

## WAREHOUSE

Infestation should be dealt with immediately and without adversely affecting food quality.

- ◆ Treatments with chemical, physical or biological agents should be carried out without posing a threat to the safety of food.
- ◆ Pesticide should be acceptable to the food control authorities.
- ◆ Packaging should be clean, free of odours and visible signs of contamination.

## LOADING CONTAINERS FOR EXPORT

- ◆ Containers should only be used to transport food grade material.
- ◆ Containers must be appropriately lined before they are stuffed.
- ◆ All conveyances must be inspected prior to loading with coffee to ensure that they are clean, dry, free of holes, free of odours and visible signs of contamination.

## SAFE HANDLING OF PESTICIDES

1. Always read the label before use.
2. Always wear protective gear (goggles, respirators, gloves and coveralls etc. ) when handling pesticides
3. Inform everyone involved in the transport and distribution, of the potential hazards of the chemical.
4. Ensure that storage containers are properly sealed and secured.
5. Always transport and store pesticides away from food and clothing.
6. Store pesticide in the original containers. If transferred, store in a sturdy containers with the appropriate labeling and warning information.
7. Always display first aid information and emergency instructions in strategic locations. Use graphics to assist poor readers.
8. Keep accurate records of purchase, usage and disposal.

**Remember:**

**Pesticides are necessary in commercial coffee production, but they must be used wisely, properly and safely!!!**

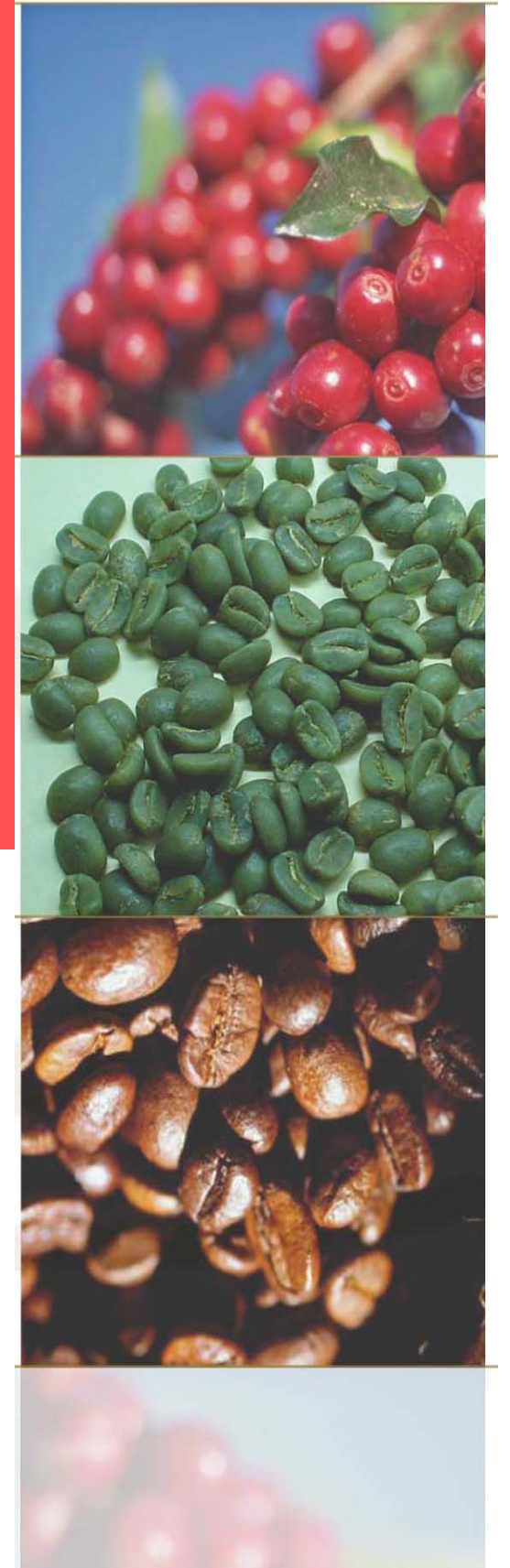
# Preventing Pesticide Contamination of Coffee



1 Willie Henry Drive, Kingston

Phone: 758-3903; 1259  
Fax: 758-3905

July 2008



What are pesticides?

Pesticides are a group of chemicals used to kill, repel, prevent or suppress pests. A pest is any living organism which is causes injury or nuisance to man, his plants, his animals or his buildings.

Pesticides are designed to control specific pest and may be grouped according to the pest which they attack:

Pesticides	Target Pests
Insecticides	Insects
Fungicides	Fungi
Herbicides	Weeds
Molluscicides	Snails and slugs
Nematicides	Nematodes
Rodenticides	Rat and other rodents
Acaricides	Mites



**MOST PESTICIDES ARE TOXIC AND COULD CAUSE ILL-EFFECTS IN YOUR BODY !!!!**

TRANSPORTATION OF COFFEE

- ◆ Where appropriate, containers should be designated and marked for food use only.
- ◆ Where the same conveyance or container is used in the transport of different food and non-food items, appropriate cleaning should take place between loads.

AT THE FACTORY

- ◆ The factory premises should be designated a “pesticide free ” zone. Prominent signage to this effect should be placed at strategic points throughout the facility.
- ◆ Locate pesticide storage facilities as far away from the processing area as possible.
- ◆ Trucks and other vehicle should never drive over coffee on barbeques.
- ◆ Maintain a clean and sanitary facility to reduce the likelihood of pest infestation ( e.g. ants, roaches, rats etc. )
- ◆ No eating should be allowed in coffee processing and storage areas.
- ◆ Treatments with chemical, physical or biological agents should be carried out with-

out posing a threat to the safety of food.

PERSONAL HYGEINE

Ensure that persons who come in contact with food are not likely to contaminate food by:

- ◆ Obtaining food handlers training and having a valid handlers permit.
- ◆ Maintaining an appropriate level of cleanliness
- ◆ Always washing hands before handling coffee, especially after coming into contact with pesticides or after handling contaminated material ).
- ◆ Adequate toilet, hand washing and changing facilities must be available for staff.
- ◆ Food handlers should wear suitable protective clothing. Street clothes must never be allowed into coffee handling areas ( e.g. in coffee sorting rooms, and packing room for roasted coffee ).





TIPS TO AVOID PESTICIDE RESIDUES  
IN COFFEE:



ON THE FARM

- ◆ Read the label to ensure that you are using the right pesticide and using it correctly.
- ◆ Do not use more than the recommended amount. Look for the information on the label or get guidance from the CIB.
- ◆ Mix only what you need to avoid having excess of the mixture to dispose of.
- ◆ Apply in the direction that wind is blowing.
- ◆ Direct chemical only unto surfaces to be treated.

- ◆ Ensure that the recommended withdrawal period is observed prior to harvesting of cherry coffee.
- ◆ Dispose of excess chemicals by burying it in a pit ( at least 3 ft deep and 2ft wide, lined with marl ).
- ◆ It is the responsibility of the farmer to provide workers with the appropriate protective gear and ensure that they follow the safety precautions when using chemicals.

POST HARVEST STORAGE OF COFFEE

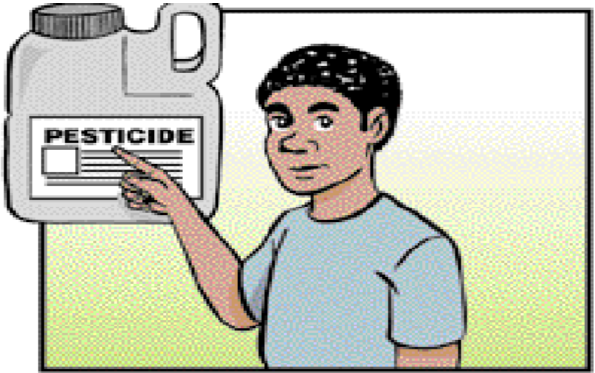
- ◆ Store coffee in containers which are clean and free of odours or chemical contaminants.
- ◆ Avoid storing coffee in the same location as pesticides, fertilizers and other agro-chemicals.



Poor cherry storage

Effects of pesticides:

All pesticides are toxic, but the degree of toxicity varies greatly. In order to inform the user, the manufacturer must provide information on the toxicity of each chemical, by putting the appropriate warning on the label.



Some of the signal words used on labels are:

- ◆ “*Danger: Poison*” ( highly toxic )
- ◆ “*Warning*” ( moderately toxic)
- ◆ “*Caution*” ( relatively low toxicity )
- ◆ “*Keep out of the reach of children*”

The following must also be included in the label information

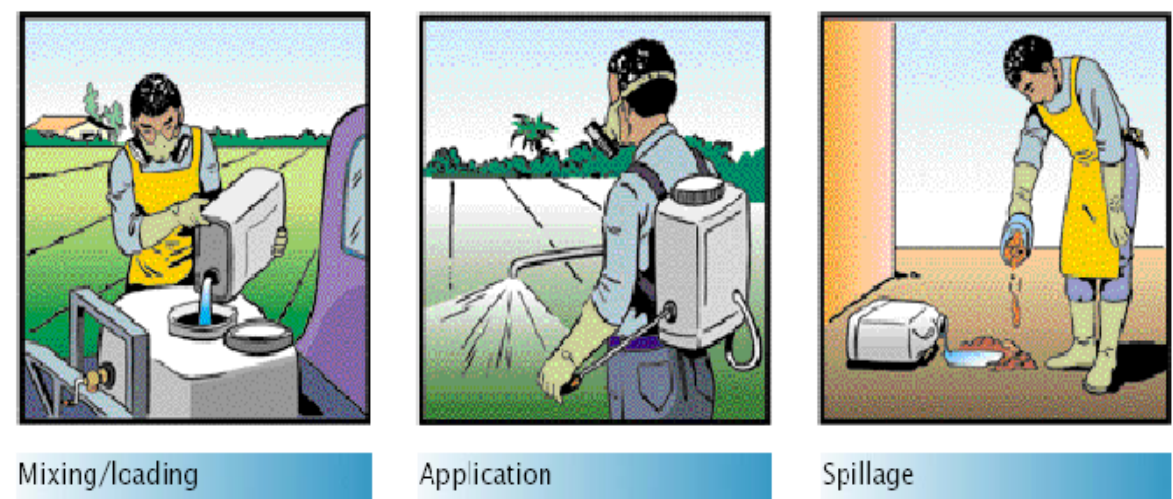
- ◆ Brand name and active ingredients
- ◆ Formulation ( e.g. bait, granules and pellets, wettable powder )
- ◆ Hazards to human, animals and the environment
- ◆ Directions for use
- ◆ Emergency first aid measures

The health effects of pesticides depend on the type of pesticide. Some, such as the organophosphates and carbamates, affect the nervous system. Others may irritate the skin or eyes. Some pesticides may be cancer causing. Others may affect the hormone system in the body:

**Acute effects** - immediately dangerous to life/health effects ( e.g. poisoning) , which require immediate medical treatment.

**Chronic illness** - adverse health effects which develop over a longer period of time ( e.g. lung disorders, asthma, cancers, infertility etc. )

**NOT ONLY YOU BUT ALSO PEOPLE STANDING OR LIVING NEARBY  
COULD BE SERIOUSLY POISONED !!!**



People can also be exposed to pesticides from contaminated coffee. Contamination of coffee can lead to residues remaining at high enough levels to cause either acute or chronic health problems!!!

Residues in coffee can be prevented by taking proper precautions in:

- ◆ Pesticide application
- ◆ Harvesting and transportation of cherries and wet/dry parchments
- ◆ Cleaning and maintenance of processing facilities
- ◆ Warehousing practices
- ◆ Using appropriate packaging material
- ◆ Practicing good personal hygiene for individuals required to handle or process coffee

