

Facilitating and Learning Materials

NATIONAL CERTIFICATE LEVEL I

TRADE AREA:

CASHEW VALUE CHAIN

UNIT 15:

CHEMICAL APPLICATION IN PLANTATION AND NURSERY OPERATIONS



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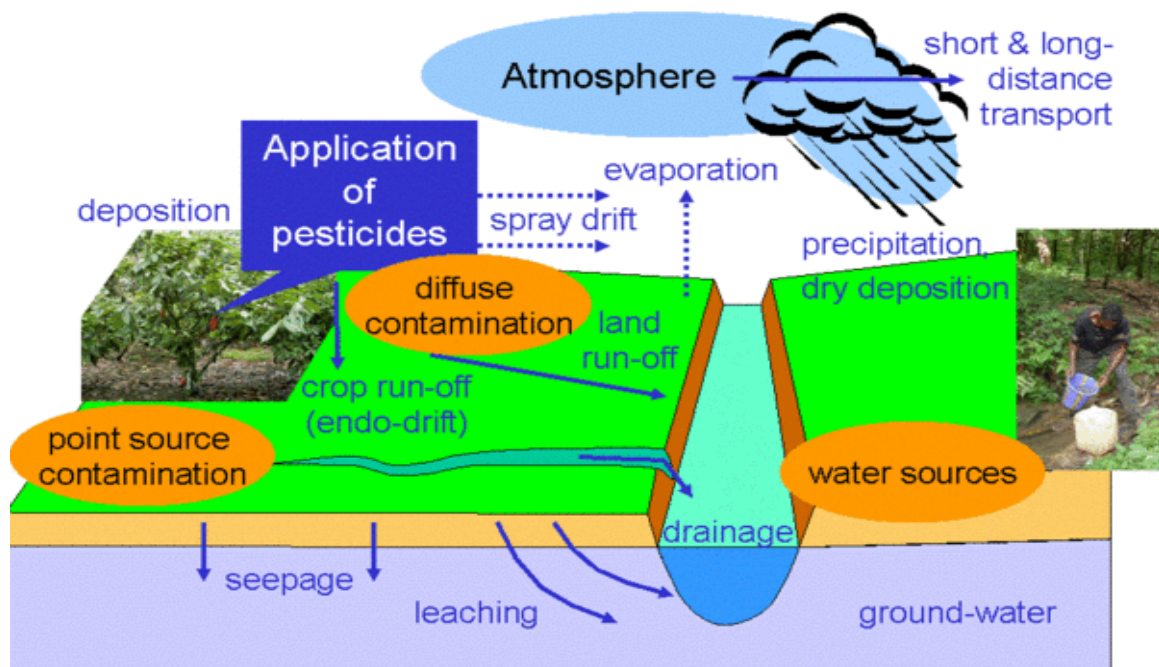
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INTRODUCTION AND PRELIMINARY NOTES

Many farmers choose to use chemicals to keep weeds and pests from destroying their crops and to add more nutrients to the soil. There are three different kinds of pesticides; herbicides, insecticides and fungicides. All three of these pesticides are used to kill different kinds of pests that can be found on a farm. Farmers that make the decision not to use any chemicals are called organic farmers.

In this module you will learn how to demonstrate skills on equipment used for chemical application in plantation and nursery operations, demonstrate skills for mixing chemicals for application, demonstrate skills for applying chemical in plantation and nursery operations, demonstrate skills for using personal protection equipment (PPE).



LO.1 Demonstrate skills for calibrating equipment used for chemical application in plantation and nursery operations

PC (a) Spraying equipment used for chemical application

Sprayers are commonly used on plantations to spray pesticides, herbicides, fungicides, and defoliants as a means of crop quality control. There are many kinds of machine-operated sprayers, the most common of which are low-pressure, high-pressure, air-carrier, and fogger types.

Spraying Equipment	
<p>Knapsack sprayer</p> <ul style="list-style-type: none"> • generally used to apply small quantities of pesticides. • both inside structures such as greenhouses and for small jobs outdoors. • usually have an air pump which compresses air into the tanks and pressurizes the spray mixture. • Operated manually by hand. 	
<p>Foggers</p> <ul style="list-style-type: none"> • Foggers are either engine-driven or electrically powered. • Release aerosol vapor through their exhaust. 	
<p>Boom sprayers</p> <ul style="list-style-type: none"> • Boom sprayers are used to apply liquid fertilizers, pesticides, or other liquids to crops during their vegetative cycle. • Boom sprayers are used on different crops on the farm, the sprayer's height is adjustable to ensure that crops receive the correct amount of the liquid being dispensed • Boom sprayers can be attached to any type of vehicle, Tractor, all-terrain vehicle and three wheeler. 	

PC (b) Reasons for calibrating spraying equipment

Applying the wrong amount of pesticide can result in poor control if not enough is used; too much being applied can lead to waste and possibly illegal usage.

If pest control is insufficient, the result might be a second application that will be more expensive due to the cost of labour involved.

If the pesticide is overused, the cost of the extra material is one consideration, but there might also be plant damage and a higher risk of pesticide moving off-site in runoff or leaching into groundwater.

Therefore it is very important to calibrate your spraying equipment to allow the correct amount of pesticide or fertiliser onto the area you intend to spray



Applying the wrong amount of pesticide can result in poor control if not enough is used; too much being applied can lead to waste and possibly illegal usage.

PC(c) Procedure for calibrating spraying equipment

For liquid applications, it is important to follow the basic procedure immaterial of what equipment is used. The procedures are as follows;

1. One needs to know the area to be sprayed,
2. How much pesticide product is needed to treat the area,
3. How much water to use so the solution will cover the treatment area.
4. Because people walk at different speeds or otherwise may operate spray equipment differently, it is important that each individual applicator perform calibration steps.
5. Equipment may vary in performance, so it's important to calibrate each piece of equipment with the applicator.
6. Determine the nozzle type and size (Flow rate)
7. Adjust nozzles spray

PC (d) Calibrate a knapsack sprayer

Proper application of pesticides is only possible with an accurately calibrated sprayer. Calibration is the process of measuring and adjusting output of application equipment in order to apply the correct amount of active ingredient per unit area. Failure to care for and correctly calibrate spray equipment can result in misapplication of pesticides, repeat applications, damaged plants, excess cost, and environmental contamination.

In brief the standard calibration procedures;

1. Select sprayer from store
2. Remove all nozzles, valves and moving parts.
3. Clean all parts properly in a solution of water and soap
4. Refit all parts
5. Fill the tank with clean water
6. Pressurized the tank and adjust nozzles as per required application.

As every sprayer has a different capacity, different nozzles with higher or lower output, a different operator who works at a different speed and pumps at a higher or lower pressure, calibration is the only answer. Here is one simple way to do it:

1. Measure exactly one litre of water into an empty sprayer and prepare it for spraying.
2. On a dry hard surface where you can see the spray wet it, walk forward, continually spraying as you would normally operate until the sprayer is empty. Measure how many square meters you have covered. Let us assume that this might be for instance, 20 square meters.
3. If your sprayer is a 15-litre model you multiply its normal capacity (15) x 20 (area one litre covered) = 300 square meters. This is the area that a whole knapsack will treat.
4. To work out how much pesticide to measure into the sprayer is now very easy. Look at the application rate on the product label.

A practical method known as Area/Volume (Volume used on marked area) is easier for a normal farmer to follow.

$$\text{Application Rate in Litre per Acre or Hectare} = \frac{\text{Plot Area}}{\text{Marked Area}} \times \text{Spray Volume used for marked area.}$$

Job Task 1: PC (d) Calibrate a knapsack sprayer

Situation: You are a chemical applicator on a small Cashew nursery. It is the time of the season to spray appropriate chemicals. You have calibrate the knapsack sprayer before chemicals are applied. Demonstrate to your skills how to calibrate the knapsack sprayer correctly.

Instructions:

1. Select knapsack sprayer
2. Remove all parts and inspect for wear and tear
3. Clean all parts properly
4. Replace all wear and tear parts
5. Refit all clean parts
6. Fill tank with clean water and pressurize tank

7. Adjust nozzles according to appropriate chemicals
8. You have 30 minutes

Performance Criteria:

1. Safety and health precautions adhere too.
2. Parts removed and inspected correctly.
3. Parts are cleaned properly
4. Cleaned parts are refit correctly
5. Wear parts are removed and replaced
6. Clean PPE
7. The time limit adhered too.

Use the checklist to follow the stated steps in how to calibrate the knapsack sprayer before chemicals are applied. Rate your own performance critically and honestly after you have completed each activity.



Excellent



Okay



Try Again

Daily PM Activities	Rate
1. Safety and health precautions adhere too.	
2. Parts removed and inspected correctly.	
3. Parts are cleaned properly	
4. Cleaned parts are refit correctly	
5. Wear parts are removed and replaced	
6. Clean PPE	
7. The time limit adhered too.	

PC (e) Calibrate a boom sprayer

Prepare boom for chemical application calibration

1. Collect boom sprayer from store
2. Remove all nozzles, valves and moving parts.
3. Inspect all parts for wear and tear
4. Clean all parts properly in a solution of water and soap
5. Refit all parts including replacement parts
6. Fill the tank with clean water
7. Pressurized the tank and adjust nozzles as per required application.
8. Boom sprayer ready for chemical application calibrations (Each chemical has a set of calibration guidelines please read and adhere too).

Job Task 2: PC (e) Calibrate boom sprayer

Situation: You are a chemical applicator on a small Cashew nursery. It is the time of the season to spray appropriate chemicals. You have calibrate the boom sprayer before chemicals are applied. Demonstrate to your skills how to calibrate the boom sprayer correctly.

Instructions:

1. Collect boom sprayer from store
2. Fit to vehicle (Tractor three-wheeler, etc.)
3. Crease all mechanical moving parts
4. Remove all parts and inspect for wear and tear
5. Clean all parts properly
6. Replace all wear and tear parts
7. Refit all clean parts
8. Fill tank with clean water and pressurize tank
9. Adjust nozzles according to appropriate chemicals
10. Drive around and test functionality of all nozzles
11. You have 45 minutes

Performance Criteria:

1. Safety and health precautions adhere too.
2. Boom fit to appropriate vehicle
3. Mechanical moving parts cleaned and creased
4. Parts removed and inspected correctly.
5. Parts cleaned properly
6. Refit and clean parts correctly
7. Wear and teared parts are removed and replaced
8. Nozzles calibrated
9. Test boom sprayer’s functionality
10. The time limit is adhered to.

Use the checklist to follow the stated steps in how to calibrate the boom sprayer correctly. Rate your own performance critically and honestly after you have completed each activity.



Excellent



Okay



Try Again

Daily PM Activities	Rate
1. Safety and health precautions adhere too.	
2. Boom fit to appropriate vehicle	
3. Mechanical moving parts cleaned and creased	
4. Parts removed and inspected correctly.	
5. Parts cleaned properly	
6. Refit and clean parts correctly	
7. Wear and teared parts are removed and replaced	
8. Nozzles calibrated	
9. Test boom sprayer’s functionality	
10. The time limit adhered too.	

Self-Assessment

PC (a) List spraying equipment used for chemical application.

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PC (b) What are the reasons for calibrating spraying equipment?

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PC(c) Name the procedure for calibrating spraying equipment.

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PC (d) How do you calibrate a knapsack?

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PC (e) How do you calibrate a boom sprayer?

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LO.2 Demonstrate skills for mixing chemicals for application

PC (a) Importance of choosing the right chemicals for application.

Pesticide use is very important to control large pest populations and there are safe, efficient ways of using chemicals to keep plants healthy and plantations or nursery clean. It's only when the wrong chemical solutions are used – or when the right chemicals are used improperly – that problems can occur.



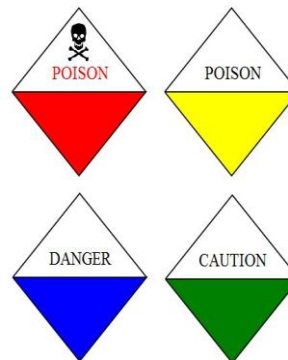
PC (b) Importance of interpreting labels of chemicals correctly and following instructions for application

Chemical labels are very important because they contain information on them about usage, direction, application and storage amongst other equally important information. Chemical labels should be designed to clearly inform us on how certain chemicals must be used or stored, which can save users from potential harm.

The signal word – Danger, Warning or Caution is found on many labels, and indicates the acute level of toxicity if the product is swallowed, spilled on skin, splashed in eyes, or inhaled. Danger Poison with a Skull and Crossbones appears on the most toxic pesticides.

These are just some of the **signals** which appear on toxic chemicals:

Pesticide Signal Words	
DANGER	Very poisonous or irritating. They should be used with extreme care because they can severely burn your skin and eyes.
WARNING	A pesticide with the word WARNING is more poisonous than those with a Caution label.
Caution	The word Caution appears on Pesticides that are the least harmful to you



HOW TO READ CHEMICAL LABELS:

Example

Touchdown Total™
 Herbicide
 Nonselective Foliar Systemic Herbicide for Weed Control

Active Ingredient	*Glyphosate: N-(phosphonomethyl) glycine	36.5%
Inert Ingredient	Other Ingredients:	63.5%
	Total:	100.0%

*Contains 500 grams per liter or 4.17 pounds per U.S. gallon of glyphosate acid.

KEEP OUT OF REACH OF CHILDREN.
CAUTION
 See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1169
 EPA Est. 100-LA-001
 SCP 1169A-L1C 0507

2.5 gallons
 Net Contents

syngenta®

Labels include: GROUP 9 HERBICIDE, iQ TECHNOLOGY, LOW FOAM, and syngenta®.

Callouts on the left side of the label identify the following information:



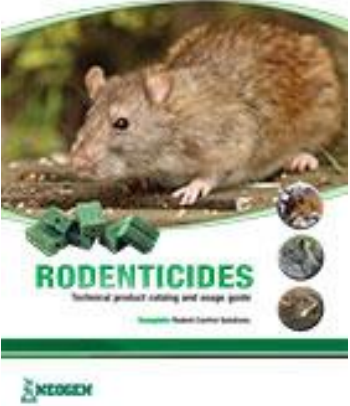



- Commercial Name: Touchdown Total™
- Active Ingredient: *Glyphosate: N-(phosphonomethyl) glycine 36.5%
- Inert Ingredient: Other Ingredients: 63.5%
- Physical Quantity: *Contains 500 grams per liter or 4.17 pounds per U.S. gallon of glyphosate acid.
- Signal Word(s): CAUTION
- EPA Registration and Establishment Numbers: EPA Reg. No. 100-1169, EPA Est. 100-LA-001, SCP 1169A-L1C 0507

PC (b) Different chemicals used in plantation and nursery operations

Many farmers choose to use chemicals to keep weeds and pests from destroying their crops and to add more nutrients to the soil. There are three different kinds of pesticides; herbicides, insecticides and fungicides.

Types of Pesticides

- Insecticides – insects.
- Herbicides – plants.
- Rodenticides – rodents (rats & mice)
- Bactericides – bacteria.
- Fungicides – fungi.
- Larvicides – larvae.

Appropriate Chemical Application	
Name of Chemical	Name of Pest
<p>Avicides</p>  <p>Used for bird control.</p>	<p>Birds</p> 
<p>Rodenticides</p>  <p>Used to kill rodents</p>	<p>Rodents</p> 
<p>Bactericides</p>  <p>Used For Bacterial control.</p>	<p>Blast</p> 

Fungicides



Used to control fungi

Anthracnose



Herbicides



Used to kill unwanted plants

Weeds



Insecticides



Used to control insects

Grasshopper & Rhinoceros



Virucides



Used to control Viruses

Crown Virus



PC(d) Select appropriate chemicals for application

Depending on the type of application you need, you will need to use the right chemicals for the right application.

Job Task 1: PC (e) Select appropriate chemicals

Situation: You are a co-worker on a small Cashew nursery. It is the time of the season to spray appropriate chemicals. Demonstrate to your employer how to correctly select the correct chemical for the correct application.

Instructions:

1. You will be given different chemicals for different applications. Choose the correct chemical to perform the correct activity.
2. Demonstrate how to handle any chemical safely.
3. You have 15 minutes

Performance Criteria:

1. Safety and health precautions adhere to.
2. Correct chemicals were selected for a specific activity.
3. The time limit is adhered to.

Use the checklist to follow the stated steps in selecting the appropriate chemical for the given application. Rate your own performance critically and honestly after you have completed each activity.



Excellent



Okay



Try Again

Daily PM Activities	Rate
1. Wearing the necessary protective equipment	
2. Correctly identify types of chemicals	
3. Correctly link the chemical to a specific application	
4. Correctly select the appropriate chemical for the specific application	

PC (e) Demonstrate safe mixing of chemicals according to recommendations on the label or as prescribed

Before using a pesticide

- Read the Label thoroughly!
- Be familiar with all precautions.
- Be familiar with First Aid information.
- Put on the proper Personal Protective Equipment (PPE)



When Mixing or Applying a Pesticide:

Never smoke or eat while mixing or applying pesticides. You could easily carry traces of the pesticide from your hands to your mouth. Also, some pesticide products are flammable.

- Follow the “Directions for Use” on the label carefully.
 - Use only for the purpose listed.
 - Use only the amount directed, at the time and under the conditions specified.
 - **Twice the amount will not do twice the job.** You could harm yourself, others, or the plant/area/pet you are trying to protect.
- Always mix or dilute the pesticide outdoors or in a well-ventilated area. Only use the amount listed on the label and measure the pesticide carefully. (Never use the same measuring cups or spoons that you use in the kitchen.)
- Mix only the amount that you need for each application. Do not prepare larger amounts to store for possible future use. The pesticide will degrade and become ineffective over time.
- Keep children, pets (including birds and fish), and toys (including pet toys) away from areas where you mix and apply pesticides for at least the length of time required on the label. If no time is listed on the label, wait until the pesticide has dried before re-entering the area.
- If clothing becomes saturated in spray solution or contaminated with the pesticide concentrate, dispose of it immediately. Wash any parts of the body that may have been exposed to the pesticide, with soap and water, and finish the job in fresh, clean clothing.
- Indoors or outdoors, never put bait for insects or rats, mice, and other rodents where small children or pets can reach it. Pesticides that are formulated as baits (containing a feed attractant) are still pesticides.
- Consider selective insecticides, with a limited range of target pests, to avoid harm to non-target organisms.

IMPORTANT -Pesticides can enter the body through inhalation, ingestion, or absorption by the skin and eyes. The skin usually receives the most exposure, so it is important to cover as much of the body as possible.

When selecting the appropriate chemical for the application the correct mixing of the chemical is the next important step.

Job Task 1: PC (e) Demonstrate safe mixing of chemicals according to recommendations on the label or as prescribed

Situation: You are a co-worker on a small Cashew nursery. It is the time of the season to spray appropriate chemicals. Demonstrate to your employer how to mix the selected or given chemicals correctly.

Instructions:

1. Given; a chemical for a specific application.
2. Read instructions on the chemicals carefully
3. Based on the instruction prepare for the mixing process
4. Select correct mixing tools and accessories
5. Demonstrate how to mix chemical safely.
6. Clean tools and accessories and store properly
7. You have 30 minutes

Performance Criteria:

1. Safety and health precautions adhere too.
2. Correct PPE wear
3. Correct mixing tools and accessories selected and used
4. Instructions on label correctly interpreted and executed.
5. Chemicals correctly mixed
6. Workplace, tools and accessories cleaned and stored properly
7. Excess chemical correctly sealed and stored
8. The time limit is adhered too.

Use the checklist to follow the stated steps in preparing and mixing the appropriate chemical for the given application. Rate your own performance critically and honestly after you have completed each activity.



Excellent



Okay



Try Again

Daily PM Activities	Rate
1. Safety and health precautions adhere too.	
2. Correct PPE wear	
3. Correct mixing tools and accessories selected and used	
4. Instructions on label correctly interpreted and executed.	
5. Chemicals correctly mixed	
6. Workplace, tools and accessories cleaned and stored properly	
7. Excess chemical correctly sealed and stored	
8. The time limit is adhered too	

Self-Assessment

PC(a) List the importance of choosing the correct chemicals

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PC(b) Why is it important to read the label?

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PC (c) What are the different type of pesticides?

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PC (d) Explain how to mix chemicals safely.

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LO.3 Demonstrate skills for applying chemical in plantation and nursery operations

PC (a) Different methods of applying chemicals

Pesticide application refers to the practical way in which pesticides, (including herbicides, fungicides, insecticides, or nematode control agents) are delivered to their biological targets either manually or done by advanced machinery.

Manually

A hand-compression sprayer basically consists of a tank for holding a liquid insecticide formulation, which can be pressurized by means of a hand pump attached to it.



Mechanical



Mechanical sprayers are commonly used on farms to spray pesticides, herbicides, fungicides, and defoliants as a means of crop quality control. There are many kinds of machine-operated sprayers, the most common of which are low-pressure, high-pressure, air-carrier, and fogger types.

Chemicals are apply through the following methods

- ✓ Band application
When you apply the pesticide in between the rows of crops rather than over the entire area.
- ✓ Broadcast application
Spreads the pesticide over the entire area
- ✓ Direct-Spray
Takes the pesticide directly to the pest while reducing its exposure to surrounding crops
- ✓ Foliar Application
For pests that usually attack leaves
- ✓ Soil Incorporation
Puts the pesticide directly into the soil by using irrigation equipment

PC (b) Importance of using the right method for chemical application

How successful a pesticide is depending on how it is used. The factors you should consider on how to use a pesticide are:

- The type of pest you wish to deal with
- The environment that the pest thrives in
- Your preferred method of delivery
- The equipment available for you to use in delivering the pesticide.
- Control measures required to reduce any potential risk to the environment or surrounding wildlife.

PC(c) Factors to consider when choosing the right method of applying

Different application methods work best on different kinds of crop.

Common methods of pesticide application are:

Growth, It is important to choose organic chemicals that will contribute to good nutrients to the crops and help them grow.

Type of crop, choose chemicals that are only suitable for the type of crop you have planted. Do not use chemicals for other type of crops as they do not share the same properties.

Target, Make sure that you are using the right chemicals for the problem you need to target.

PC (d) Identify types of chemical application equipment used

Application equipment is just as important as the method that you use. Quality and well-chosen equipment will get the correct dosage of the pesticide directly to the required area while minimizing the amount of waste and spillage.

Boom Sprayers



Hand Sprayers



Knapsack



Mist Blower



PC (e) Apply the different methods used in applying chemicals

PC (e) + PC (f) will be done simultaneously and assessed as one unit

PC(f) Demonstrate safe disposal of excess chemicals and containers as per label and industry standards

- Try take empty pesticide container to a nearby waste disposal sites.
- After emptying a pesticide container rinse it properly for disposal or recycling. Never reuse a pesticide container for any purpose!
- Be sure to wear protective clothing when rinsing pesticide containers, such as chemical resistant gloves and eye protection.
- Apply rinse water according to label directions; only where the pesticide was intended to be used.
- Do not pour rinse water into any drain or on any site not listed on the product label; it could contaminate the environment.

- If you mixed or diluted a pesticide and you have a little too much left over, try to use it up while following the label. Consider asking a neighbour if they can use any leftover mixtures.

Job Task 1: PC (e + f) Select apply and disposed of excess chemicals and containers.

Situation: You are a co-worker on a small Cashew nursery. It is the time of the season to spray appropriate chemicals. You have mixed the given or selected chemical. Demonstrate to your skills how to apply the chemical and how to dispose of excess chemicals and containers correctly.

Instructions:

12. You have mixed have already select and prepare (mix) the chemical correctly
13. Demonstrate how to apply the given chemical safely.
14. Demonstrate your knowledge and skills to dispose of excess chemicals and used containers as per chemical manufacturers instructions.
15. Clean up work area and all equipment
16. Remove PPE and wash properly
17. You have 15 minutes

Performance Criteria:

11. Safety and health precautions adhere too.
12. Apply chemical through selected methods and equipment.
13. Expose excess chemicals and containers
14. Clean work area and equipment
15. Clean PPE
16. The time limit is adhered to.

Use the checklist to follow the stated steps in how to apply the chemical and how to dispose of excess chemicals and containers correctly. Rate your own performance critically and honestly after you have completed each activity.



Excellent



Okay



Try Again

Daily PM Activities	Rate
11. Safety and health precautions adhere too.	
12. Apply chemical through selected methods and equipment.	
13. Expose excess chemicals and containers	
14. Clean work area and equipment	
15. Clean PPE	
16. The time limit is adhered to.	
17. Safety and health precautions adhere too.	

Self-Assessment

PC (a) Explain the methods of applying methods.

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PC (b) Why is it important to use the right method when applying chemicals?

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PC (c) What are the factors to consider when choosing the right methods of applying chemicals?

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PC (d) List the types of equipment used in chemical application.

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PC (e) Explain safe disposal of excess chemicals and containers.

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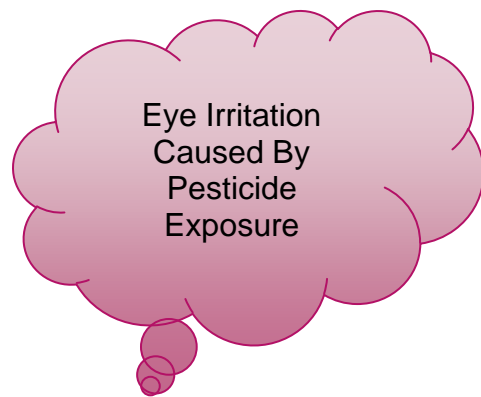
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LO.4 Demonstrate skills for using personal protection equipment (PPE)

PC (a) Explain personal protective equipment used for applying chemicals

The two most common routes of exposure when handling chemicals are inhalation and skin contact or absorption. Handling chemicals in the fume hood reduces the inhalation hazard and provides protection from splashes. Use of proper gloves and other PPE will prevent skin exposure and damage. Effects of exposure to pesticides generally fall into three categories: allergic, acute and delayed effects. Some people develop a reaction after being exposed to a certain pesticide, a process known as sensitization. Such effects include asthma, skin irritation and eye and nose irritation.



PC (b) Importance of using personal protective equipment in applying chemicals

Personal Protective equipment helps you prevent the effects of the chemicals that you will be dealing with as most of these effects are dangers and mostly deadly.







Pesticides are poisons and, unfortunately, they can harm more than just the “pests” at which they are targeted. They are toxic, and exposure to pesticides can not only cause several health effects but is linked to a range of serious illnesses and diseases in humans, from respiratory problems to cancer.

Pesticides can be acutely toxic. This means that they can cause harmful or lethal effects after a single episode of ingestion, inhalation or skin contact. The symptoms are evident shortly after exposure or can arise within 48 hours. They can present as:

- respiratory tract irritation, sore throat and/or cough
- allergic sensitisation
- eye and skin irritation
- nausea, vomiting, diarrhoea
- headache, loss of consciousness
- extreme weakness, seizures and/or death



PC (c) Identify personal protective equipment used in chemical application

(PPE)	
Long Rubber Gloves.	
Rubber Boots	
Long Sleeves and Long Pants	
Hat	
Safety Goggles	
Respirator	

PC (d) Use personal protective equipment in applying chemicals
PC (e) Demonstrate safe cleaning and storage of personal protective equipment in appropriate location

These two Performance criteria's are combined.

PPE should be properly looked after and stored in a dry, clean storage facility. Reusable PPE must be cleaned and kept in good, clean working condition.

Tips to maintain PPE

1. Inspect PPE before and after each use.
2. Take care of PPE at all times.
3. Clean all PPE after use.
4. Repair or replace damaged or broken PPE.
5. Store PPE in clean dry air - free from exposure to sunlight or contaminants



Job Task 1: PC (d + e)

PC (d) Use personal protective equipment in applying chemicals
PC (e) Demonstrate safe cleaning and storage of personal protective equipment in appropriate location

Situation: You are a chemical applicator on a small Cashew nursery. You are about to prepare and spray selected chemicals. You have mixed the given or selected chemical and are about to spray the nursery. Demonstrate to your skills how to apply the required health and safety requirements correctly, wear the appropriate PPE and how do you clean and care for your PPE after the spraying is concluded.

Instructions:

1. Select the appropriate PPE and use correctly throughout the application
2. Clean up work area and all equipment
3. Remove PPE and wash properly
4. Store appropriate PPE
5. You have 15 minutes

Performance Criteria:

1. Select and use appropriate PPE for chemical application
2. Safety and health precautions adhere too throughout the application and cleaning process.
3. Clean work area and equipment properly
4. Clean PPE safe and correctly
5. The time limit is adhered to.

Use the checklist to follow the stated steps in how to select, use and clean PPE correctly. Rate your own performance critically and honestly after you have completed each activity.



Excellent



Okay



Try Again

Daily PM Activities	Rate
1. Select and use appropriate PPE for chemical application	
2. Safety and health precautions adhere too throughout the application and cleaning process.	
3. Clean work area and equipment properly	
4. Clean PPE safe and correctly	
5. The time limit is adhered to.	

Self-Assessment

PC (a) Why do we need PPE in chemical application?

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PC (b) Explain the importance of PPE

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PC(c) List PPE used in chemical application.

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PC (d) Explain how to properly store and dispose of PPE.

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References

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