

**Agro-chemicals** are chemicals used in agriculture. They include:

**Fertilizers** – used to enhance plant growth,

**Pesticides** – used to kill pests, and  
**Health Products** – used to promote health and growth of animals.

**They come in the form of**

powders      granules  
pellets      liquid  
aerosol sprays

**Exposure to chemicals occurs during:**

- ◆ agricultural production
- ◆ packaging
- ◆ storage
- ◆ transport
- ◆ retailing
- ◆ mixing
- ◆ transfer
- ◆ application
- ◆ disposal
- ◆ recycling

**Chemicals enter the body by:**

- ◆ ingestion (swallowing)
- ◆ inhalation (breathing)
- ◆ absorption through the skin

**The Severity of Effects of Chemicals on the body depends on:**

- ❑ how harmful the chemical is,
- ❑ the route of entry to the body,
- ❑ the concentration (amount) of chemical; and
- ❑ the duration of exposure.

**Agro-Chemicals can cause:**

- ❑ skin irritation
- ❑ allergies
- ❑ respiratory distress
- ❑ headache
- ❑ dizziness
- ❑ confusion
- ❑ vomiting and diarrhea
- ❑ sweating
- ❑ blurred vision
- ❑ abdominal cramps
- ❑ nausea and weakness
- ❑ nervous disorders
- ❑ chest tightness
- ❑ cancers

*Note: signs and symptoms of chemical poisoning can be confused with food poisoning or some other illnesses.*

**Exposure to chemicals can be controlled by:**

- **eliminating** the use of chemicals where possible
- **substituting** the chemical for a safer alternative or chemical
- **isolating** the process by changing the time or place of application to reduce the number of persons exposed
- ensuring that there is adequate **ventilation** when handling chemicals
- practicing **good housekeeping**
- practicing good **personal hygiene**
- **using personal protective equipment** correctly when it is required
- **cleaning and maintaining personal protective equipment** in good order, and changing it when necessary.

### **ALWAYS**

- ✓ read labels before use
- ✓ follow instructions for use, transport and storage of chemicals
- ✓ use the smallest amount of chemical required to do the job
- ✓ clean up spills immediately
- ✓ store chemicals safely
- ✓ keep containers tightly closed when not in use
- ✓ clean and check personal protective equipment for wear and damage after use
- ✓ care equipment used during chemical handling
- ✓ wash hands and exposed areas of the body after agro-chemical use

### **NEVER**

- X use chemicals from containers without labels
- X store drinking water in empty chemical containers
- X eat, drink or smoke while using chemicals

Information about the chemical with which you are working is important in the event of an accident. You should know the chemicals you are working with and records with information about the chemicals should be kept.

Training about chemical use and reading labels should provide information about safety precautions, first aid measures, the necessity for personal protective equipment and the type that is required.

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## **Safety in the Use of**



## **Agro-chemicals**

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Promoting the attainment and maintenance of desirable standards of occupational safety and health practice in Barbados.