Lesson Number 7

Title: Tolerances for Pesticides in Food; and The Consequences of Pesticide Misuse

Purposes / Objectives

To inform the growers about the tolerances (allowable limits) for pesticides in food.
To describe how pesticides can be used incorrectly.
To discuss some of the results of improper pesticide use.
To evaluate the consequences of pesticide misuse.

Overview

This lesson starts with the FFS trainer giving the growers information about pesticide food tolerances: what they are, why they exist, and how they are enforced.

After this short explanation, the FFS trainer leads a discussion about the effects of pesticide misuse. Some important points are listed so the FFS trainer can mention them if the farmers do not. Hopefully, this discussion will help the farmers:

- recognize the negative results of improper pesticide uses,
- evaluate these risks vs. benefits,
- choose good, safe practices, and
- avoid unsafe practices.

Materials

Recommended

Paper
Pencil

Optional

Protective clothing
Application equipment

Methods

1. Inform the growers about the tolerances (allowable limits) for pesticides in food.

Information about Pesticide Tolerances

If a crop is treated with a pesticide, some of the pesticide may remain in or on the plants when they are harvested.

If animals eat plants that were treated with pesticides, traces of these pesticides may be found in animal products: meat, milk, or eggs.

Usually pesticide residues in food are small amounts. However, if small traces of pesticides are found in many foods, these residues can add up and cause harmful effects in consumers.

The European Union is setting tolerances -- allowable limits -- for pesticides in food. Here are the EU's rules:

- Each food crop has a list of pesticides that can be used on it. Not all pesticides may be used on all crops. For example, some pesticides are allowed on plants grown for fiber, like cotton, but are NOT allowed on plants grown for food.

- If a pesticide can be used on a food crop, there is a limit on how much can be left in the crop at harvest time.

- Laboratories in the EU countries and in Mali check crops for pesticide residues. These laboratories have equipment that can find even very small amounts of pesticides. These laboratories cannot check every plant. Samples are tested.

- If food plants are tested and found to contain a pesticide that is not listed for use on the crop, they cannot be sold in the EU.

- If food plants contain too much of an allowed pesticide, they cannot be sold in the EU.

- If a crop coming from a place has an illegal pesticide (a wrong pesticide or too much of an allowed pesticide), the EU will begin to check most or all of the crops from that place. If problems continue, the UE will stop buying crops from that place.

- Malian farmers, scientists, and educators can work together to grow high-quality crops. (If label directions are followed, pesticide residues will be below tolerance levels.)

2. Discussion led by FFS Trainer about pesticide misuse and the consequences of bad practices:

Ask the growers to name bad practices -- things they think or know are improper ways to handle and use pesticides.
For each, ask them to:

- name the practice.
- describe the reasons for this practice -- why do farmers do it?
- what are the problems caused by (bad effects of) this practice?

All groups may not list every possible problem.
They may not realize it is a problem.
They may forget to mention it.
They may not want to talk about it.

If one of the important issues listed below is not mentioned, ask about it:

- Handling pesticides without using proper protective clothing and equipment:
  - long-sleeved shirt, long plants or dress, covering for the hands and feet at all times; and
  - an apron when mixing and filling.
- Handling pesticides carelessly, so they spill or splash onto people.
- Handling pesticides carelessly, so they spill or splash onto the ground.
- Using a cotton pesticide on horticultural (food) crops.
- Using too much of a pesticide (either using too much at one time, or making too many applications.)
- Reusing empty pesticide containers.

3. Ask the farmers to make a chart (like the one below) and write their answers in the boxes, OR record their comments.

Practice	Reasons for / advantages	Bad effects

Practice	Reasons for / advantages	Bad effects

Practice	Reasons for / advantages	Bad effects

Practice	Reasons for / advantages	Bad effects

Practice	Reasons for / advantages	Bad effects

Practice	Reasons for / advantages	Bad effects

Practice	Reasons for / advantages	Bad effects

Practice	Reasons for / advantages	Bad effects

4. Summarize and review the growers' responses. Be sure all the points they want to make and any questions they ask are recorded.

5. End the lesson by thanking them for their time and participation.

Notes: