percent of all pesticide exposures to those working with pesticides are through the skin. Washing your hands and using the gloves and PPE required by the pesticide label is the best way to prevent exposure to pesticides."

Sam found that the EPA training books made it easy to do the training and it only took 20 to 30 minutes. Sam documented the date of the training and each employee signed their name. He added his signature and certification number on each employee's form. On Ezra's form, he would put a note that he also was provided handler training. As Jim suggested, he put all the signed forms in a folder in the file cabinet. If he was inspected by PDA, the folder would be available.

Sam would not need to train his current employees again for another 5 years, but any new workers would need immediate poster training and the full EPA training prior to the 6th day of work. Sam planned to review pesticide safety each year. Safety was important and he realized that spending 20 minutes each year was time well spent to help his family and employees decrease exposure to pesticides.

Handler Training



Sam and Ezra took 20 minutes to go through the handler training book. They discussed the importance of using the recommended chemical resistant gloves and specified PPE equipment as required on each pesticide label. Sam said, "It is OK to wear more PPE than the label recommends and remember to wash your gloves after use. It is important to wash with soap and water before and after taking your gloves off. You can hang them up to dry on these hooks."

"Leather work shoes will allow chemicals to soak in, so I wear these rubber boots to protect my work shoes. Rubber provides a barrier to both water- and solvent-based pesticides. Remember to wash them with soap and water after applying pesticides and then take them off."

Sam continued, "If I am spraying above my shoulders, I put my sleeves inside my gloves and cuff my gloves to prevent the chemical from going into my gloves. I wear this old straw hat when applying pesticides so I do not contaminate my work straw hat. However, after the last farmer's pesticide training, I learned that pesticides soak into cloth and straw hats, especially around the hatband. The skin on our forehead is extremely absorbent (there is a large blood flow to the head), so wearing a pesticide-contaminated hat will constantly expose the wearer to all the chemicals absorbed into the hatband. I ordered a rubber hat that we can wash with soap and water after use that will be safer and decrease our exposure to the pesticides we are spraying."

He shared with Ezra how to clean the respirator after it is used. He told him to use soap and water, than let it dry. "When it is dry, I put it into a zip lock bag because if we let the respirator lay out in the open, pesticides can get into the filter and ruin the filter. Then I will have to replace the filter and that is a waste of money," Sam said.

Mark Your Answer on Your Answer Sheet

21. T. or F. There are three training material options to choose from to train workers: the EPA training worker and handler handbooks, the EPA flip chart (only for agricultural workers) or the EPA accepted videos or DVD version.
22. T. or F. It is important to document that you provided pesticide training; include the date, employee's signature, trainer's signature, and certification number.
23. T. or F. It is important to train a handler by using the EPA-accepted handler training booklet sometime before the 6th day of work.
24. T. or F. Anyone can provide worker or handler training as long as they themselves were trained.
25. T. or F. Straw hats provide protection from chemicals when spraying overhead.
26. T. or F. Unlined rubber boots will provide a barrier to both water-and solvent-based pesticides.

Proper PPE and Pesticide Storage

Sam showed Ezra his Personal Protective Equipment (PPE) cabinet. He asked Ezra to let him know when any of the PPE supplies get low so he can purchase more. Ezra noticed Sam stored his pesticides in one separate cabinet and in another room, he stored his PPE. Ezra wondered why they could not put the PPE (gloves and respirators) in the same cabinet as the stored chemicals. Sam pointed out a poster he'd just gotten at the last pesticide training. The poster showed how to properly store and how not to store PPE. He explained, "If we store our PPE with the stored chemicals, the inside of the PPE could be contaminated with pesticides."

Do Not store PPEs with chemical/ pesticides.

Keep Personal Protective Equipment (PPE) in a separate area away from your stored chemicals/pesticides.

Mark Your Answer on Your Answer Sheet

27. T. or F. It is OK to store Personal Protective Equipment (PPE) in the same area as stored chemicals.
28. T. or F. It is always OK to wear extra PPE above what the pesticide label advises.
29. T. or F. After wearing a respirator, clean the respirator with soap and water; then after the respirator is dry, put it into a zip lock bag to keep the filter free from pesticide contamination.

Heat Stress and Pesticide Poisoning Symptoms

Sam reminded his employees that he has bottled water available in the cooler so that they can drink plenty of fluids to prevent heat stress. Sam told them heat stress occurs when your body gets overheated, especially when wearing extra PPE protection. When you get overheated, there is less blood available to your brain and muscles. That is why you get weak, have headaches, and feel nauseated. It is important to keep drinking to stay hydrated. Heat stress symptoms and pesticide exposure symptoms are about the same. He showed them the chart below that compares heat exhaustion symptoms to pesticide poisoning symptoms. The shaded areas show where heat exhaustion and pesticide poisoning are similar.

Heat Exhaustion Symptoms	OP/Carbamate Poisoning Symptoms
Sweating	Sweating
Headache	Headache
Fatigue	Fatigue
Nausea	Nausea and Diarrhea
Dry Membranes • Dry Mouth • No Tears • No Spit Present	Moist Membranes • Salivation • Tears • Spit Present in Mouth
Fast Pulse	Slow Pulse
Dilated Pupils	Small or Pinpoint Pupils
Central Nervous System Depression • Loss of Coordination • Confusion • Fainting	Central Nervous System Depression • Loss of Coordination • Confusion • Coma

Sam reminded them that heat stress can be prevented by staying hydrated and by taking time to break. “I want you to do your work, but it is important to take short rest breaks and drink lots of fluids when it is so hot. Since heat stress and pesticide poisoning have similar symptoms, it is difficult to determine what is making a person feel ill. Both pesticide poisoning and heat stress require medical attention,” Sam noted.

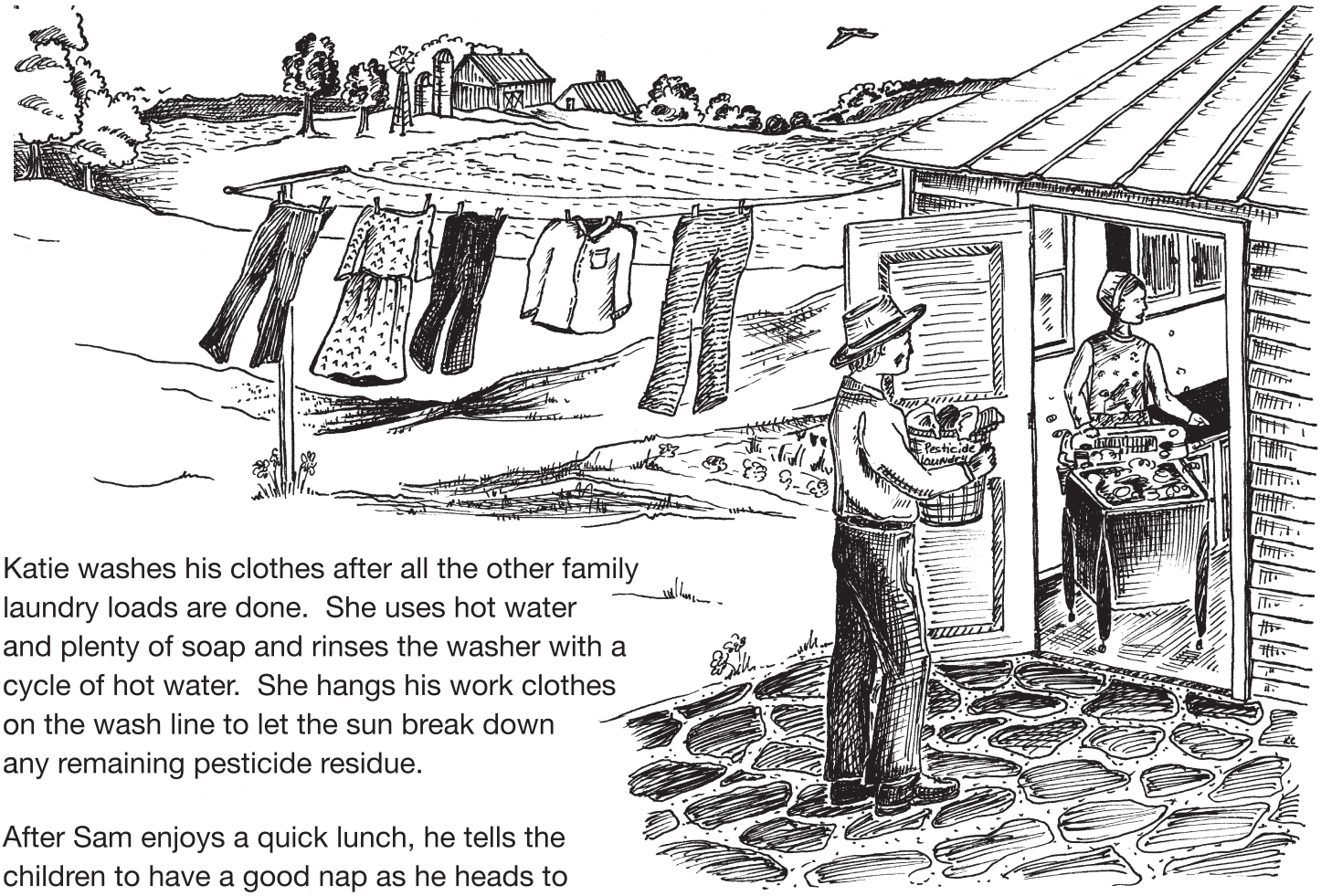
30. T. or F. Heat stress occurs when the body is overheated and there is less blood going to the muscles, brain, and organs causing weakness and decreased alertness.
31. T. or F. Wearing PPE to protect a person from exposure to pesticides increases the risk of heat stress.
32. T. or F. Taking frequent short breaks and drinking a lot of water during a hot day will replace the fluids lost by increased sweating and will help prevent heat stress.
33. T. or F. Symptoms of heat stress and pesticide poisoning share some of the same symptoms and both require medical treatment.

Pesticide Exposure and Pesticide Residue

Sam stops spraying since it was almost lunch time. He walks towards the house. He takes off his shoes at the door. He places them on the porch so he will not track any pesticide residue into the house; his children spend a lot of time playing on the kitchen floor. The children rush towards him and want to hug him. Katie reminds the children to wait until dad gets a shower and changes into clean clothes. She knows that his shirt and pants may have some pesticide residue on them that could rub off on their hands or clothing which may expose them to the chemical Sam was just spraying.

Washing Pesticide Contaminated Work Clothes

After Sam showers, he puts his pesticide-contaminated clothes into an old partly broken laundry basket that they keep just for contaminated clothing. If he did not have the separate laundry basket, he could use a black trash bag. This keeps his contaminated clothes separate from the family laundry.
He immediately takes his basket to the wash house and reminds Katie to wash his contaminated clothes after she finishes the family laundry and to wear gloves when she handles his work clothes.



Katie washes his clothes after all the other family laundry loads are done. She uses hot water and plenty of soap and rinses the washer with a cycle of hot water. She hangs his work clothes on the wash line to let the sun break down any remaining pesticide residue.

After Sam enjoys a quick lunch, he tells the children to have a good nap as he heads to the barn and his horses. His dad and his two younger brothers were planning to come and help him bale hay tomorrow. There was still a lot to do and he needs to finish raking his two fields.

Mark Your Answer on Your Answer Sheet

34. T. or F. It is OK if Sam puts his pesticide-contaminated clothes on top of the family laundry basket rather than a separate basket or in a trash bag.
35. T. or F. Pesticide-contaminated clothes should be washed as the last load, in hot soapy water, and hung in the sun to break down any remaining pesticide residue.

Safety and Health of Family and Employees

After raking the hay fields, Sam feeds the horses and gets the hay wagons ready for tomorrow. The day is almost over and Sam heads towards the house to get ready for supper. He is glad that he can spend some time playing with his children and reading the paper. Sam tells Katie at the supper table that at first, he was not happy to find out that he needed to comply with the WPS regulation. He added, “Since I’ve had some time to think and read about the requirements, I realized that complying with the WPS regulation is a good thing. It did not take a lot of extra time and yes, there were a few changes I had to make, but it all was just really common sense. I’m glad we trained our employees in pesticide safety, put decontamination supplies in place, created a Central Location, and we know we are storing chemicals and PPE safely. I think we are doing what is required by the WPS regulation.” After all, he told Katie, “Safety and the health our family and employees is what really matters in the long run.”

Questions and Answers for the Worker Protection Standard (WPS) Simulation Story

1. T. or F. Worker Protection Standard (WPS) is a state regulation issued by the Environmental Protection Agency (EPA) and is designed to inform, educate, limit exposure, and reduce adverse affects from pesticides for employees.

False - The WPS is a federal regulation issued by the EPA and enforced by both the individual state lead agencies and the EPA. The regulation is designed to ensure that agriculture workers and pesticide handlers have the information and training they need to stay safe from pesticide exposures and decontamination supplies in the event of a pesticide exposure.

2. T. or F. An agriculture worker is someone hired to harvest, weed, water crops, or perform any task in the production of agricultural plants.

True - Agriculture workers harvest, weed, root seedlings, and water crops where pesticides have been applied in the last 30 days.

3. T. or F. The EPA defines a Pesticide Handler as a person employed to mix, load, transfer, apply pesticides or fix pesticide application equipment.

True - Any employee applying pesticides, mixing and loading, cleaning or fixing pesticide application equipment or moving unsealed containers of pesticides is considered to be a handler.

4. T. or F. Agricultural workers are not allowed to apply pesticides, handle open pesticide containers or clean contaminated equipment.

True - Do not give any employee handler duties without first giving the employee handler training.

5. T. or F. A grower is not required to comply with the WPS regulation if they only use general-use pesticides (chemicals found at Lowes, Home Depot, Ag Service, etc.).

False - Any type of pesticide (be it general-use pesticides) will fall under the WPS. If the pesticide has an EPA registration number and an agricultural use statement on the label, it will be under the WPS.

6. T. or F. It is OK for a grower to hire his nephew and not provide safety training since a nephew is exempt from the WPS regulation.

False - A nephew is not immediate family and any employee outside of the immediate family who is compensated in any way and works in a production crop area within 30 days since the end of the last restricted entry interval of a pesticide application comes under the protections of the WPS.

7. T. or F. The WPS defines <u>immediate family</u> as spouses, brothers and sisters, children, step-children, foster children, parents, step-parents, and foster parents.

True - Under the WPS, only spouses, brothers and sisters, children, step-children foster children, parents, step-parents, and foster parents qualify for the immediate family exemption.

8. T. or F. It is OK for someone who has a current Pennsylvania pesticide certification to train workers and handlers.

True - In Pennsylvania, the only acceptable WPS trainer is someone with a current Pennsylvania pesticide certification. Other states might have other options.

9. T. or F. Central Location is a spot that is accessible to all employees.

True - Central Location is a spot that any employee can (without asking their boss) find medical and pesticide information.

10. T. or F. The WPS requires an employer to post the EPA safety poster at the Central Location.

True - Central Location should have a list of pesticide records for the prior 30 days; the required EPA poster has a spot at the bottom to put your local medical facility (which could be a hospital or a doctor) address and phone number. In the bottom right-hand corner, insert the phone number of your state lead agency.

11. T. or F. The WPS regulations require employers to post at the Central Location a list of only restricted-use pesticides used in the last 30 days.

False - All pesticides, whether general-use or restricted-use, should be logged and posted at the central location for employees to review.

12. T. or F. The WPS regulation requires a grower to post a copy of the worker pesticide safety training booklet at the central location.

False - The WPS regulation does not require an employer to post a copy of the worker or handler pesticide training booklets but it is a good idea so that any employee can review the material.

13. T. or F. It is OK to hang a cloth towel as a decontamination supply for employees to dry their hands.

False - WPS requires single-use paper towels. Pesticides can build up on cloth towels even if they are washed.

14. T. or F. It is OK for a grower to use a nurse tank of water kept on the sprayer for decontamination if there is a back siphoning preventive device.

True - As long as the tank is protected from back siphoning by an air gap or other means, the nurse tank water is good to use. Other water can be stored within a 1/4 mile of the application. A handler is to have 3 gallons of water available.

15. T. or F. The pesticide label includes information such as first aid measures, requirement of PPE, and if protective eyewear must be used.

True - The pesticide label is a legal document so be sure to read it and follow it.

16. T. or F. A handler must have at all times a pint of eye wash immediately available to them; some states will accept fresh bottled water for eye flushing.

False - Handlers must have (if the label requires eye protection) at all times a pint of immediately available eyewash (or fresh water in Pennsylvania). The pesticide label is a legal document so be sure to read it and follow it.

17. T. or F. A grower under the WPS needs to check the pesticide label to know if his workers must be given a verbal warning or if a warning sign must be posted, or both a verbal warning and sign are required.

True - Follow the pesticide label instructions.

18. T. or F. Sam needs to spray a pesticide (requiring a warning sign and an REI of 12 hours) in his greenhouse. If an employee is currently working on the property, Sam must post at the entrance a "No Enter" sign.

True - If the pesticide label requires a warning sign and workers are going to be on the property, a sign must be posted at any common entry point.

19. T. or F. It is OK for one of Sam's workers to go back into the greenhouse that was sprayed 8 hours ago.

False - No, the worker must stay out for the entire 12 hours (REI). Eight hours is too soon.

20. T. or F. It is OK that Sam kept the warning sign up at the entrance of the greenhouse 4 days after he applied the pesticide.

False - No, the warning sign cannot stay up for more than 72 hours past the REI termination. The warning sign may not be put up more than 24 hours before and may not stay up for more than 72 hours after the end of the REI.

21. T. or F. There are three training material options to choose from to train workers: the EPA training worker and handler handbooks, the EPA flip chart (only for agricultural workers) or the EPA accepted videos or DVD version.

True - Trainers must use EPA-accepted training materials but they can choose between the EPA training handbooks, the EPA flipchart (just for workers) or the various EPA-approved videos or DVD training materials.

22. T. or F. It is important to document that you provided pesticide training; include the date of the training, employee's signature, trainer's signature, and certification number.

True - Although there is no "official form," it is important to document the required pesticide safety training with the employees name, date of the training, and the name and pesticide license number of the trainer.

23. T. or F. It is important to train a handler by using the EPA-accepted handler training booklet sometime before the 6th day of work.

False - Any new worker would have to receive the full training prior to the 6th day; however, if they were going to work as a handler, they must receive full handler training immediately.

24. T. or F. Anyone can provide worker or handler training as long as they themselves were trained.

False - In Pennsylvania, those who have a current Pennsylvania pesticide certification can train workers or handlers. Use the worker or the handler training EPA-accepted materials when training employees.

25. T. or F. Straw hats provide protection from chemicals when spraying overhead.

False - Straw or cloth hatbands can absorb pesticides and keep the chemical close to the skin, exposing the wearer to the chemicals.

26. T. or F. Unlined rubber boots will provide a barrier to both water- and solvent-based pesticides.

True - Unlined rubber boots will not allow the chemical to soak through to your skin as regular work shoes would. Wearing boots over work shoes prevents pesticide residue from getting onto work shoes and being taken into the house. The barrier on linned boots is probably the same but if a pesticide does get through, lined boots will stay contaminated.

27. T. or F. It is OK to store Personal Protective Equipment (PPE) in the same area as stored chemicals.

*False - The WPS regulation requires PPE to be stored in a clean location and that means **NOT** with the pesticides. It is good to keep PPE close where it would be convenient but it must be stored separately from the pesticides.*

28. T. or F. It is always OK to wear extra PPE above what the pesticide label advises.

True - It is acceptable to exceed the PPE requirements.

29. T. or F. After wearing a respirator, clean the respirator with soap and water; after the respirator is dry, put it into a zip lock bag to keep the filter free from pesticide contamination.

True - Respirators should be cleaned after every use with soap and warm water, dried thoroughly in a clean environment, and stored in a zip lock bag out of the sunlight to prevent the filter from being contaminated from pesticides.

30. T. or F. Heat stress is when the body is overheated so that there is less blood that goes to the muscles, brain, and organs causing weakness and decreased alertness.

True - Heat stress covers two conditions:- heat stroke and heat exhaustion, and it is good to post symptoms of both conditions at your Central Location.

31. T. or F. Wearing PPE to protect a person from exposure to pesticides increases the risk of heat stress.

True - Wearing PPE on a hot day can lead to heat stress. You still must use the label-required PPE but take steps to avoid heat stress.

32. T. or F. Taking frequent short breaks and drinking a lot of water during a hot day will replace the fluids lost by increased sweating, helping to prevent heat stress.

True - Drinking additional water and taking more breaks out of the sun can help avoid heat stress. There also are other steps you can take such as working earlier in the day before it gets too hot. Wearing a cool vest can help you maintain your cool and wearing lighter colored clothes can be helpful too.

33. T. or F. Symptoms of heat stress and pesticide poisoning share some of the same symptoms and both require medical treatment.

True - It would be very easy to confuse the two illnesses but both require medical attention. It would be helpful to keep the symptoms of both conditions posted at your central information location although it is not required by the regulation.

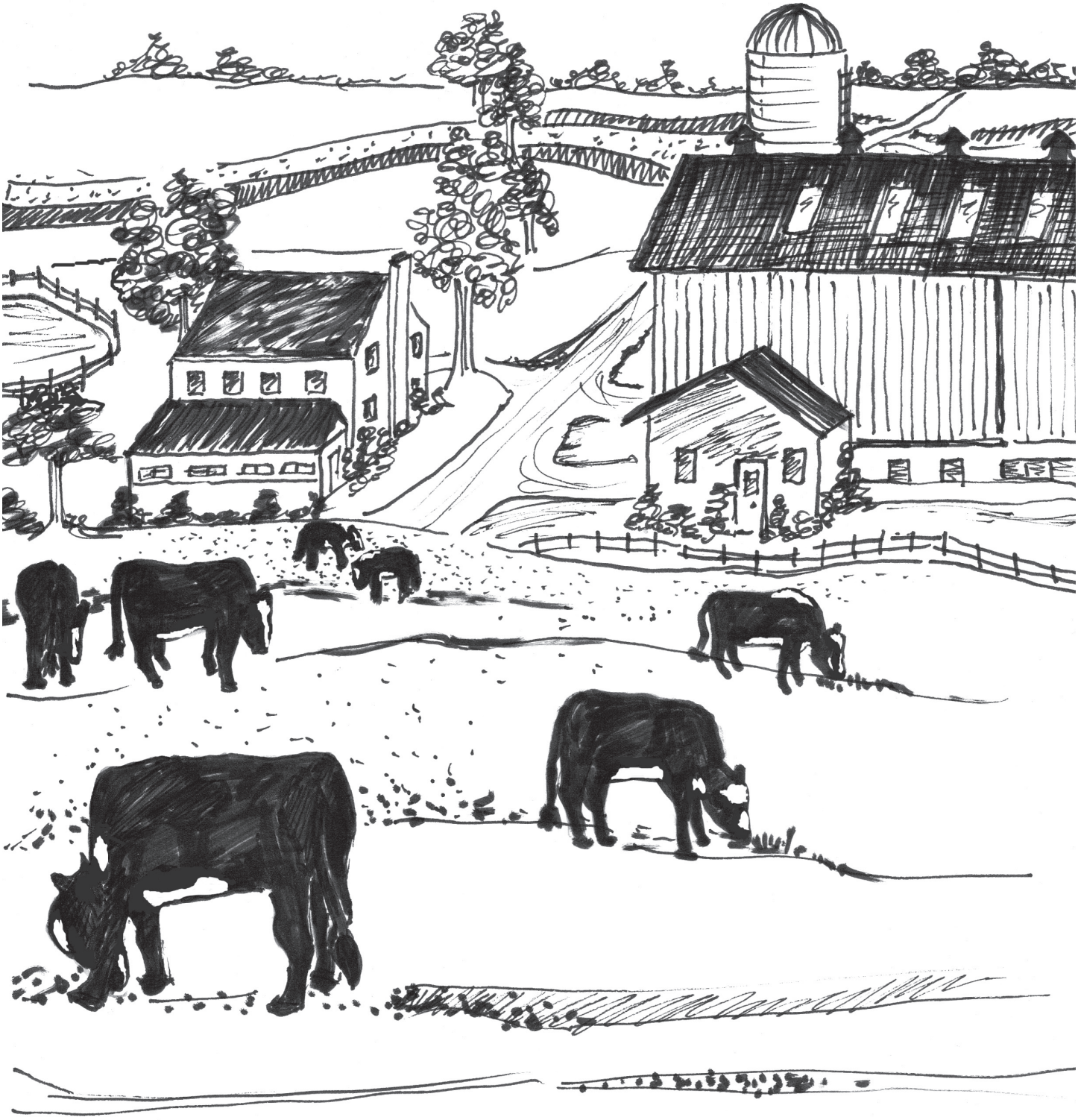
34. T. or F. It is OK if Sam puts his pesticide-contaminated clothes on top of the family laundry basket rather than a separate basket or in a trash bag.

False - Sam needs to keep his pesticide application clothes completely separate from the family laundry and should never mix them with the family laundry. Pesticide residue can contaminate the family laundry.

35. T. or F. Pesticide-contaminated clothes should be washed as the last load, in hot soapy water, and hung in the sun to break down any remaining pesticide residue.

True - Always wash pesticide-contaminated clothing in hot soapy water as the last load. Rinse the wash tub with a cycle of hot water and hang the clothing on the wash line so that the sun can break down any leftover residue.

Beef and Crop Farming Chemical Safety Story



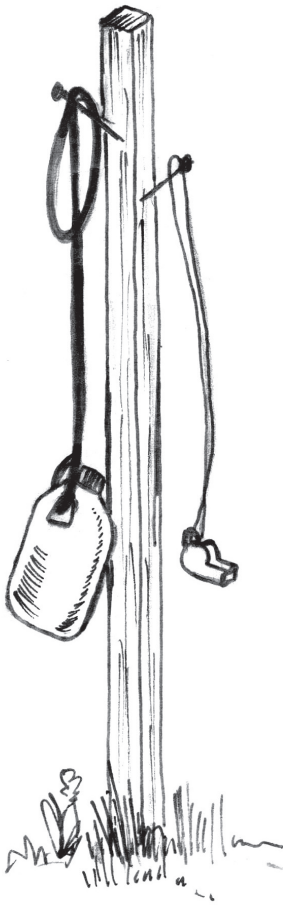
Paul and Lois's 300 Acre Beef Farm

This is a story about a young Mennonite farmer (Paul) and his wife (Lois) who recently purchased an old 300-acre dairy farm. They were renting an 80-acre farm and now plan to raise 100 beef steers and some sheep. Paul will grow 200 acres of corn, hay, some wheat and oats, and a few acres of tobacco. Paul has his private applicator's pesticide certification and he does all of his own spraying. Pesticides (insecticides, herbicides, and fungicides) are used to control and destroy pests to prevent unwanted insects, weeds, and fungi. Lois will be kept busy with the house, caring for the children and feeding the small calves and sheep. The six older children will help with the many chores, but the two youngest children (3-year-old Samuel and 1-year-old Rebecca) need to be watched. When there is free time, they all look forward to fishing and swimming in their one-acre pond near the house.

Paul and Lois are happy that the pond is fenced and within line of sight with the kitchen window (usually the busiest part of the house). They know that small children can wander off, and ponds that are out of sight can still be found by small children. The fenced pond should discourage their children from entering the area, but it is not a guarantee that a child or visitor will not drown. The family had never lived that near a pond before, and Paul and Lois knew that children can drown in a water trough, a pool, a bucket, a stream, the bathtub, toilet, manure pit, abandoned well, and small fish ponds.

During supper one evening, one of the children talked about how much fun it will be to swim in their new pond when they move. Paul said, "I agree it will be fun to fish and to swim in the pond, especially after a hot day in the fields. However, I am afraid that someone might fall into the pond and not be able to get out. Can anyone think of what we could do to prevent someone from drowning?"

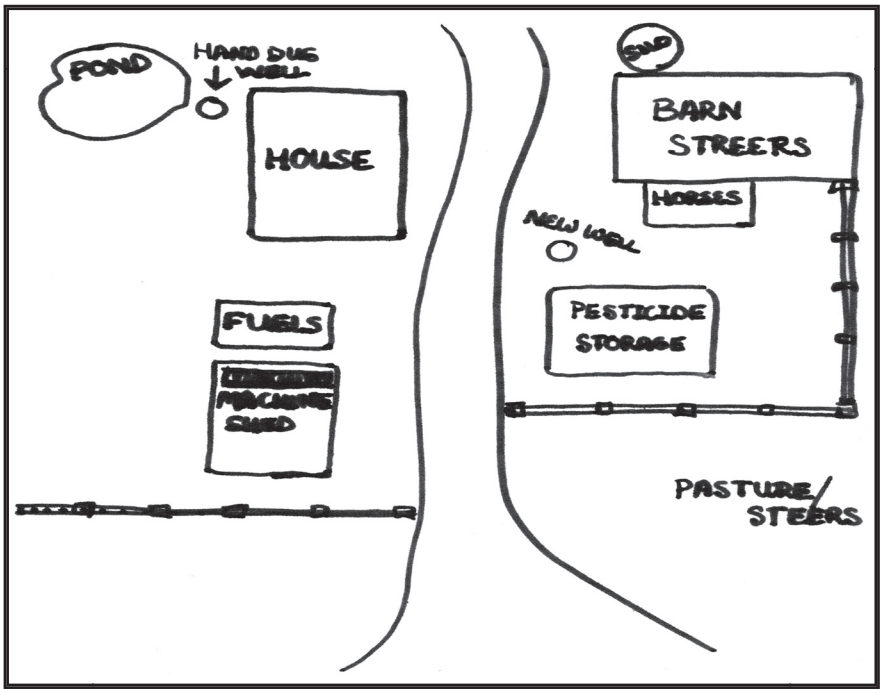
The children each had some good ideas: always wear a life jacket when swimming or fishing, keep the gate to the pond closed and locked, never fish or swim alone, and always let mom know where you are going. One of the oldest children added, "I think we should put this list of water safety rules on our refrigerator. It will remind me to think safety." One of the other children said, "I learned at school how to make a "heaving jug" out of an empty gallon water bottle. You put a little sand in the bottom. Then tie a rope on the handle and tie the other end of the rope to a pole or tree branch. Then the jug can be thrown out to a person in an emergency to pull them to safety." Paul added, "Another thing that we can hang on the pole with the heaving jug is a whistle. If there is an emergency, blow three short blasts on the whistle, wait a second or so and repeat until help arrives, but only for an emergency."



Keep heaving jug and emergency whistle near the pond

Repairs and New Buildings

Paul took time to map out the new farm. He marked the location of the barn, house, pond, well and where the animals would be located. He clearly identified where the fuel tanks, pesticide storage and other hazards would be located. He planned to share this information and map with his local fire and emergency medical services (EMS). That way in case of an emergency or a fire, the responding firemen and EMS personnel would know the location of the hazards (pesticides and fuels) on his farm.



Land map of Paul and Linda's new farm

Since Paul's parents lived just down the road about 1 mile, they have been spending a lot of their time helping to make all the repairs. The barn had not been used for milking for a long time and needed a lot of changes to accommodate steers and calves. The house needed some repairs. There was no horse stable, buggy storage shed, machine shed large enough for his steel-wheeled tractor and machinery, and no covered fuel storage area. He did find a rather small storage area, attached to the barn where the previous farmer stored his pesticides. The storage area was run down and Paul planned to build a new pesticide storage shed and cement mixing pad.

Hand Dug Well

The previous owner told them that the well on the farm was a hand dug well, and sometimes it would go dry in the summer. The well was located on a slope between the house and the pond. Paul knew that hand-dug wells are usually shallow wells (dug only slightly below the water table) whereas drilled wells may be 1,000 feet deep. Hand-dug wells not only go dry quicker, but are more susceptible to contamination. Paul and his dad (Jake) had a concern about how much water they would need for their family and for all the livestock. Would the old well provide them with all the water they would need to run their home and farm?

Jake decided to call Penn State Extension, and he talked with Tom a regional water educator. Tom made a farm visit the next day and after touring the farm and seeing the location of the existing well, they all sat down to look at the map and to think about some options. Tom told them that each family member will use about 60 gallons of water a day, and the animals will use somewhere between 8-10 gallons per day. After doing some math, they found out they would need over 2,100 gallons per day. Since the well does go dry and the location is on the down slope to the pond, one option would be to drill a new well. They discussed the best site for a new well, and Tom left them with some educational articles including a new booklet 'What's in Your Well?'. Paul and Jake planned to do a lot more reading about water issues and to think about what would be their best option.

A New Well and Concrete Pad

After Paul and his dad took time to read and discuss the information that Tom left them, they decided to drill a new well. The well would be located about 200 feet up-hill from the new pesticide storage shed. The well would be on higher ground between the house and barn, and 200 feet was far enough away from the pesticide storage shed to prevent well water contamination. They also planned to build a concrete mixing and loading pad.

Mark Your Answer on Your Answer Sheet

1. T. or F. The fence around the pond will help prevent a child or visitor from drowning but is not a guarantee.

2. T. or F. A family of ten uses 600 gallons of water per day.

3. T. or F. Hand dug wells are more prone to contamination and going dry than drilled wells.

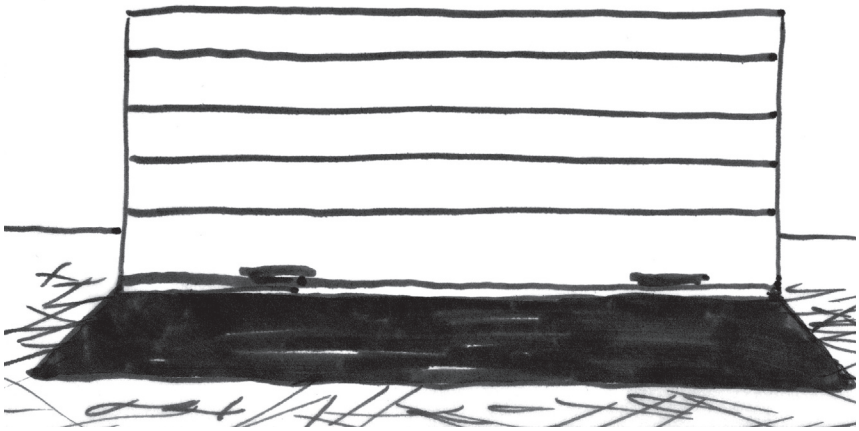
4. T. or F. It doesn't matter where the pesticide storage shed is located as long as you have a concrete mixing and loading pad.

Moving into Their New Home and Farm

It took several weeks of hard work for Paul and his dad to get their new farm and home ready for them to move into. Paul fenced off an area for the horses and the cattle to graze, built a horse stable, a new buggy shed, and a new fuel storage area. He moved the fuel tanks near his new machine shed (50 feet from the building). He knew that flammable fuels can explode if located too near a building (if the building would catch on fire). He also put the tanks inside a sump to protect the groundwater in the event of a leak. Finally, he put a roof on the structure (to protect the fuel tanks from the sun) and enclosed the tanks with a fence to keep his children out. Paul knew that even small children try to turn the handle, and he knew that only a mouthful of gasoline could be fatal. He also left enough room so a bulk storage tank could be safely stored and protected. After the new machine shed was completed and the kitchen and laundry room repairs were finished, they moved into their new home and farm. That was an exhausting day, but they had a lot of good friends who helped them.

Barn Repairs Including a Hay-Hole Cover

It was the 1st week of April and Paul's dad (Jake) had just arrived to help clean and make repairs on the top floor of the barn. Paul and Jake had already replaced some of the upper floor boards that were missing and/or were rotten. Then they stacked some old hay and straw bales. Jake found some wood and made a wooden cover to put over the hay-hole that went down into the steer stable. The cover did not take long to make and would help prevent everyone (especially the children) from sustaining a serious injury.



Jake and Paul knew many children and some adults who were slightly and/or severely injured because they fell down a hay-hole. Jake wanted to prevent children and adults (his family and friends) from head trauma and/or bone fractures by making a solid cover for the hay-hole. It only took about 15 minutes to make. He told Paul, "If this cover prevents just one of my grandchildren from falling down the hay-hole, it will be well worth my time and the few dollars it cost to make."

Pesticide Shed Planning Over Lunch

It was almost lunch time when Paul and his dad finished making the repairs on a storage area where he planned to keep his grinder mixer and feed supplement. The next job was to clean up the cluttered chemical storage area. Paul had been putting that job off for the last few weeks; he was not sure what they might find in all that clutter. Paul was getting hungry and even though it was early, he suggested that he and his dad go in for lunch. Besides, he was not that anxious to clean up the cluttered storage area. They walked slowly to the house and got washed up for lunch.

During lunch Jake said, "I'm glad that we are almost finished building the new pesticide storage shed. The old storage area was way too small and in bad shape. It is better to have pesticides stored in a separate building (not attached to a building, as this one is to the barn). If we kept it the way it is and the barn was to catch on fire, there would be a lot of toxic vapors and smoke produced that could harm your family and/or the animals. The fire department may need to call the county Hazmat team to provide technical expertise in helping put out a fire that involves burning pesticides."

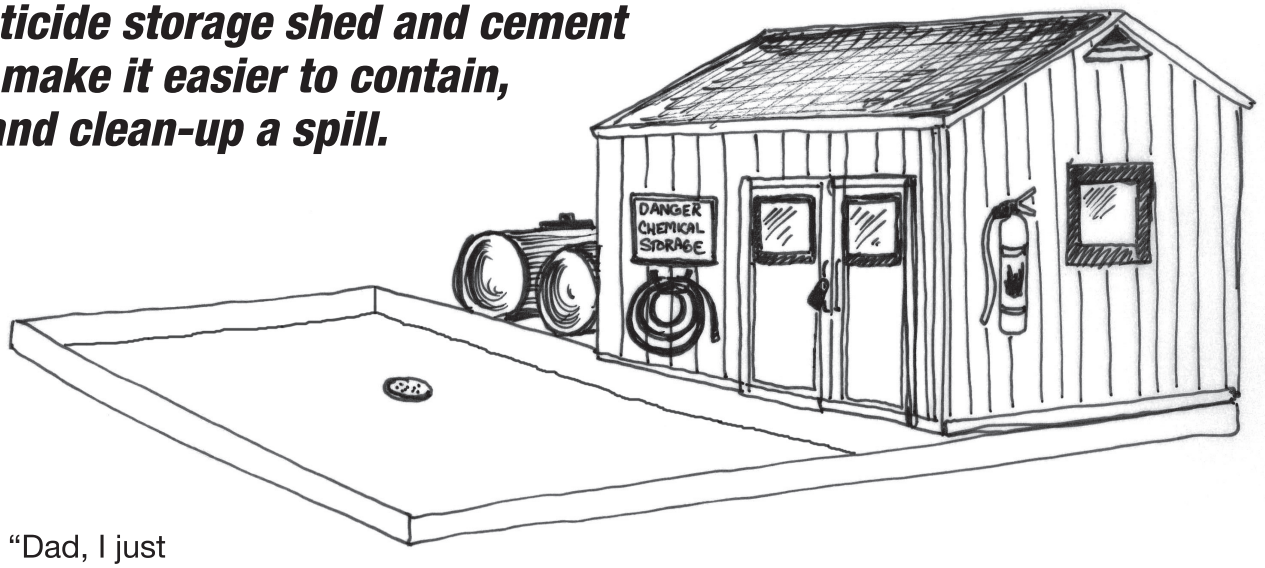
Paul added, "I am glad that you suggested that we create a land map of our farm layout (pond, well, pesticide shed and location of the fuel tanks). Yesterday, I took the map over to our volunteer fire department for them to keep on file. If there were a fire here on the farm, I know that the map will be helpful to the fire responders to save more property and may help protect their lives because the firemen will know where the pesticides are stored."

Lois said, “Well, I think building a new pesticide storage shed was a good decision and I am glad it is located 200 feet from our new well. I know you will be mixing and loading the sprayer many times each year. I have heard that pesticides spilled on the ground can contaminate well water. Someone told me depending on the pesticide, a well can be contaminated for many years, and we don’t want our family and the animals to be exposed to contaminated water.”

Paul added, “You’re right, that’s why adding a cement floor and sump was important to me. They say that more chemical spills occur when mixing and loading pesticides than during field application. I heard that even small spills that happen (over and over) can contaminate well water, and with 300 acres, I will be doing a lot of mixing and loading.”

Jake said, “Well, it just makes sense to spend a little more for a cement pad that protects the environment and reduces the family’s exposure to pesticides. You can open up the doors and park your sprayer on the cement pad to mix and load. If you have a spill, the drain (which can be closed off) and the cement pad, will make it easier to contain, control, and to clean-up the spill. I am glad that I can help you pay for some of the new changes; it would be difficult for you to pay for everything. My father helped me get started farming, and now it’s my turn to help you and your family.”

New pesticide storage shed and cement pad will make it easier to contain, control and clean-up a spill.



Paul added, “Dad, I just hung a 10 lb. ABC fire extinguisher on the new pesticide shed. There is a water hose right there in easy reach, ready to flush off any chemicals I might get on my skin, eyes, or clothes. Jake asked, “Did you put a lock on the door and a “Danger Chemical Storage” sign on the shed?” Paul reassured his dad that he did that even though he knew that there were no regulations requiring him to do so. He thought it was important to have a “Danger” sign and a lock on the door to prevent his children from being exposed to pesticides. He added, “I know the firemen and rescue personnel have a copy of our land map, but having a sign on the shed will be an additional help for them to identify where pesticides are stored.”

Pesticide Storage Cabinet Arrives

"Oh! Dad, I forgot to tell you, Yesterday the new metal pesticide storage cabinet came. It was a good choice to have a cabinet with metal shelves; if a chemical leaks, the shelves will not absorb leaking chemicals like wood shelves would. Like you suggested, I put the liquid chemicals in a plastic tray on the bottom shelf. The granular and dry chemicals fit nicely on the top shelf."

Paul put the liquid containers on the bottom shelf in bins and dry chemicals on the top shelf.

Paul and Jake enjoyed the hot soup, homemade bread, applesauce and a big piece of apple pie before they had to get back to work.

Mark Your Answer on Your Answer Sheet

5. T. or F. Hay holes in the barn do not need to be covered as long as you show children the location.

6. T. or F. It is dangerous to create sparks, light a match, or burn trash close to where pesticides are stored since pesticides may be flammable.

7. T. or F. It is recommended to store granular or dry chemicals on the bottom shelf with liquid pesticides on the top shelves.

8. T. or F. Storing liquid pesticides inside a plastic bin makes cleaning up a chemical leak easier.

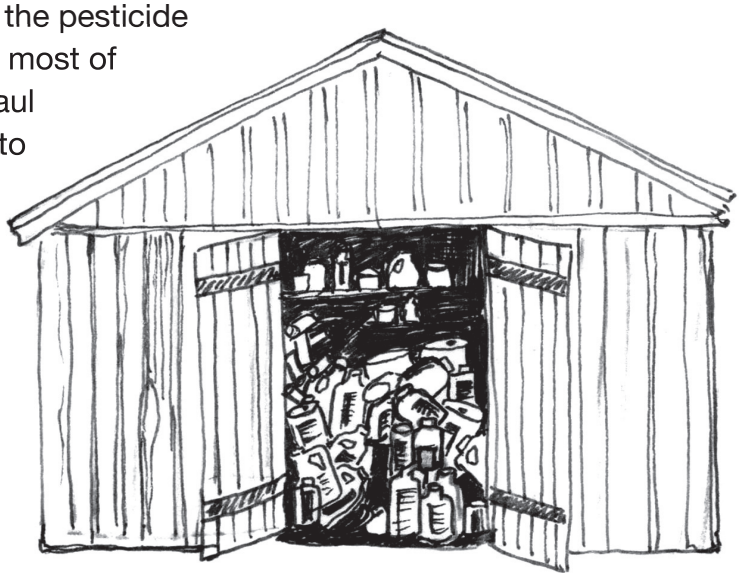
9. T. or F. More pesticide spills occur while spraying the chemical on crops than when mixing or loading a sprayer.

10. T. or F. Well water can be contaminated by spilling small amounts of pesticides repeatedly on the ground.

11. T. or F. There are no regulations requiring a lock or a "Danger Stored Chemical" sign to be placed on the door of pesticide storage areas.

Old Leftover Pesticide Bottles

Now that lunch was over, Paul and his dad headed towards the barn. When Paul and Jake opened the doors to the old chemical storage area, they weren't sure where to start. There were so many old empty plastic pesticide containers. Many of the pesticide bottles had some of the chemical still inside and most of those did not have the label on the container. Paul realized that without the label there was no way to know what chemical was inside the bottle.



Many bottles were empty and some containers still had a little chemical inside.

Paul looked at his dad and said, "Dad, what should we do with these bottles? Some of them still have some kind of chemical inside and many do not have a label on them to tell us the contents of the bottles. Look at all these empty pesticide containers, piled up here in the corner of the shed. What can we do to clean this all up? Can we burn them?"

Jake replied, "No, burning isn't the thing to do. I remember when I was first farming, a neighbor farmer told me he purchased a farm and found left-over chemicals in some of the pesticide containers that the previous owner had left. The farmer shared that he decided to burn the bottles on a trash pile, but he admitted, That did not work very well because when the bottles burned, the chemicals just ran out of the containers."

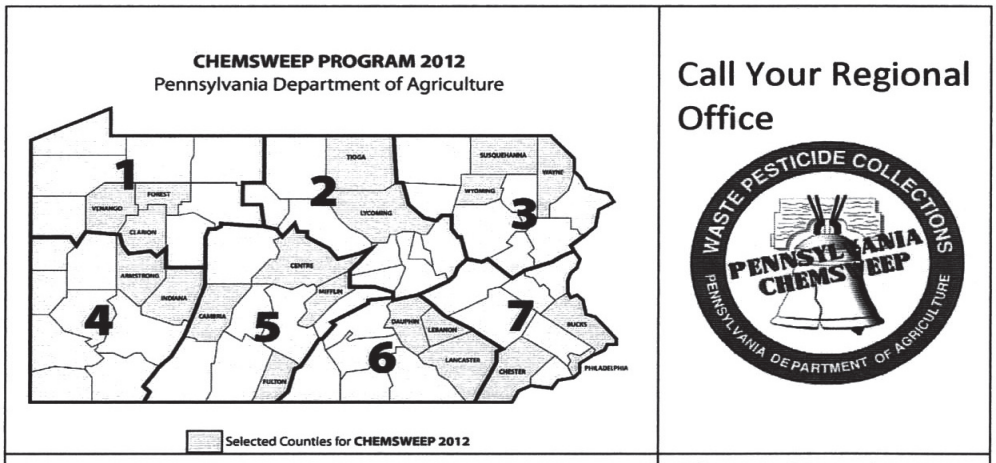
Paul said, "Then the chemicals soaked right into the ground, which may have contaminated his ground water." Jake added, "Exactly, and remember burning pesticides can produce toxic vapors that can harm your family and/or the animals." Paul asked, "Ok, if we can't burn the containers, how shall we clean up this area? What do we do? We can't just leave them here cluttering up the shed or be in easy reach of the children. I don't want them to be exposed?"

CHEMSWEEP Program

Jake said, "Let me call the extension office. I will be right back." Jake soon returned and reported that one of the educators told him Pennsylvania has a program called CHEMSWEEP. Paul said, "CHEMSWEEP, what is that?" Jake replied, "CHEMSWEEP is a program that helps farmers or any citizen to dispose of cancelled, suspended or unwanted pesticide products legally and generally at no cost unless they have large quantities over 2,000 pounds."

Jake added, “The educator told me that even the bottles without a label can be disposed of in CHEMSWEEP as long as we are sure it is a pesticide.” He also said, “Anyone wanting to participate in CHEMSWEEP can call their Cooperative Extension office or the Pennsylvania Department of Agriculture’s (PDA) regional office to apply. He mentioned that each year different counties can participate, and this year our county is included.”

Jake continued, “I remembered on the way back from the phone that I had this CHEMSWEEP hand-out in the buggy. I must have picked it up at the last extension meeting. Looks like we are in region 6 and here is the phone number (717-346-3223) we should use to call with questions or to sign up.”



Call Your Regional Office

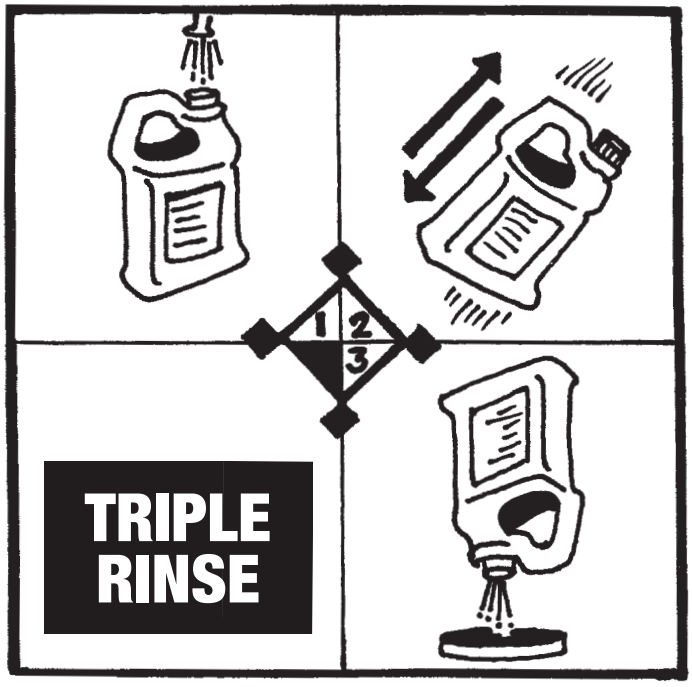
	Phone Number
Region 1	814-332-6890
Region 2	570-433-2640
Region 3	570-836-2181
Region 4	724-443-1585
Region 5	814-946-7315
Region 6	717-346-3223
Region 7	619-489-1003

Recycle Pesticide Containers

Paul said, “Did you ask about what we should do with all the empty containers?” Jake said, “The educator told me if the containers are clean on the outside and inside (tripled-rinsed or pressure-rinsed), they can be taken to our local recycle dealer.”

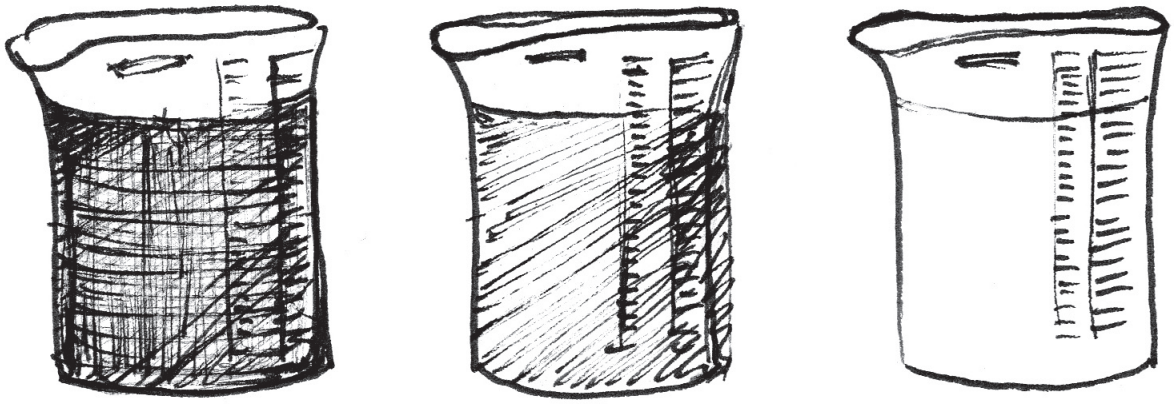
Paul added, “Dad, what do they mean by ‘triple-rinsing pesticide containers’?” Jake answered, “I found this **‘How to Triple-Rinse Your Containers’** fact sheet attached to the CHEMSWEEP information. Let’s take a look.” Jake and Paul took a few minutes to review the steps to triple-rinsing pesticide containers.

How to Triple-Rinse Your Containers:



Steps for Triple-Rinsing Empty Pesticide Containers

1. Wear your PPE
2. Drain bottle into sprayer
3. Fill with water 1/4 full
4. Replace lid and shake in all directions
5. Drain rinse water into spray tank
6. **Repeat process 2 more times**
7. Spray off the outside of the container until clean
8. Take triple rinsed containers to a dealer participating in container recycling.



Beaker 1 ***Beaker 2*** ***Beaker 3***

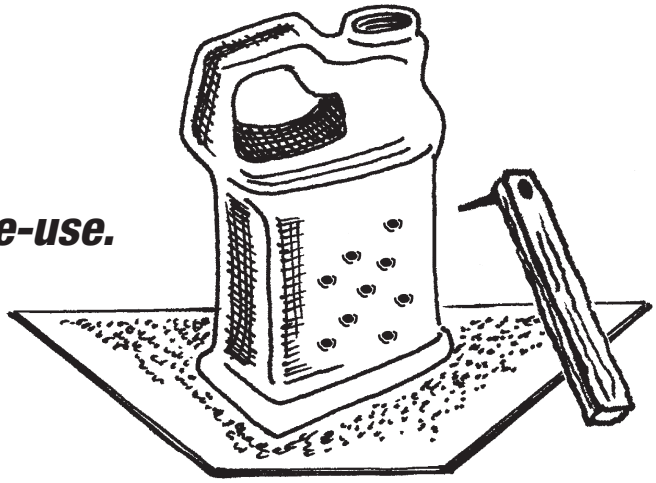
Beaker 1—amount of residue left after the first rinse

Beaker 2—less residue is left after the second rinse

Beaker 3—minumin residue left after the third rinse

Paul continued reading, “Look, the fact sheet says that if you triple-rinse containers be sure to punch holes into the empty containers with a homemade tool (a nail and a 2 X 2 board).”

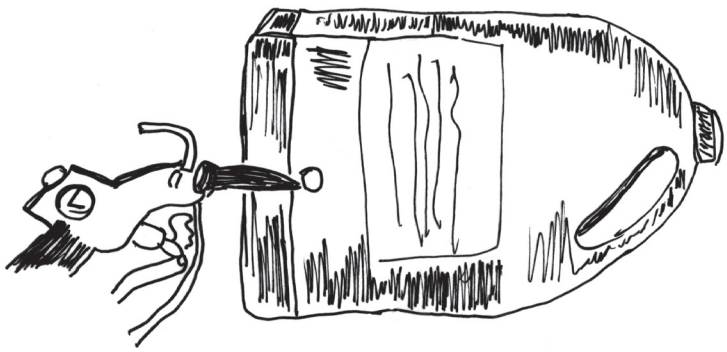
A homemade tool can punch holes to prevent re-use.



Pressure-Rinsing Containers

Jake read out loud, “It says that you can pressure-rinse containers by using a special nozzle or tool attached to the rinse hose to force the remaining pesticide from the container. The attached tool will punch a hole in the container that will prevent anyone from using the container for another use.

Pressure-Rinsing containers.



Pressure-rinsing can be used with plastic or non-pressurized metal pesticide containers and may be faster and easier than triple-rinsing.”

Recycle Container to Make Useful Products

Jake added, “Looks like the next step after the containers are triple-rinsed or pressure-rinsed, is to discard the caps and label books and take the containers to a local recycle dealer for recycling. The triple-rinsed bottles

On their way to the recycling center.

will be chipped into small pieces and used to make other useful products such as: industrial pallets, agriculture drain pipe, speed bumps, parking stops, hazardous waste drums, scaffold nailing strips, commercial truck sub-floor support members, dock and sea wall pilings.”

Paul added, “If we don’t take the pesticide containers to a recycle dealer, the bottles take up room in a landfill or clutter up the barn like this shed. You know dad, (since these bottles are so old) before I load them all up into the buggy, I think I will call our recycle dealer and find out if he will accept the bottles. If not, then we will need to dispose of them by using CHEMSWEEP.”

Jake added, “Good idea, you might save yourself a lot of work. Good thing the educator attached the Plastic Pesticide Container Recycling Program (PPCR) dealers. Look, here is the phone number you need.”

Check with your State's Agriculture department if You are not a Pennsylvania resident.

Commonwealth of Pennsylvania

Plastic
Pesticide
Container
Recycling Program

Department of Agriculture

PPCR Partner Recycling Sites

Please call your nearest PPCR Partner to obtain their business hours before going. Only clean, rinsed #2 HDPE plastic pesticide containers will be accepted. Updated recycling site lists will be made available through your PDA Regional office, County Penn State Extension Office, or at www.agriculture state.pa.us (search Programs, then Plastic.....)

PDA Region 1

Erie	John Deere Landscapes	814-455-7850
Lake City	Neiger Milling	814-774-3703
Meadville	Ernst Conservation Seeds	814-720-0819
North East	North East Fruit Growers, Inc.	814-725-3705
Sandy Lake	Lakeview Fertilizer	724-376-3615
Shippenville	J & J Feeds	814-226-6066
Tionesta	Long Acre Potato Farm	814-744-8454
Waterford	Team Turf Supply	814-796-8873
Waterford	Troyer Farms	814-796-1435

PDA Region 2

Jersey Shore	Eck's	570-398-2770
Kreamer	Kreamer's Feed Store	570-374-8148
Leck Kill	Steve's Custom Application	570-648-4465
Mifflinburg	Mifflinburg Farmer's Exchange	570-966-1001
Mill Hall	Webb's Super-Gro	570-726-4525
Washingtonville	Crop Production Services	570-437-3121

PDA Region 3

Columbia Crossroads	Judson's, Inc.	570-297-2153
Montrose	Andre & Son	570-278-1131
Montrose	Palmatier Enterprises	570-278-3350
Towanda	GROWMARK FS, Inc.	570-265-8141

PDA Region 4

Adrian	GROWMARK FS, Inc.	724-543-1101
Eighty Four	GROWMARK FS, Inc.	724-222-4303
Volant	Deerfield Farms Service	724-946-3551

PDA Region 5

Bedford	GROWMARK FS, Inc.[1]	814-623-9061
Bellefonte	GROWMARK FS, Inc.	814-359-2725
Belleville	Ag Star Agronomy	717-935-7401
Belleville	Union Mill Chemgro	717-935-2185
Clearfield	W & W Farm Supply	814-765-9044
Curryville	GROWMARK FS, Inc.	814-793-3664
Port Royal	Ag Star Agronomy	717-527-4306
Somerset	GROWMARK FS, Inc.	814-445-5177
Thompsontown	Agronomy Center	717-535-5151
Warriors Mark	Helena Chemical Comp.	814-632-5177

PDA Region 6

Biglerville	Helena Chemical Comp.	717-677-4599
Brogue	GROWMARK FS, Inc.	800-787-0136
Carlisle	GROWMARK FS, Inc.	717-249-4988
Codorus	GROWMARK FS, Inc.	717-229-2311
East Berlin	GROWMARK FS, Inc.	717-259-9573
Elizabethville	PACMA/Upper Dauphin Grain Ctr	717-362-8440
Ephrata	Henry B. Hoover Agway	717-733-6593
Gettysburg	Ag Com, Inc.	717-334-6224
Gettysburg	Ag & Natural Resource Center[2]	888-337-9827
Greencastle	Horstdale Farm Supply	717-597-5151
Harrisburg	John Deere Landscapes	717-652-5813
Harrisburg	PA Dept. of Agriculture[1]	717-705-5858
Kinzers	Mr. Gideon King	no phone
Lancaster	John Deere Landscapes	717-291-4434
Lancaster	Mel Weaver & Sons	717-898-9050
Leola	Daniel's Farm Store	717-656-6982
Millerstown	N.O. Bonsall & Son	717-589-3146
Mt. Joy	Snyder's Crop Service	717-653-1120
Myerstown	GROWMARK FS, Inc.	717-866-5205
Myerstown	James Patches	717-949-3860
New Holland	Martin's Ag Service	717-354-4996
New Holland	Raymond Nolt	717-354-0198
Quarryville	Little Britain Ag Supply	717-529-2196
Shippensburg	Cumberland Valley Coop	717-532-2197
Shiremanstown	John Deere Landscapes	717-761-2463

PDA Region 7

Bangor	GROWMARK FS, Inc.	610-588-1095
Bethlehem	John Deere Landscapes	610-866-6665
Cochranville	GROWMARK FS, Inc.	610-869-8006
Coplay	GROWMARK FS, Inc.	610-799-3115
Leesport	GROWMARK FS, Inc.	610-926-6339
Reading	Timac USA, Inc.	610-375-7272
Richland	Ag Land Crop Protection	717-933-7000
Tamaqua	Mountain Road Chemicals	570-277-0146

[1] Please call before going.

[2] Go to the Solid Waste and Recycling Office. 12/21/10

Disposing of the Empty Containers

Paul took the fact sheet with him to the phone and he dialed the dealer's number. He was advised he could bring in one bottle for them to verify that it is recyclable, but if he brought all of them in and they were not cleaned and rinsed properly, he would have to keep them and dispose of them through CHEMSWEEP.

Paul thought that the bottles looked clean and rinsed so he decided take them all at one time. He decided to use the farm wagon (the wagon would hold more containers) and that way he could make one trip. Soon Paul was on his way.

On the way to recycle the containers.

When Paul returned, his dad was glad to see the wagon was empty. Paul said, "Next, I will call and talk with CHEMSWEEP. I'll be right back, dad." Paul called the CHEMSWEEP office. He was told that they would send someone out to sample the unlabeled bottles (identify what pesticide was in the container), and then at another date someone would return to pick up the containers and dispose of them.

So, Paul and his dad gathered up the bottles with the chemicals inside and put them into plastic trays (just in case they started leaking). Paul told his dad, "I think we should lock them up in that old wooden cupboard (left by the previous owner) until CHEMSWEEP can come to pick them up. We can't leave them here where the children might find them and be exposed to the pesticides." His dad said, "That sounds like a good idea."

It took the rest of the afternoon to sweep up and dispose of all the other trash that had accumulated over the many years. My, how good it looked and how happy Paul was that the storage shed could now be used as a workshop and for tool storage.

Mark Your Answer on Your Answer Sheet

12. T. or F. You can take empty pesticide containers to a pesticide container recycling center after shaking and rinsing them out two times.

13. T. or F. Citizens of Pennsylvania can use a program (CHEMSWEEP) to legally dispose of unwanted pesticides with little or no cost or questions.

14. T. or F. Only pesticides that can be identified as a specific product can be disposed of in the CHEMSWEEP program.

Safety Program at School

It was 3:30 in the afternoon when Paul and Jake saw the children walking in the lane from school. The children were not hard to see because they were wearing lime green safety vests. They ran to the barn to say hello to their dad and grandpa before going into the house. They were all talking at one time, so Paul asked them to slow down and tell him why they were so excited.

Daniel said, "We had a special 'Farm and Home' safety program at school today. The educator (Kay), came to talk about farm, home, and road safety."

Paul asked, "Where did you get the safety vests you are wearing? They fit you just right!"

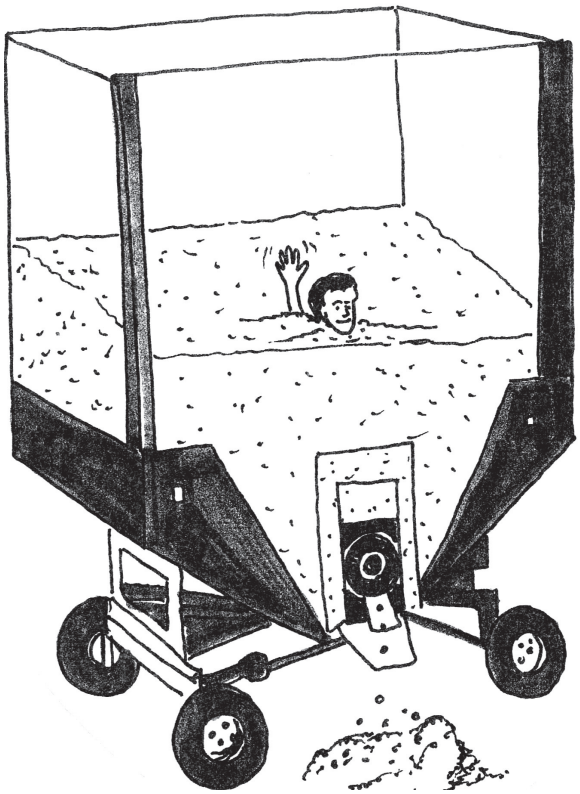
Henry answered, "Many Amish and/or Mennonite youths and adults helped cut and sew all the vests. They made three sizes (small, medium and large). We learned a lot about road safety today. When we wear these reflective vests, we can be seen 500 feet away. The car lights will shine on the reflective tape and reflect back to the driver so the driver can see us walking or riding on the road. I plan to wear mine whenever I walk or ride my bike on the road."

Jake said, "It's good you have vests that fit you. Make sure you wear your vest when you are on the road driving your pony cart. Pony carts are harder for drivers to see because they are lower and closer to the ground than a buggy. We use the SMV emblem and the orange 6 foot Carty (bicycle) flag to help vehicle drivers see your pony cart. Wearing your vest will really make you even more visible to the drivers."

Mary added, "We also saw some real farm pictures and one of the posters showed a child riding on the fender of the tractor with her dad. Kay told us just as you do, that being an extra rider is not safe to do. We should remember to follow the "One Seat, One Rider" rule."

Susan said, "Kay also had a grain wagon and the front of the wagon was clear. We could see the corn inside the wagon. The educator put a small wooden toy figure on the top of the corn. She then pulled up the door at the bottom of the wagon allowing the corn to spill out onto the table. As the corn came out, the wooden toy figure was pulled down into the corn."

Don't go into a grain wagon; you can sink in a few seconds.



Mary said, "It only took a few seconds for the wooden toy figure to sink under the corn. Now, I know why it is not safe to be in or play in any grain wagon, grain bin or a pile of grain. Dad, if someone sinks under corn or grain, they will not be able to breathe." My friend Sadie raised her hand and said, "You can suffocate under the corn because the corn fills in around your chest." Paul added, "That is right and that is why I don't want you to go into a grain wagon or in a grain bin."

Abner who was in the 4th grade said, "I liked the big farm hazard board with all the horse drawn farm equipment and small tractors. The farm hazard board had a lot of unsafe things happening. My friends and I tried to count all the hazards; we got up to 25. Some of the miniature figures were: climbing into the grain wagon, climbing on ladders, or sitting in the bucket of the tractor loader. Oh! Yes, one was standing on the hitch of the tractor. There even was a person hoeing too close to someone spraying pesticides in the field."

Paul asked 8-year-old Sarah what she liked best. Sarah said, "I liked the puppet shows and especially the scarecrow puppet. His name was Mr. Watch-It. He would say **'Watch It'** when he saw someone not being safe. Dad, it was so funny when some of the puppets' straw hats fell off."

Mr. "Watch-It" and Pat the Environmental Rat

Susan said, "I liked the Rat puppet. He was called **Pat the Environmental Rat** and he wore a funny straw hat. Mr. 'Watch-It' told the Rat puppet he should stop and not go into a building that has a "Danger Pesticide Storage" sign on the door or building; pesticides can make you feel sick. Dad, the educator gave us this **'Danger! Never play here'** decal. Where should we put it?"

Danger decal.

"I was thinking maybe it could be put near where Mom stores her garden chemicals to help remind the young children not to play there. What do you think?" Paul said, "Mary, I think that would be a good idea. We can do that later tonight."

Henry added, "I did not know that antifreeze tastes sweet and that dogs and cats like to drink it." Kay told us, "It does not take much antifreeze to hurt a cat, a dog or a person and it is very important not to spill any chemical on the ground because we do not want to contaminate our well water."

Mary said, "We all had fun today; I hope she comes back next year; it was way better than lessons and we all got to pick out a new pencil, eraser, ruler, and she gave us safety activity books, but I really like my safety vest the best."

Antifreeze tastes sweet.

Paul reminded them it was time to start their chores and told them he wanted to hear more about the program during supper. Jake and Paul worked for another hour, and then it was time for Jake to start home. Supper would be waiting. Besides he was worn out and bedtime would not come too soon. Jake waved good-by as he slowly drove out the lane towards home.

Mark Your Answer on Your Answer Sheet

15. T. or F. Some poisonous chemicals are sweet tasting and attract animals and children.

16. T. or F. Flush away antifreeze with water if a little is spilled on the ground or driveway.

17. T. or F. Children or adults may ride along on a tractor, lift truck or skid loader as passengers.

18. T. or F. Grain wagons are a fun place to play because the sides slope inward and playing in shelled corn or grain is like playing in a sand box.

Paul Attends a Pesticide Safety Meeting

Later that week, Paul attended a pesticide certification meeting held at the chemical dealer down the road. He needed two more core credits and two more category credits to up-date his private applicator's license. The safety topics for the meeting included information on cleaning up a chemical spill and pesticide residue.

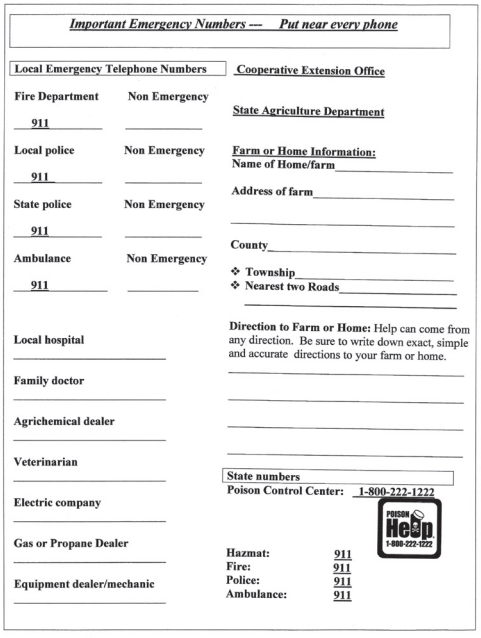
The educator named Tom introduced himself and then started the program by saying, "Does anyone have a chemical spill kit at home?" Only a few hands went up. Then Tom commented, "Everyone likely does have the needed supplies at home or in their work shop. You can also purchase a commercially made spill kit from a supply store."

You can buy a commercially made spill kit.

Tom continued, "You can also use an empty 5 gallon laundry soap bucket or you can purchase a large plastic bucket at your local store. In your spill kit, you should put a broom (it could be a child's worn-out broom), soap and cleaners, heavy-duty trash bags, a small dust broom and brush, a bag of pet litter, and an old shovel. Label the container 'Chemical Spill Kit' and tell everyone that this kit is to be used only for a chemical spill. Put your PPE on top of the container so it is available to immediately protect yourself. Having a spill kit ready to grab is a time saver and could be a life saver."

Tom stressed, "It is important to put a list of emergency contacts and phone numbers near your phone. It makes calling for help during an emergency much easier. Some of the important numbers you may want to have handy near the phone are: the poison center, your agriculture dealer, the Department of Agriculture, and your local county extension office." I brought along some copies of what I call 'Emergency Phone Sheet' and you can pick one up at the end of the program. Add any additional phone or emergency information you wish.

Put an "Emergency Phone Sheet" near the phone.



Important Emergency Numbers --- Put near every phone

Local Emergency Telephone Numbers

Fire Department	Non Emergency
911	
Local police	Non Emergency
911	
State police	Non Emergency
911	
Ambulance	Non Emergency
911	

Local hospital

Family doctor

Agrichemical dealer

Veterinarian

Electric company

Gas or Propane Dealer

Equipment dealer/mechanic

Cooperative Extension Office

State Agriculture Department

Farm or Home Information:

Name of Home/farm

Address of farm

County

- Township
- Nearest two Roads

Direction to Farm or Home: Help can come from any direction. Be sure to write down exact, simple and accurate directions to your farm or home.

State numbers

Poison Control Center: 1-800-222-1222

POISON Help 1-800-222-1222

Hazmat:	911
Fire:	911
Police:	911
Ambulance:	911

Control, Contain and Clean-Up a Pesticide Spill

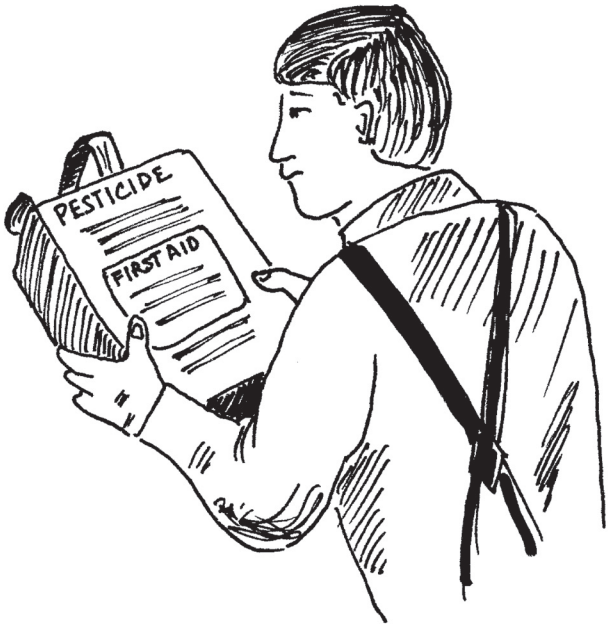
Tom said, "A chemical spill can be a minor problem (like a bottle leaking) or it could be a much larger spill (like a sprayer tank that overturns). There are three words that you can use to help remember how to clean up a chemical spill. Those words are called the Three C's: **Control, Contain and Clean-up**."

Your immediate job is to Control the spill, whether it is a spill at the mix and load site or a leaking plastic bottle on the storage shelf.

Your first step is to protect yourself from exposure to the chemical by using the proper Personal Protective Equipment (PPE). Don't just charge into any chemically contaminated area where you are not protected with personal protection equipment; *your safety is important*.

It is essential for your safety to first read the pesticide label. The 'precautionary statements' section will provide you with specific information as to what PPE is needed when using the product.

The "Precautionary Statement" on the label will tell you what PPE to wear when using a pesticide.



PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber ≥ 14 mils or nitrile rubber ≥ 14 mils or viton ≥ 14 mils.
- Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.
- Chemical-resistant apron when cleaning equipment, mixing, or loadin
- A respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE.

If it is a major spill, the 9-1-1 responders (Emergency Management Team) will respond and call the county Hazmat team if they are needed. If the spill is on a public highway, the regional office of the Department of Agriculture should be called in Pennsylvania, but some states may want the Department of Environmental Conservation to be notified (check with your Agricultural Department). Finally, remember to rope off the area where chemicals are spilled to keep children, adults, and animals far enough away to be safe.

The second step is to Contain the spill. Containing the spill, means to prevent the chemical from spreading and contaminating soil or a body of water like a stream or pond. Liquid spills can be contained by using absorbent materials like fine sand, vermiculite, clay, or pet litter to create a dike of material around the spill. You can also purchase absorbents packed in porous fabric (pillows or tubes) to create a dike around the chemical spill.

Absorbent pet litter.

Absorbent pillows and tubes.

Absorbent litter and a tube.

If you find a small leaking container, use gloves to put the leaking container into a plastic bin, tray, metal container, plastic bag or a bucket to contain the spill.

Use gloves to put a leaking container into a bin, tray, bag, or bucket.

The final step is to Clean-up the spill. Be sure to use enough of the absorbent material so that the liquid is soaked up. Then sweep up the chemical and absorbent material into a pile and put it into a container that is lined with a trash bag.

Put absorbent material down to soak up the spill. Sweep into a pile and put into a trash bag lined container.

If it is a **small amount** of chemical and absorbent material, you can use the chemical (according to the label's directions) on the appropriate crops.

If it is a **large amount** of chemical and absorbent material, put it into a steel or metal drum lined with a heavy-duty trash bag and dispose of it with the CHEMSWEEP program.

Finally, be sure to wash the area with soap or a cleaner like household bleach. Look on the pesticide label to know what cleaning detergent can be used with that pesticide.

Wash the area with soap or a cleaner to neutralize the area (check the label).

Washing the area with a detergent will neutralize the site. **Never combine bleach (the chemical element, chlorine) with ammonia (the chemical elements nitrogen and hydrogen) because you will create a toxic vapor called chloramine gas that can damage your lungs.**

If the pesticide leaked into the soil, the only way to decontaminate the site is to remove the top 3 inches of soil contaminated by the pesticide. If it is a **small amount** of contaminated soil, you can put the soil on appropriate crop area, according to the pesticide label.

If a chemical leaks into soil, remove the top 3 inches of contaminated soil.

If you have a **large amount** of contaminated soil, put a trash bag into a metal drum or barrel and shovel the contaminated soil into the container and then take it to a disposal site.

Paul Makes a Spill Kit

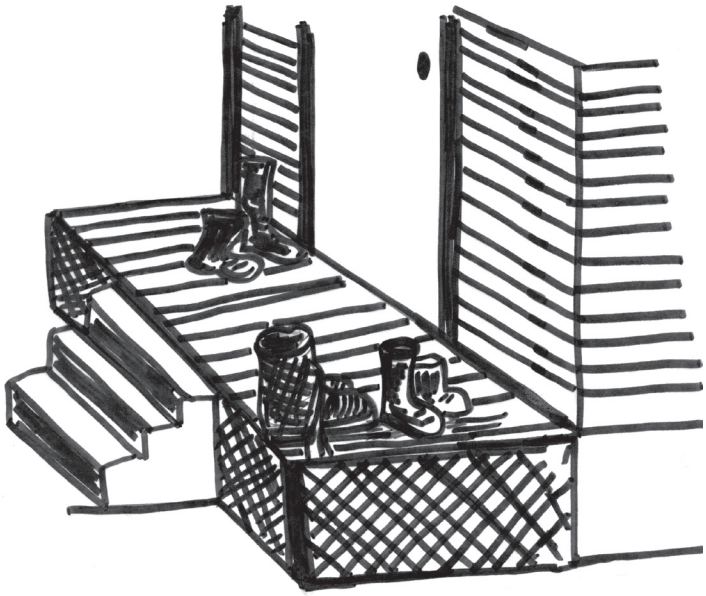
A few days after the meeting, Paul asked his wife for one of her empty laundry buckets. He gathered all the materials and put his PPE equipment on the top of the bucket. He took a marker and wrote "Chemical Spill Kit" on the outside of the bucket. He showed Lois and the children where the new spill kit would be stored. Paul told them, "**Don't** take any of these supplies unless they are needed for a chemical spill."

Paul's Chemical Spill Kit.

Pesticide Residue

The second speaker (Jeff) got up to talk about **"Pesticide Residue"**. Jeff said, "Did you know that small amounts of pesticides (called pesticide residue) can be left on shoes and work clothes after you apply pesticides?" Jeff continued, "How many of you take your shoes off at the doorway or in the laundry room before going into the kitchen?" Almost all the hands went up.

Jeff commented, **"<u>Well, taking your shoes off before going into the house is an important thing to do.</u>** The pesticide residue that is left on your shoes can easily be taken or transferred ont your kitchen floor exposing your children who play or crawl on the floor. Children are still growing and are more easily harmed by small amounts of pesticide residue than adults; their smaller bodies metabolize, detoxify, and eliminate substances from their bodies differently than adults."



Taking your shoes and boots off at the doorway is important

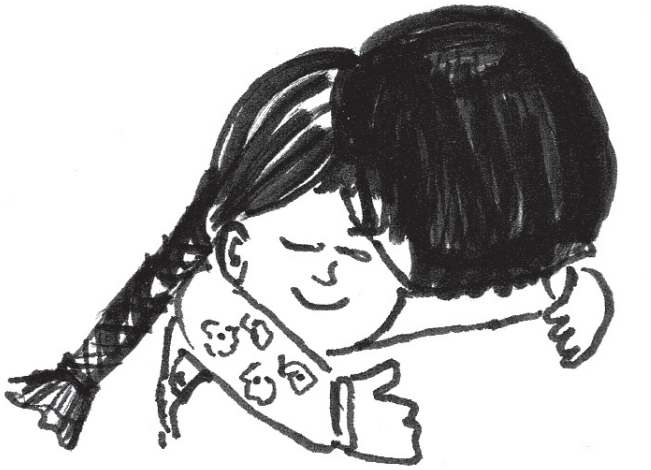
The educator continued, "Another way to reduce pesticide residue from being tracked into the house is to **wear rubber boots when applying pesticides**. Before you enter the house, take time to clean your boots with soap and water, and then take them off. Rubber boots will keep your work shoes free of pesticide residue."

Wash off your boots before taking them off.

Jeff added, "Don't wear leather when applying pesticides (shoes and belts) because leather quickly **absorbs pesticides**. Remember: **Leather cannot be decontaminated**."

He continued, "I want to share with you an interesting research study conducted in North Carolina and Virginia in 2004. This study, **"<u>Agricultural and Residential Pesticides in Wipe Samples from Farm Worker Family Residences</u>"** was conducted to find out if any of the farm workers transferred pesticide residue via shoes and clothing home to their residence and families. The researchers used a special small piece of cloth called a wipe. The researcher wiped over floors, toys, and children's hands with the special wipes. The wipes were then labeled and sent to a laboratory for study. The results showed pesticide residue was present in 39 out of the 41 samples they sent to the laboratory."

Pesticide Contaminated Work Clothes



The educator added, “Pesticide residue can drift or blow onto work shirts, hats, pants and shoes while applying pesticides. If your work clothes have pesticide residue on them and you sit in a chair, sofa or hold a child, some of the residue can be transferred from your shoes and clothes to the floor, sofa, chairs, and a child’s hands or their clothing.”

Work clothes can transfer pesticide residue to children’s hands/clothing.

The educator continued, “Some farmers ask me what else they can do to help lessen the transfer and exposure of pesticide residue to their family. I tell them one option is to **wear chemical resistant coveralls when applying pesticides**.

After you have completed spraying, simply remove your coverall and hang it up. Remember never keep PPE equipment with your stored pesticides. You should store your PPE in a separate area to decrease pesticide contamination. Then wash your hands, face and arms with soap and water. Using the coverall will protect your work clothes from pesticide residue contamination that can be transferred to a child’s hands, clothing or your favorite chair. Remember, it is allowable to wear more PPE including chemical resistant coveralls than required by the pesticide label.”

The second option is **to shower and change into clean clothes** as soon as you go into the house (before holding a child or relaxing in a favorite chair) to prevent transferring pesticide residue to your family.

The educator stressed, “Do not put pesticide contaminated work clothes in the same laundry basket with your children’s or wife’s clothing. If you put contaminated clothing in the family laundry basket, pesticide residue can be transferred from your work clothing to your familyís laundry and to whoever touches the laundry. It is best to keep contaminated clothing separate from other family laundry by putting them in a separate laundry use a big plastic trash bag.”

Never put contaminated work clothes in with family laundry. Use another container or trash bag

“Remember,” Jeff added, “always tell the person doing the laundry that the clothes you are handing them are contaminated with pesticides. Remind them to use chemical-resistant gloves when they touch or pick up your contaminated clothes. They could also wear a chemical-resistant apron to prevent pesticide residue transferring to their clothing.”

Remind the person doing the laundry to wear PPE when touching your pesticide contaminated clothing.

"Wash contaminated clothing (last load with hot water and soap) and hang them on the wash line so the sun can break down any remaining chemical residue. Finally, rinse the washer with two cycles of rinse water. Some families, who have a lot of pesticide contaminated work clothing, use an old washer to wash only pesticide contaminated clothing. Remember clothing that is saturated with a chemical should not be washed. It is best to just dispose of the clothing."

This information made sense to Paul; he now realized that his shoes and contaminated work clothes could expose his children and wife to pesticide residue. He thought about the two options the speaker talked about. He decided that it would be easier for him to use chemical resistant coveralls since it provided him more protection and it would be easy to take the coveralls off rather than showering and changing clothes in the middle of the day. Besides the educator did say, "It is allowable to wear more PPE than the pesticide label requires." Paul decided to order some chemical resistant coveralls from the farm supply catalog the next time he had to order supplies.

Mark Your Answer on Your Answer Sheet

19. T. or F. A chemical spill kit should be immediately available to an applicator.

20. T. or F. PPE supplies should be stored in the bottom of your chemical spill kit to keep them clean.

21. T. or F. When there is a chemical spill, the first thing to do is to put on personal protective clothing (PPE).

22. T. or F. Three words to remember when there is a chemical spill are: Control, Contain, and Clean-up.

23. T. or F. Chemical spills on the ground are just as easy to clean-up as a chemical spill on concrete.

24. T. or F. Call 9-1-1 for a chemical spill that could contaminate a body of water like a stream or well.

25. T. or F. Harmful amounts of pesticide residue can be transferred from contaminated work clothes or shoes to floors, furniture and children's clothes and hands.

26. T. or F. It is permissible to wear more PPE than the pesticide label requires.

27. T. or F. Wear chemical resistant coveralls or shower and change into clean clothes before holding children to prevent exposing children to pesticide residue.

28. T. or F. As long as it is the same type of clothing, you can mix clothing worn when applying pesticides with other family laundry.

Storage Shed Found Open

The past few weeks had been extra busy for Paul and Lois. It was early Saturday morning and after a quick breakfast, Paul walked out to his new pesticide storage shed to mix and load the sprayer for several corn fields. As he got near the shed, he saw that the door was open.

He quickly checked his supplies and realized that nothing was disturbed. To be extra safe, Paul checked with his children and wife to make sure that they had not been in the storage area. Paul was glad to find that the older children were busy doing their chores and the rest of the little children were safely playing in the house. How glad he was that none of the children were exposed since he must have left the door unlocked. He made a mental note to **double check** that the door was always locked.

Recording Pesticide Use In A Record Keeping Book

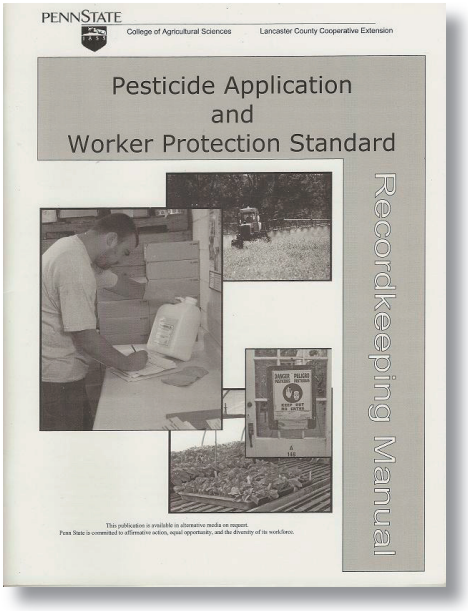
Paul quickly went back to his sprayer; he wanted to get out in the fields before the wind picked up. He was in such a hurry that he thought about not taking the time to record what he was mixing in the sprayer; it was tempting not to take time to record this application in his record keeping log book. Then he remembered what happened to his brother (Melvin) who moved to Ohio last year.

Melvin's wife (Sara) found him unconscious near the sprayer one morning. She called 9-1-1 and when the emergency responders came, they asked her what chemical or chemicals were in the sprayer. Sara knew to look in her husband's log book and she was able to give the 9-1-1 responders the labels and the EPA registration numbers of both chemicals that Melvin had used. The doctors told her that because they knew what chemicals her husband was exposed to, they could provide appropriate medical care.

Paul also remembered the educator saying at the last pesticide training, "One of the newest changes in Pennsylvania's law is that a grower must log in or record their pesticide use within 24 hours of the application.

It is important to keep records of what pesticides you apply for your safety.

Paul realized that if he had workers that were covered under the Worker Protection Standard (WPS), he would be required to record the application as soon as it was completed, since the WPS required a grower to post (at the Central Location) all pesticides applied in the past 30 days."



Besides, he thought, "it will not take that long to record this application; I might as well get started since I have to stay here by the sprayer anyway." Paul found that he easily completed his log book before the sprayer was completely filled and soon he was driving out to the corn fields. Paul realized that it was a very beautiful calm day. How glad he was that he could be out in the fields. This was the best part of farming. As he was driving along the back lane to his corn field, he planned his day. After spraying he would cut some hay. He had a lot of raking to get done so that he could start baling hay tomorrow.

Mark Your Answer on Your Answer Sheet

29. T. or F. For his personal safety, Paul should record the pesticide he is loading, while filling the sprayer and not wait till later that week.

30. T. or F. In Pennsylvania it doesn't matter how long a grower waits to record the use of pesticides as long as he eventually logs and records what pesticide he applied.

31. T. or F. If a grower has workers that fall under the WPS, he must log his pesticide application as soon as it is completed.

The New Raft

It was after five o'clock when Paul finished raking hay. He was very hungry and he was wondering what they were having for supper. He walked slowly towards the house and as he got closer to the back door of the kitchen, he heard the children laughing. He realized the laughter was coming from the pond, so he walked towards the pond to see what they were doing.

Paul thought, "Raft! What Raft? Where did that come from?"

Holding up the wood raft were old pesticide bottles.

As he got closer, Paul could see his two oldest children floating on wooden boards. He thought, "At least they have their life jackets on. Then he realized that the wooden boards were held up by four or more of his big empty pesticide containers." He thought that the children must have put the raft together using what they found handy (boards and empty chemical containers).

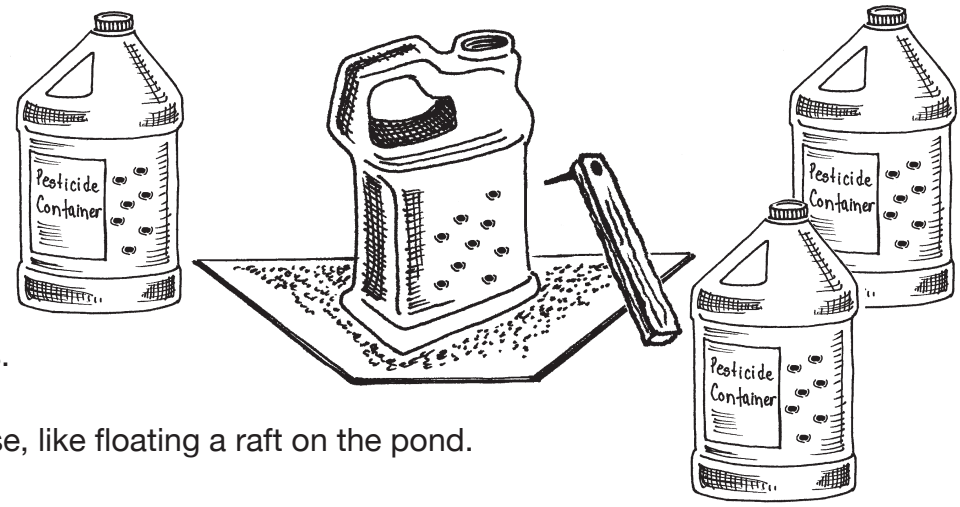
Paul knew that using pesticide contaminated jugs was not a safe thing to do; pesticide residue could be left on the outside and on the inside of the containers. His dad had always taught them to never use pesticide containers for any other use or to bring a pesticide container into the house.

When he got to the pond, he told the children as calmly as he could, "It is time to go in for supper." He helped them pull the raft onto the bank of the pond, and he instructed them to be sure to wash up well with soap and water as soon as they got into the house and to put on clean clothes. Then he carried the raft towards his storage shed; he would take care of the chemical bottles later after supper while the children helped wash up the dishes and finished their chores.

Paul realized that the pesticide containers could have exposed the children to pesticide residue, by getting the chemical on their clothes, skin or by putting their hands into their mouth. The containers may have contaminated the pond.

After supper, he planned to get the biggest nail he could find and hammer it into the end of a 2 X 2 piece of wood (like described on the pesticide fact sheet) and then punch holes into the pesticide containers.

Paul punched holes into all the pesticide containers.



In the future, he planned to punch holes immediately into all empty triple-rinsed containers. Then pesticide containers could not be used for any other purpose, like floating a raft on the pond.

Suppertime Safety Discussion

During supper, Paul told his children he was glad to see they were wearing their life jackets but he explained, "**It is not safe to use old pesticide containers for any purpose**. Small amounts of pesticides could have been on and in the containers which can contaminate your hands, clothing, and/or the pond water. Pesticide exposure is serious because pesticides can be absorbed into your body through your skin and eyes, or by breathing the chemical into your lungs, or by swallowing the chemical." He made them promise to never again re-use pesticide or chemical containers for any reason.

Paul added, “After supper, when the dishes are all washed and put away, you can come out to the workshop and together we will make a raft that you can safely float on the pond.” He asked, “Can anyone tell me one of our water safety rules?” It did not take the children long to recite all four rules:

1. Tell mom where we are going
2. Never swim or be at the pond alone
3. Always wear a life jacket
4. Keep the gate closed so that the smaller children cannot get near the pond

Building a New Raft Together

After the children were done with all their chores, they quickly went to the workshop to help build their special raft. Paul said as they worked, “I am glad you children remembered all of our pond safety rules. Living and working on a farm is fun, but there can be a lot of safety concerns.” He added, “It takes everyone to watch out for safety. If you see something that is not safe, please let mom or me know so we can correct the hazard and prevent an injury. I am glad that you older children help keep an eye on your younger brothers and sisters. It is difficult for one person to keep an eye on them; it takes all of us. Your younger brothers and sisters are too young to understand about safety; that is why we have a small fenced-in area where they can safely play. The fence helps to prevent them from drowning in the pond and being hurt by the animals or by farm machinery, but you still need to keep your eyes on your brothers and sisters.”

Their Family Farm Safety Rules

When Paul and the children were almost finished building the raft, Paul said, “You did a great job naming all the water safety rules. Now who knows some ‘Family Farm Rules’?”

The children quickly named their farm safety rules:

1. One seat, One Rider—No extra riders on any equipment
2. Never go near a spinning PTO or Auger
3. Never ride on the hitch of the tractor
4. Never ride on the bucket loader or on the skid loader bucket
5. Always ask, “May I have this” before eating or drinking something

Paul said, “Good job, now let’s add one more important chemical safety rule; **Never use any pesticide containers for any other use.** Remember using pesticide containers for other uses could expose you, another family member, and/or the environment to a poisonous chemical. Safety on our farm is important. Chemical and farm safety is everyone’s responsibility. It is important for everyone to **Stop, Think Twice, and Think Safety**.”

Mark Your Answer on Your Answer Sheet

32. T. or F. It is permissible to use pesticide containers for other uses such as carrying water, making a raft, or cutting them into objects like feed scoops?

Floating Their New Raft

It wasn't long before the new raft was finished. Paul asked one of the children to let their mom know, and they all helped carry the raft to the pond. They had a lot of fun taking turns that night on the raft. Soon the children were getting sleepy and it was time for hot chocolate and cookies. Then the children brushed their teeth and got ready for bed. They said their prayers, and Paul and Lois tucked them in and wished them a good night. One of the children said, "Thanks, dad, for helping us build a safe raft. Now I understand that it is not safe to re-use pesticide containers."

Paul and Lois were very thankful their children were safe and happy; each day spent with their children was special. Paul told Lois, "We as parents have a big responsibility to keep our children safe from being injured. Safety must come first, so we need to be observant and watch for any hazards or situations that might cause someone to be hurt, injured or exposed to a chemical. Then we need to make changes to prevent an injury or fatality."

Lois added, "You are right. It is important for us to be good role models because what our children see us do, they will do. We need to stress safety and help them understand that safety must always come first. Our children are very important to us, and we should do everything we can to help them grow up safe and happy."

Lois continued, "It was fun watching the children float on their new raft tonight. I hope we have many more family fun times with our children." Paul added, "Yes, I had fun as well, and I hope we can spend a lot of time swimming, fishing, rafting, and ice skating. But for now we better get to sleep. There is a lot of work waiting to be done tomorrow."

Questions and Answers for Beef and Crop Chemical Simulation Stories

1. T. or F. The fence around the pond will help prevent a child or visitor from drowning but is not a guarantee.

True—In general, it is recommended that all ponds and lagoons be fenced and a "No Trespassing" sign be posted. Children under the age of 4 make up the largest group of victims in farm pond drownings. Lack of close supervision, misunderstanding the curiosity of children, and adults who overestimate their child's sense of judgment, contribute to young children drowning in ponds. Remember a pond that is within eyesight of busy areas of the home (kitchen) or barnyard provides for the best view of pond activities compared to a pond that is out of sight. Children also drown in bathtubs, horse troughs, gold fish ponds or a bucket of water.

Teach youth to use the:
• Don't Go
• Reach and Throw rescue technique

It is safer to reach out or throw something to the person drowning, rather than going into the water to rescue the person, because the person in trouble may panic and pull you UNDER the water. Make a heaving jug by using an empty plastic gallon jug. Fill it with 1 to 2 cups of sand or gravel and then attach a rope to the gallon jug. Hang your heaving jug near the pond, stream, and/or manure pit. The heaving jug can be used to help save someone who is drowning by throwing the heaving jug to them and then pulling them to safety.

2. T. or F. A family member of ten uses 600 gallons of water a day.

True—Each family member uses about 60 gallons of water each day in washing clothes and dishes, brushing teeth, taking baths, and drinking. If you take 60 gallons X 10 family members you will get 600 gallons of water per day. Horses use 8-10 gallons and cows will use 30-50 gallons of water per day.

3. T. or F. Hand dug wells are more prone to contamination and going dry than drilled wells.

True—Hand dug wells are more prone to contamination because they are only dug slightly below the water table and can be contaminated by surface runoff. Drilled wells may be as deep as 1,000 feet and are less likely to be contaminated by surface runoff or from high ground-water levels.

4. T. or F. It doesn't matter where the pesticide storage shed is located as long as you have a concrete mixing and loading pad.

False—Pesticide storage should be located down slope (a minimum of 200 feet) away from wells or streams.

5. T. or F. Hay holes in the barn do not need to be covered as long as you show children the location.

False—Falling off equipment, falling down hay holes, and being struck by big animals continue to be the biggest causes of injuries on farms that send children to emergency rooms. A child who falls down a hay hole falls 10-20 feet. If the child is on top of stacks of hay bales and falls through the hay hole, that may mean they fall 30-40 feet, which increases the seriousness of the injury or even death through head trauma.

6. T. or F. It is dangerous to create sparks, light a match, or burn trash close to where pesticides are stored since pesticides may be flammable.

True—Many pesticides are made from petroleum and therefore are flammable. When pesticides are burning, toxic chemicals and toxic smoke are produced. Toxic smoke is dangerous for the health of humans and animals.

7. T. or F. It is recommended to store granular or dry chemicals on the bottom shelf with liquid pesticides on the top shelves.

False—It is recommended to put liquid pesticides on the bottom of a storage cabinet and granular or dry chemicals on the top shelves. If dry pesticides are stored on the bottom with liquid pesticides on the top shelves and there is a leak the liquids can contaminate and destroy the dry or granular pesticides, causing economic loss and it makes clean-up more difficult.

8. T. or F. Storing liquid pesticides inside a plastic bin makes cleaning up a chemical leak easier.

True—Putting liquid pesticides inside a plastic bin or container can contain any leaks and make clean-up easier.

9. T. or F. More pesticide spills occur while spraying the chemical on crops than when mixing or loading a sprayer.

False—More spills occur at the mixing and loading site, not while spraying in the field.

10. T. or F. Well water can be contaminated by spilling small amounts of pesticides repeatedly on the ground.

True—Well water and ground water can be contaminated with pesticides if the chemical is repeatedly spilled over and over again even in small amounts.

11. T. or F. There are no regulations requiring a lock or a “Danger Stored Chemical” sign on the door of pesticide storage areas.

True—There are no regulations that require a pesticide storage area to be locked or a have a “Danger Stored Chemical” sign on the door. However, to prevent chemical exposure to children and pets it is important to lock the storage area and put a sign on the door, to remind children not to enter. A sign will help firemen who are responding to a fire to know where pesticides are stored when none of the family is home.

12. T. or F. You can take empty pesticide containers to a pesticide container recycling center after shaking and rinsing them out two times.

False—A recycling center will not accept pesticide containers unless they are triple-rinsed or pressure-rinsed. Remember to take off the caps and book labels. A special puncture device attached to the rinse hose will guarantee that the container cannot be used for any other purpose. A farmer can put a large nail into a piece of wood and puncture holes into a container to prevent any other use of the container.

13. T. or F. Citizens of Pennsylvania can use a program (CHEMSWEEP) to legally dispose of unwanted pesticides with little or no cost or questions.

True—Any citizen of PA can call CHEMSWEEP to dispose of cancelled, suspended or unwanted pesticide products legally and generally at no or low cost, depending on the amount needed to be disposed. A citizen of PA can call PDA regional office. (see at CHEMSWEEP list in story). Each year different counties are selected to be part of the CHEMSWEEP program.

14. T. or F. Only pesticides that can be identified as a specific product can be disposed of in the CHEMSWEEP program.

False—Even if you don’t know what is in the bottle but are pretty sure it is a pesticide, PDA (CHEMSWEEP) will test and dispose of the chemical.

15. T. or F. Some poisonous chemicals are sweet tasting and attract animals and children.

True—Some chemicals are sweet tasting as is antifreeze. Some chemicals smell good and some look like drinks that children previously enjoyed. Keeping all farm and household chemicals out of reach is an important life saving safety rule. Never put a chemical into an empty soda or empty drink bottle; a child may recognize the container and think it is ok to drink from it.

16. T. or F. Flush away antifreeze with water if a little is spilled on the ground or driveway.

False—Never wash down a chemical and think "Out of Sight, Out of Mind". Any chemical we pour on the ground is going into someone's well water; likely yours. So never flush antifreeze down the driveway with water. Use an absorbent material or pet litter to soak up the spill and put the absorbent material into a trash bag and dispose of it in the trash.

17. T. or F. Children or adults may ride along on a tractor, lift truck or skid loader as passengers.

False—It is never safe for children or adults to be an extra rider on a tractor, equipment or machinery. Even when riding in a tractor with a cab, children have fallen out the tractor door and died because they were run over by the equipment. Make the "One Seat, One Rider Rule" one of your family farm safety rules.

18. T. or F. Grain wagons are a fun place to play because the sides slope inward and playing in shelled corn or grain is like playing in a sand box.

False—Grain wagons and other farm machinery are not toys and can be dangerous to play near or play on, even if the equipment is not running. It only takes a few seconds for flowing grain (grain wagon or grain bin) to pull a child or person under the grain causing suffocation. A child can sink into a pile of grain. A wagon that is spreading fertilizer is much like grain and will also pull a person under the fertilizer causing suffocation.

19. T. or F. A chemical spill kit should be immediately available to an applicator.

True—You want a chemical spill kit to be in arms reach when there is a spill. During an emergency spill there is no time to gather the materials needed to contain, control or clean-up the spill. If it is a large spill that may contaminate water, you will want to have materials at hand to immediately contain the spill.

20. T. or F. PPE supplies should be stored in the bottom of your chemical spill kit to keep them clean.

False—Always keep your PPE supplies on top of the spill kit. It will take too much time to unload the kit to find the needed PPE. You should put all the PPE equipment in a small plastic bag on top of your spill kit, ready to use.

21. T. or F. When there is a chemical spill, the first thing to do is to put on personal protective clothing (PPE).

True—The first thing to do is to protect yourself from exposure (Your safety is most important). If the chemical pesticide that requires the use of a respirator to protect your lungs, having your PPE equipment on top of the spill kit speeds up your reaction time. Remember 97% of exposure to pesticides is through your skin so having gloves to put on and a chemical coverall is important as well.

22. T. or F. Three words to remember when there is a chemical spill are: Control, Contain, and Clean-up.

True—The three C words are: Control, Contain, and Clean-up.

- ***Control****—control the flow and do everything possible to stop the leak or spill at once.*
- ***Contain****—the chemical to prevent spilling into a body of water by using sand, vermiculite, absorbent materials.*
- ***Clean-Up****—after the absorbent material soaked up the chemical, sweep together and put into a trash bag/metal container. Then use the recommended detergent found on the label to neutralize the site.*

23. T. or F. Chemical spills on the ground are just as easy to cleanup as a chemical spill on concrete.

False—It is much easier to clean-up a spill on cement rather than ground. A spill on the ground will require you to take 2-3 inches of soil that is wet with the chemical and dispose of the soil when it is dry (could clog the sprayer) with your 3-pt hitch spin spreader or fertilizer spreader, or call CHEMSWEEP if large amounts of contaminated soil must be disposed.

24. T. or F. Call 9-1-1 for a chemical spill that could contaminate a body of water like a (stream or well).

True—Call 9-1-1 if you have a large spill or have a concern about the spill contaminating a body of water. 9-1-1 will call Hazmat if needed. If the spill is on a highway, remember to notify the Department of Agriculture.

25. T. or F. Harmful amounts of pesticide residue can be transferred from contaminated work clothes or shoes to floors, furniture and children's clothes and hands.

True—Pesticide residue (small amounts of pesticides) on contaminated work clothes can transfer from shoes to floors, to furniture and children. Children can contaminate their hands and clothing someone hugs them while wearing pesticide contaminated clothing.

26. T. or F. It is permissible to wear more PPE than the pesticide label requires.

True—The pesticide label is law and a grower must use the recommended PPE on the label when using that product, but a grower can use additional PPE like chemical resistant coveralls.

27. T. or F. Wear chemical resistant coveralls or shower and change into clean clothes before holding children to prevent exposing children to pesticide residue.

True—To prevent exposing children to pesticide residue, a grower can 1. Take off a chemical resistant coverall and wash his hands and face with soap and water or 2. Shower and put on clean work clothes before holding the children or sitting down to eat lunch or supper.

28. T. or F. As long as it is the same type of clothing, you can mix clothing worn when applying pesticides with other family laundry.

False—Work clothes contaminated with pesticides should be put into a separate basket or trash bag (not with any of the family laundry) to prevent the transfer of pesticide residue. Be sure to remind the person who is doing the laundry to wear gloves when putting the clothes into the washer and wash them as the last load. It is important to hang the clothes on the wash line so the sun can help breakdown any pesticide residue. The washer should be run through 2 rinse cycles to help remove any leftover residue.

29. T. or F. For his personal safety, Paul should record the pesticide he is loading while filling the sprayer and not wait until later that week.

True—A grower should record what he is putting into the sprayer while the sprayer is filling. If someone found him unconscious at the sprayer, a family member could tell the medical responders what chemical the person was exposed to. The log book will have the EPA registration number and the active ingredient of the chemical or chemicals that the grower was exposed to.

30. T. or F. In Pennsylvania it doesn't matter how long a grower waits to record the use of pesticides as long as he eventually logs and records what pesticide he applied.

False—A new change in PA pesticide regulations is that a grower must log or record what pesticide he sprayed within 24 hours of the application.

31. T. or F. If a grower has workers that fall under the WPS, he must log his pesticide application as soon as it is completed.

True—A grower who is complying with the WPS regulations must immediately post what pesticides were sprayed since he must keep a list of all pesticides used in the last 30 days at the Central Location.

32. T. or F. It is permissible to use pesticide containers for other uses such as carrying water, making a raft, or cutting them into objects like feed scoops?

False—Once the pesticide has been used, triple-rinse or pressure-rinse the containers, puncture the container to prevent further use, and recycle the container through a recycling program.

POISON Help®

1-800-222-1222

Call the Poison Control Center when you think someone was exposed to a chemical or pesticide.

1-800-222-1222

- Take the label or medication bottle to the phone
- Spell the name of the chemical
- If it is a pesticide, they will want to know the EPA number
- Be ready to tell them the age and weight of the person
- Answer all their questions
- Follow the directions they provide you

Call 9-1-1

When you have an Emergency or someone is not responding

Tell the Operator:

My name is: _____

My phone number is: _____

My Address I am calling from is: _____

_____

The Township/Borough I am calling from is:

_____

The two closest roads to me are: _____

and _____

- Send someone to the edge of the road or end of your lane
- Tell them to flag or wave when they see the medical responders
- If you think the person is not responding because they were exposed to a chemical or pesticide—Give them the label of chemical or pesticide
- At night use a flashlight or turn your porch light off and on to alert the responders where you are located

9-1-1

POLICE • FIRE • MEDICAL

EMERGENCY

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