Lesson # 13

*Title: Pesticide Handling Decisions – A Safety Checklist*

**Purposes / Objectives:**
- To teach or reinforce proper pesticide handling practices.
- To show what you must do before, during, and after applying a pesticide.
- To use a pesticide product label and follow its instructions.

**Overview:**

Farmers are asked to list five important things they must do in order to handle pesticides correctly. This list is used to make a pre-spray application checklist…

**Introduction / Discussion:**

First work on a list in groups …then put in order….then produce a final checklist everyone agrees on.

There are various reasons for conducting this activity.
- Even very careful farmers may become complacent in their work. This may result in problems; for example, forgetting to use safety equipment or “cutting corners” because they are in a hurry to finish a job. By doing this exercise, people may identify things they have forgotten about or stopped doing, and can adjust their work habits accordingly.
- It is a good way to review the sections of a pesticide product label.
- It is a good exercise for new / in-training applicators.

**Materials:**

- paper and pencils
- chalk board or classroom-size noteboard
- product label(s): use pattern of the course participants
Advance Planning:

It is helpful to have a few clean pesticide containers with product labels on hand for this exercise. If possible, choose products the farmers often use. You can refer to the label regarding specific safety practices, and show farmers where to find and how to use pictograms. The farmers, when working in groups, may also wish to refer to a label.

Instruction Outline / Methods:

1. Introduction - Introduce yourself. Identify the learning objectives for the session. Ask participants if they have ever been in the process of handling a pesticide and realized that they had forgotten some important item or step. If so, ask if they will describe their experience.

2. Activity - Ask the participants to work in groups of 3-5. Ask them to work on a checklist for planning and preparing for an application. (They may also want to think about things they do at the start of the application season.) The list may be based on a product label, if one is used. You may ask each group to work on a complete list, OR ask each group to work specific recommendations and on a different area (ex. personal safety vs. application equipment vs. environmental safety vs. pesticide selection.)

3. Discussion and Problem-Solving - Ask course participants to share their lists. As planning steps are suggested, work with the group to place them in logical sequence or group them. Write each on the blackboard or poster board.

4. Wrap-Up and Conclusion - Review “master” list. Suggest additions if/as you see fit. Ask course participants to copy and use list for their future reference. A sample checklist may be found at the end of this lesson.

Notes:
Checklist … Preparing to Apply a Pesticide

☐ Study the product label. Use it as a guide before, during, and after handling a pesticide! (Never use pesticides that are not in their original, properly-labeled container!)

Pesticide:
☐ What pesticide product(s) will you be applying?
☐ Is it the right time / right crop / right pest?
☐ Do you know the proper mixing ratio/dose/rate?
☐ How much pesticide mixture will you need?
   - Use the label to calculate the proper dose.

Personal Safety:
☐ Do you know the product’s characteristics and specific hazards?
   ☐ How toxic is this product?
   ☐ What hazards does it pose to handlers and the environment?
   ☐ What special precautions are called for?
☐ Do you have the personal protective equipment (PPE) the label tells you to use?
   ☐ Is it clean and usable?
☐ Do you have what you need in case of an accident (ex. to clean up a spill)?
☐ Do you have personal decontamination materials and a first-aid kit?
☐ Are others that work with or for you trained to know emergency procedures?

Environmental Safety:
Have you inspected the treatment area to locate:
☐ sensitive areas (ex. water wells)
☐ nontarget organisms (ex. livestock, pollinators)
☐ potential hazards (ex. rocks – ask I and K to help think of another/better example)
☐ Do you have a plan to protect yourself and other people working or living in or near the treatment area? ...livestock and pets? ...environmentally-sensitive areas like wells or streams? ...honeybees and other beneficial insects?

Application Equipment:
☐ Do you have a good sprayer?
☐ Does it have the right kind of nozzle?
☐ Is your equipment in good working order and properly calibrated?

Transportation:
☐ How will you move the pesticide to the application site safely?
**Mixing - Loading:**
- Do you have personal decontamination and spill cleanup materials?
- Do you have what you need to measure the pesticide and mix the spray solution or suspension?
- Do you have clean water to use to mix / dilute the pesticide?
- Do you know the dose? Do you know how much pesticide and how much water to put in your sprayer?
- Do you rinse the pesticide container when you empty it? Do you use the rinse water to make your spray mixture?

**Application Site:**
- Are the pests to be controlled in a stage where control will be effective?
  - Do you know the exact location and boundaries of the area to be treated?
  - Have you inspected the treatment area to identify sensitive areas nearby?
  - Do you have a plan to protect yourself, your co-workers, and other people working or living in or near the treatment area; sensitive areas?

**Weather Conditions:**
- Is the weather suitable for application?

**Application:**
- Have you established an application pattern?
- Do you check your application rate (dose)?
- Are you careful to make sure you're applying the pesticide in a uniform manner (applying the spray evenly)?

**Clean-Up:**
- Do you have a place, method, and time to decontaminate your PPE and application and handling equipment?
- Do you have a place to store clean PPE and other equipment until you will use them again?

**Disposal:**
- Do you know how and where to dispose of empty pesticide containers?
- If you mix too much, do you know what to do with the leftover mix?

**Storage:**
- Do you have a safe place to store pesticides?
**Follow-Up:**
Will you inspect the treated area to:
- [ ] evaluate and record the application efficacy?
- [ ] identify off target movement (if any)?
- [ ] look for unexpected results or problems?

**Emergency Response:**
- [ ] Do you know what to do in case of an accident?