

**Applying Pesticides by Fumigating with Gas or Pellets**

## Scope

This control sheet is part of the ILO Chemical Control Toolkit. You should use it when the toolkit recommends control approach 2 - personal protective equipment for using pesticide. The sheet gives good practice advice on exposure control. It can be applied to all tasks in applying fumigants. It describes the key points you need to follow to help reduce exposure to an adequate level. For certain fumigants, your local authority or environmental agency may impose rules. This sheet identifies the minimum standards to protect your health. It should not be used to justify a lower standard of control than that which may be required by the product label. That label often has detailed information, which you should always follow.

## Access

- Make sure someone else knows what you are doing.
- Deny access to the fumigated space during and after the application.
- Place warning notices at entrances to tell people that it is dangerous to enter the fumigated space. Remove the notice only when you have shown that the space is safe for re-entry.

## Design - environment

- Keep products in secure storage. Lock them away in a place free from moisture and sunlight. Make sure that the store can hold back spillages.
- Make a plan for the fumigant treatment.
- Ensure that all access routes to the space can be locked
- Make sure the space has been vacated before starting work.
- Work out how much fumigant you will need and use only that amount.

## Fumigant application

### Gases and vapours

- Lay all gas lines and stack covers before connecting the gas cylinder.
- Keep gas cylinders upright and securely restrained, as close to the point of entry to the building as possible.
- Apply the fumigant gas steadily. If you see condensation appearing on the gas lines, stop the gas until this has disappeared.
- Disconnect the gas line from the cylinder once the required dose of fumigant has been applied and fix a blanking plug on the gas line. Leave it in place until the fumigation period has expired.

- If the product label says nothing, wear clean cotton coveralls.
- If you need a respirator, make sure it is fitted with a cartridge that is suitable for the fumigant you are using. Ask your supplier.
- Place a notice at the entrance stating the reasons for excluding entry, the treatment date and the treatment period.

### **Gas-generating solids**

- Take only as much pesticide as you are likely to need.
- Work swiftly from the furthest point from the exit towards the exit.
- If the product label says nothing, wear clean cotton coveralls, protective gloves, footwear, and a respirator.
- Make sure the respirator is fitted with a cartridge that is suitable for the fumigant you are using. Ask your supplier.
- If adding fumigant pellets to a grain store feed point, you will probably need to wear a respirator.
- If using fumigating powder, take great care to avoid skin contact.
- Where possible, post a notice stating the reasons for excluding entry, the treatment date and the treatment period.

### **Pesticide post-application**

- Fumigants require a period of time to work. Prevent access to the treated space until that period has elapsed.
- Wear a respirator to re-enter the treated space, and open the space to allow fumigant gases and vapours to disperse.
- Remove the residues of fumigant dusts or pellets – shovel these into a polythene bag, and seal it for safe disposal.
- Test the treated space (e.g. with a detector tube or meter) and ensure the atmosphere is safe before allowing re-entry by unprotected people

### **Protective equipment**

- Check the product label or material safety data sheet or ask your supplier to tell you what personal protective equipment you need.
- Throw disposable gloves away every time you take them off.
- If you use non-disposable gloves for powders or pellets, wash them in soapy water while wearing your respirator before taking them off.
- Look after your protective equipment. When not in use, keep it clean and store it in a clean, safe place, separate from normal clothing. Change your protective equipment when it is damaged.

### **Cleaning and housekeeping**

- Clean up all spills - shovel the waste into a sealed and marked container.
- Don't clean up dusts with a brush or compressed air.

- Never re-use a pesticide concentrate container. (See P104 for disposal).

## **Training and supervision**

- Tell your workers about any harmful properties of the substances they are working with and if they need to use personal protective equipment, why this is so.
- Tell your workers what symptoms to watch out for, and who to tell if they experience these.
- Teach your workers what to do if something goes wrong.