

Tend Nursery Plants



Learning Guide

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Student name:.....

Student number:.....

INTRODUCTION

Welcome to *Tend Nursery Plants*. You might need to be able to tend plants in wholesale or retail nursery work or when doing revegetation or landscaping work. This could be when you are working for your council, doing ranger work or when managing your own country. Training should be completed on the job in a plant nursery over an extended period of time.

In this learning guide the essential daily tasks of tending plants in a nursery are covered. These include nursery hygiene, watering, fertilising, weeding, pruning and keeping records.

EQUIPMENT REQUIRED

To complete this training you will need the following:

1. Appropriate Personal Protective Equipment (PPE).
2. Safety gear including first aid kit and water.
3. Access to a nursery or shade house.
4. Hand tools such as secateurs, spades, trowels and brooms.
5. Supplies such as bleach, fertilisers and herbicides.

ASSIGNMENTS

There are three assignments you will need to complete.

Some of these assignments may go towards your final assessment.

Element of Competency	Assignment	Competent (C) Not yet competent (NYC)	Date Achieved
Getting Prepared	Assignment 1. Project Risk Assessment		
Tending Nursery Plants	Assignment 2. Irrigation Check		
Finishing Up	Assignment 3. Maintenance Schedule		



It is recommended you do Undertake Propagation Activities and Pot Up Plants before doing Tend Nursery Plants.

1A. COLLECTING INFORMATION

Information about nursery work can be obtained from many sources. There are some excellent books available that will help you (see References on page 21).

There is also information available online.

1. Nursery and Garden Industry Australia has lots of resources including useful publications and a link to the Nursery and Garden Industry Northern Territory.



www.ngia.com.au

2. Information specific to horticulture in the NT can be found at the Northern Territory Horticultural Association.



www.ntha.com.au

3. Horticulture Australia Ltd has Australia wide links, including information about research in the industry.



www.horticulture.com.au

4. For Australia wide information and resources on plant propagation try the Greening Australia web site.



www.greeningaustralia.org.au

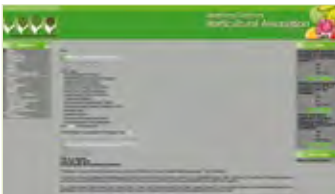
1B. TENDING PLANTS SAFELY

There are some dangers associated with propagating plants. It is important that you be aware of potential dangers so you can avoid getting injured or sick.

Personal Protective Equipment (PPE) will help protect you from serious injury, but no amount of PPE will protect you from bad workplace actions. Always follow workplace guidelines and your supervisor's directions.

Some of the things you can do to keep yourself safe include:

1. Wear thick gardening or rubber gloves at all times.
2. Wear appropriate clothes for outdoors and in wet weather wear waterproof clothing (nursery workers often work in cramped, hot, humid conditions and contact with plants can lead to dermatitis or skin lesions – make sure you cover up).
3. Wear protective footwear at all times, in some situations you may need rubber boots.
4. Keep safe distances away from other workers around hand tools.
5. Learn how to maintain and use hand tools correctly to avoid injury – always use the right tool for the job.
6. Always lift heavy objects correctly to avoid injuring your back – see Resource 1 for correct lifting procedures.
7. Know where your first aid kit is stored and make sure someone has a first aid certificate.
8. Nurseries are often hot and humid places – it is important to keep hydrated with plenty of fresh water.



RISKS WHEN HANDLING POTTING MIXES

The handling of potting mixes requires special care to protect yourself from getting sick.

Some potting mixes contain a harmful bacteria called Legionella. The bacteria can cause Legionellosis, a type of pneumonia (this is not Legionnaires disease which is caused by a different Legionella bacteria found in air conditioner cooling towers).

To reduce the risk of infection when handling potting mixes follow these recommendations:

1. Handle all mixes with care to avoid breathing in dust.
2. Moisten the mix to avoid creating dust.
3. Wear suitable PPE to avoid contact with skin and eyes – gloves, dust mask, protective eyewear.
4. Avoid transferring the potting mix from hand to mouth – wash your hands before smoking, eating or drinking, even if you wore gloves.
5. Wash work clothes regularly.
6. Clean work area by wet-sweeping or vacuuming.
7. Seal any opened bags or containers after use and store in a cool location.

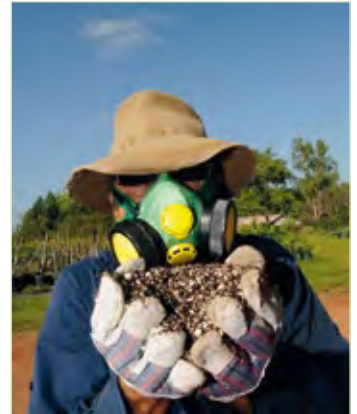
SAFE USE OF CHEMICALS

The use of chemicals (such as fertilisers, fungicides and herbicides) when working in a nursery requires some extra special precautions.

Keep all chemicals locked in an appropriate chemical cabinet. Only people with the right training should use chemicals.

The following PPE should be considered when using chemicals.

1. PVC or chemical resistant gloves.
2. Goggles or protective glasses – protect your eyes as they easily absorb chemicals (a full face shield is needed for mixing some concentrated chemicals).
3. Dust mask or respirator – prevents the inhalation of dangerous chemicals.
4. Cotton hat – protects the head from chemicals and can be washed clean after each use.
5. Rubber boots – prevents spray getting onto your feet - the overalls should cover the outside of the boots so drips don't run down the inside of the boot.
6. Cotton overalls – suitable for general chemical work and will protect work clothes underneath – wash after each use or use disposable overalls.
8. PVC apron – used to protect clothing when mixing concentrated chemicals (a PVC suit may be necessary for some dangerous chemicals).



Legionella bacteria infects the lungs when breathed in. Symptoms of Legionella infection include: fever, dry cough, breathlessness and chest pain. Other things in the potting mix can also cause lung irritation, asthma, hay fever, inflamed nose and throat – even more reason to be careful.



1 – GETTING PREPARED

Before you begin, use this checklist to confirm you have followed good safety procedures and have all the right resources.

SAFETY CHECKLIST ACTIVITY		✓
Long trousers, shirt and boots		
Hat and gloves		
Sunscreen, insect repellent and sunglasses		
Dust mask		
Additional PPE as needed		
Water		
First aid kit		



1C. TOOLS AND SUPPLIES

Using the correct tools will make propagation easier and will help to keep you free from injury.

Tick off the items you think you will need for your propagation activity.

ACTIVITY		✓
Buckets		
Bleach		
Methylated spirits		
Broom		
Secateurs		
Knife		
Wheelbarrow		
Plant trolley		
Shovels and spades		
Trowel		
Watering can		
Hoses		
Fertiliser		
Herbicides		
Spray unit		
Rubbish bins		

1 – GETTING PREPARED



1D. HYGIENE

Losing plants to disease can be very disappointing, especially as it takes a lot of time and energy to grow good plants. Nursery diseases, such as fungus, viruses and bacteria can spread quickly through a nursery killing plants. Maintaining good hygiene standards will help stop the spread of disease or weeds.

A nursery can contain various shadehouses, glasshouses, potting areas, hardening off areas in the sun, storage facilities and workers' rest areas. Diseases are spread on any surface, via wind, in water, in potting mixes, on plant material or on boots and clothing of workers or visitors.

PEOPLE – KEEP YOURSELF CLEAN

Nursery workers or visitors moving from one area to another can spread plant diseases. Often this is done through clothing or mud on boots.

- Keep your boots and clothes clean when working in a nursery.
- Wash your hands regularly with an antiseptic soap.
- Restrict the movement of visitors into propagating areas of the nursery.
- In areas where things need to be sterile a footbath of bleach can be used to remove diseases from boots before people enter.



POTS AND EQUIPMENT

Pots, trays, labels and equipment such as trowels, wheelbarrows and spades can introduce disease problems if they are re-used without thoroughly cleaning to sterilise them first.

- Scrub off any soil first.
- Soak pots and trays in a bleach solution (10 ml bleach per litre of water) for 20 minutes.
- Make sure you rinse thoroughly with clean water to remove all the bleach.
- Equipment should be washed in the same bleach solution and then rinsed.



SECATEURS AND KNIVES FOR CUTTINGS

- Secateurs and knives should be sterilised in methylated spirits.
- Resterilise them often to stop disease spreading from sick to healthy plants

POTTING MIXES

Potting mixes can spread fungal and bacterial diseases. Use only sterilised potting media. Never reuse old potting mixes – recycle these into the compost.

PLANT MATERIAL

Propagating material (seeds and cuttings) might harbour plant diseases that can be spread into the nursery. Ensure all propagating material selected is healthy and disease free.



PROPAGATING AREAS

Benches and shelving can all harbour diseases. All bench surfaces will need to be wiped with the bleach solution (10 ml bleach per litre of water) before you start work.

Airborne seeds and spores can enter the nursery propagating areas through open vents and doorways. Keep areas closed or screened if this becomes a problem.

PLANTS

Make sure there are good spaces between all the plants in the nursery to all good ventilation – if plants are too close together they can get sick. In glasshouses opening up shutters and using fans can help increase ventilation.

It is important to remove any dead or diseased plants from the nursery quickly. Report large numbers of dead plants to your supervisor – maybe there is a problem with too much or not enough water, over fertilising or a disease outbreak etc.

Remove any diseased or infected plants immediately from the nursery. Don't allow removed diseased material or weeds to lie on the floor. Dispose of this material immediately in the appropriate fashion well away from the nursery to avoid re-infection.

Old plants that have been in the nursery too long might be top heavy, root bound and unhealthy. They should be removed as they won't grow well and look unsightly and unprofessional in the nursery.

Germinating seedlings that rot off or collapse at the soil line as soon as they emerge are suffering from a damping-off disease. Check on germinating seedlings daily and throw out any infected containers immediately. For control of root rot or damping off disease use a registered biological fungicide according to manufacturer's recommendations. Don't over-sow seeds and hence avoid overcrowding of seedlings and don't plant seeds too deep. If necessary cleanse larger seeds in weak bleach solution.

PATHS AND FLOORS

Make sure all areas in the nursery are well drained. Poor drainage encourages algae to form which can provide a breeding ground for diseases and pests.

- Paths and floors should be kept clean and free from algae to reduce disease and stop people slipping over.
- Scrub all pathways with bleach and a stiff broom to remove algae

WATER






Fungus and weed seeds can be introduced into a nursery through contaminated water. Use only clean water in your nursery to water your plants. Use hooks to keep hoses up off the floor as dirty hose nozzles can spread plant disease.



PROJECT RISK ASSESSMENT



- Stop and think before starting work.
- What needs to be done so you can work safely?
- Complete the **What to do about it?** column – we have written one thing in each box – try and think of some others.
- Fill in all of the last row by adding a new hazard.

HAZARD and what can happen = the risk	What to do about it?
<p>SUN EXPOSURE </p> <p>Risk of: Heat exhaustion, dehydration and sunburn</p>	<ul style="list-style-type: none"> • Wear sunscreen • • •
<p>WORKING WITH SOIL </p> <p>Risk of: Soil borne diseases</p>	<ul style="list-style-type: none"> • Wash hands before eating • • •
<p>TRIP HAZARDS </p> <p>Risk of: Injury from falling over</p>	<ul style="list-style-type: none"> • Roll up hoses when not in use • • •
<p>WET SLIPPERY AREAS </p> <p>Risk of: Injury from slipping over</p>	<ul style="list-style-type: none"> • Keep paths free of algae • • •
<p>USE OF CHEMICALS </p> <p>Risk of: Poisoning</p>	<ul style="list-style-type: none"> • Wear protective clothing • • •
	<ul style="list-style-type: none"> • • • •

2A. WATERING

Water is an essential part of growing nursery plants. Too much or too little water can stop plant growth.

- Too much water can cause damping off, diseases, leaching of nutrients and pollution of groundwater.
- Too little water and plants will wilt, and then die.

How much water to use will depend on the irrigation system, the potting mix, the weather and the type of plants. Generally plants are watered a few times a day to ensure the mix stays moist but not waterlogged. Any watering system used in a nursery should conform to the standards developed by Nursery and Garden Industry Australia. It is recommended you undertake *Install Micro-irrigation Systems* to learn more about irrigation.

TYPES OF WATERING SYSTEMS

There are four main forms of watering systems in a nursery:

Overhead irrigation

Overhead sprinklers are designed to cover a large area. Watering via this method can be wasteful as most of the water will fall between the pots. This can cause considerable run off and can contribute to groundwater pollution. Using a timed water system to deliver water frequently throughout the day may help reduce this run off. Water delivered to plants can be affected by wind. Windbreaks can be used to reduce this.

Drip irrigation

Usually used for larger container plants this method uses a lot less water and is suitable where water restrictions are in place. This method also allows workers to continue maintaining plants when they are being irrigated. Some disadvantages are that the system is expensive and requires high levels of maintenance to clear pipes and drips.

Hand watering

This is a common method in smaller or backyard nurseries. The advantages are that water can be delivered at times and in amounts as deemed appropriate by the operator. This method is however very time consuming and is not very water efficient, thus is expensive. Other disadvantages are that in hot weather it may not be possible to keep up with the water requirements of plants, and, someone has to be present every day.

Ebb and flow mat

Increasingly nursery plants are being watered via an 'ebb and flow' mat. Here water is supplied via a mat to the bottom of the pot and it moves up through the potting mix. This system has the advantage of saving water as it is delivered directly to the root zone however such systems can be costly.



2 – TENDING NURSERY PLANTS



DAILY WATER CHECKS

- Check plant containers for adequate water. This can be done simply by sticking your finger in the potting media to see how wet it is (there are now cheap tensiometers available to electronically test the water levels in plant pots).
- Run and check all irrigation systems separately to make sure they are working adequately.
- Check all overhead sprinklers for leaks, clogged or blocked nozzles.
- Check all drips, clean and replace if clogged.
- Check operating pressure of the water - it might be a good idea to check the flow rates over a large area to ensure water is distributed evenly.
- Check and clean all micro filters.
- Flush any lines that are blocked.
- Check wiring to all solenoids and controllers for damage. Rats often chew wiring.



2B. TEMPERATURE

Temperature control in the nursery is very important. Plants are living things and need certain temperature conditions to germinate and grow properly. Temperature can also affect the rate of uptake of nutrients, and the growth and spread of plant diseases. Air temperatures of 20° to 25°C are ideal and extremes in temperature and humidity should be avoided.



COOLING

In summer or in the Top End wet season you might have to consider cooling down plants or cooling down nursery structures. Heat stress can be fatal to plants and high temperatures also encourage fungal and other diseases. There are a range of digital thermometers specifically designed for nursery situations.

Cooling can be by:

- Mists, fogs and spraying water to cool the air temperature, or providing extra irrigation to the plants so they can cool themselves (roof sprinklers can be used).
- Cover poly or glasshouses with shade cloth to stop too much sun entering.
- Place temporary shades over plants to reduce temperature and heat stress.
- Open up glass house windows and vents to allow airflow so hot air can escape
- An exhaust fan will extract out hot stale air and draw in cool fresh air.
- Inside glass and polyhouses use fans and commercial air circulators to keep temperature down.
- Some modern greenhouses allow automated control of temperature such as evaporative airconditioners, external retractable shade systems and automated vents.



HEATING

Nurseries often grow plants in a greenhouse or a polyhouse designed to protect plants from cold weather. They are usually made from glass or plastic and allow for light and ventilation. In some cases you can also use sun tunnels or outdoor tunnels for propagation. These use the sun to increase the temperature of the propagating beds.

When propagating plants in cold areas (especially where the temperature drops below 15 degrees) you can increase temperatures by:

- Using under bed or bench heaters – these heaters warm the pots of the plants to stimulate root growth. Temperature for cuttings to make root growth might need to be in the range of 30° to 32°C.
- Cover germinating boxes with plastic covers to help increase the temperature.

Pipe heating using hot water or gas fired heaters can be used to heat the whole greenhouse or polyhouse environment.



2C. FERTILISING

WHY FERTILISE?

Fertilisers help to supply nutrients that plants need to stay healthy. Nutrient deficiencies will make weak slow growing plants that are susceptible to pests and diseases.

Plant nutrients are normally divided into two types:

1. Macronutrients e.g. Nitrogen (N), Phosphorous (P), Potassium (K), Calcium (Ca) and Sulfur (S).
2. Micronutrients e.g. Iron (Fe), Manganese (Mn), Zinc (Zn), Copper (Cu) and Boron (B).

Nutrient deficiencies can show up as the following:

- Plants look unusually shaped, unhealthy or stunted.
- Leaves turning yellow or turn yellow between the veins.
- Leaves look twisted or stunted.
- Leaves dying from the edges inwards.
- Leaves have dead spots.
- Leaves turn dark green with tints of purple.

TYPES OF FERTILISER

To fix nutrient deficiencies the correct rate and type of fertiliser will need to be applied. There are many different types of commercially available fertilisers and are available in two forms:

1. Organic
2. Inorganic.

All the fertilisers, no matter what form, vary in the ratios of macro and micronutrients. Normally the label will show the ratios of nitrogen to



2 – TENDING NURSERY PLANTS



phosphorous to potassium (N: P: K). The labels also should show the complete nutrient analysis.

Some fertilisers when applied are available immediately to the plant where as some are slow release or controlled release.

APPLYING FERTILISER

Always follow your supervisor’s and the manufacturer’s guidelines for when and how much fertiliser to apply.

Fertilisers can be applied directly to the containers or dissolved in water and delivered through the irrigation system.

Note: Some native species require no or little fertilisers and others such as Grevilleas don’t like excessive amounts of Phosphorous so care needs to be used with the choice of fertiliser used. There are slow release fertilisers available specifically designed of some native plants that should be considered.

Seed mixes do not need fertiliser as seeds have their own in built fertiliser.

For plants that have been pricked out you can apply a slow release fertiliser regularly to the plants in their pots (or add the slow release fertiliser to the potting mix). Alternatively fertilise weekly with liquid seaweed based fertiliser. Don’t use too much fertiliser on young plants and keep it away from the stem of the plant.

ACTIVITY

In conjunction with your supervisor examine a range of plants in the nursery and discuss any nutrient deficiencies seen.

Plant symptom	Fertiliser regime
yellow leaves	xxxxxxxxxxxxxxxxxxxx

2D. WEEDING AND HERBICIDES

WHY WEED

Removing weeds is an ongoing job in a nursery. Weeds usually enter the nursery through water, in the potting media or via wind blown seed.

- Weeds in plant containers compete for nutrients and water and weaken the growth of the plant (they also look unsightly and give a very unprofessional image when plants are sold).
- Weeds also grow rapidly along pathways, under benches and along driveways - especially where there is irrigation water high in nutrients (these weeds can be a hazard to visitors, can harbor pests and also be a source of weed seed for container contamination).



WEEDING METHODS

Hand weeding

The simplest solution is to hand weed. When weeding pots be careful not to pull out roots of the main plant along with the weed. The smaller the weeds the easier they will be to remove and the less damage occurs to the main plant's roots. All hand pulled weeds should be composted or destroyed.

Using herbicides

There are a whole range of herbicides that can be used on nursery plants to kill existing weeds and stop weeds growing. It would be a good idea to undertake Treat Weeds if you are going to use herbicides. Always follow the instructions on the label carefully and wear good PPE.



Mowing and slashing

Areas around the nursery should be regularly mowed or slashed. Only properly trained people should use motorised machinery and good PPE should be worn.



ACTIVITY

Weed control should always start with the correct identification of weeds. In conjunction with your supervisor look around your nursery and identify as many weeds as you can.

Where	Control method
Cracks of path	spray

2 – TENDING NURSERY PLANTS



2E. PEST MANAGEMENT

Keep pests such as rats, possums and birds and plant eating insects out of the nursery areas as they can spread disease and damage plants.

- Cover seed germinating trays with wire cages to deter seed eating rodents (mice and rats).
- Screen off entranceways to shade houses to stop birds and insects entering.
- Look for caterpillars under pots or in potting media as they may come out and feed at night and hide during the day.
- Use suitable pesticide such as pyrethrum or a natural bacterial insect spray to control caterpillars and other insects.
- Only properly trained people should use pesticides as they can be very dangerous – always follow the instructions on the label carefully and wear good PPE.

2F. PRUNING

Pruning is sometimes necessary in the nursery. For instance, if the top of the plant grows too quickly for the roots, it may be necessary to top-prune to remove excess foliage. In some instances top-pruning can stimulate root growth and reduce the rate at which water is lost via the leaves. Pruning may also be done to make the plants all uniform in height and to reshape odd growing plants. Top-pruning can also be done to reduce the size of plants if they need to be shipped out in containers. Top-pruning should never remove more than one third of the plants growth.

Grasses herbs and small shrubs normally respond well to top pruning however pruning perennial species can in some instances deform the natural shape of the plant e.g. single stemmed trees may reshoot into an undesirable bushy form.

IRRIGATION CHECK

In conjunction with your supervisor check all the irrigation system components in your nursery.

Describe or draw your irrigation set up and list any problems you have found. Indicate the tools you used to carry out the task and list any replacement parts used. Provide your written report to your supervisor.

3

FINISHING UP

3A. RECORD KEEPING

MAINTENANCE SCHEDULE

Normally all nursery activities are governed by a schedule of activities. The activities might be arranged according to a set time frame. Each nursery will be different. Here are some ideas:

Daily tasks

- Standing up fallen over plants
- Check watering system
- Sterilise tools, equipment and benches for propagation
- Monitor plants for growth, disease, need for potting up etc.

Weekly tasks

- Remove mould from pathways
- Remove dead and diseased plants

Monthly tasks

- Fertiliser application
- Herbicide application
- Pesticide application
- Pruning

Seasonal tasks

- Reverse flush watering system

OTHER RECORDS

1. Horticultural records: such as propagation records, plant production records, growing schedules, environmental parameters, date of treatments, type of treatment and rate of treatment.
2. Financial records: here nursery managers keep track of labor spent on activities, money spent on materials and also includes overhead expenses etc.

Record keeping can also be very simple such as keeping a daily diary. This is a very useful exercise. Recording simple things such as the date, all the activities you did for the day, any problems and any observations about the plants etc. More detailed records may be kept for individual practices such as propagating where it might be useful to record the date, time of propagation, the propagator's name, any treatments, seed lots, cutting numbers, seed treatments etc



3B. CLEANING UP

It is important for many reasons that all working areas are kept clean and tidy. Messy and dirty work areas are not only a safety hazard they can also help spread plant diseases.

Clean and store away all tools used. All benches should be cleared and wiped down with a disinfectant such as diluted bleach (10 ml bleach per litre of water). All floors should be swept to remove all plant material and left over potting mix as these can also be a safety hazard. Wash or hose off the floors. All pathways need to be kept clear.

In any nursery situation it will be very important to keep cross contamination of plant material to a minimum (ie. we don't want to mix diseased soil or plant material with fresh).

3C. TOOL MAINTENANCE

To make the next job easy and to prevent personal injury it is very important to keep tools in good condition. Follow the steps below each time the tools are used:

- Wash all tools of mud and dirt and oil any metal parts to prevent rusting. Steel wool and a light oil will remove any surface rust.
- Keep tools sharp and in good working order. Bevel the back edge of a spade off with a bench grinder or a coarse sharpening stone.
- Replace any broken handles. Never use bush sticks as handles as they often break causing injury.
- Sand and oil all wooden handles to avoid getting nasty splinters. Use 50% mineral turpentine and 50% raw linseed oil on wood.

3D. DISPOSAL OF WASTE MATERIAL

Normally when working in a nursery there is a range of unwanted waste material left over that needs to be dealt with. Things such as old or broken pots/tubes, unused root bound plants, unwanted cutting material, surplus potting media, soil, fertiliser, bags, tags, packaging material, signs, mulch, plant debris and faulty irrigation parts. It is best practice when finished to leave a completely clean working area free of rubbish. All material should be disposed of according to local council guidelines and the Waste Management and Pollution Control Act.

Methods of waste disposal could include:

- Organic waste: mulch and composting is suitable for plant debris. For cardboard and paper recycle.
- Inorganic waste: plastic/metal/paper based materials may be recycled, reused or returned to manufacturer - for inorganic material that cannot be recycled it is best to take them to an authorised landfill (do not burn old containers as the gases given off are toxic).



3 – FINISHING UP

Always clean up and dispose of, or recycle, your old pots.

It is important to consider how material will be disposed of or recycled. There might be off-site implications to consider such as disposal of chemicals, ground water, and nutrients.

ACTIVITY

List methods for dealing with the following waste material on your worksite:

Waste	Disposal/recycling method
Plant parts	
Cardboard and paper	
Used soil	
Plastic pots/trays etc.	
Plastic bags/wrapping	
Used chemical containers	
Old cutting material	

MAINTENANCE SCHEDULE

Develop a maintenance schedule for your nursery. Keep a daily dairy of all activities carried out when working in the nursery tending plants. Write down all the activities you carried out on the maintenance schedule and make reports to your supervisor about any problems you encountered.

Activity	Maintenance	Date
<i>Checked tools</i>	repair shovel handle sharpened axe	21/4/2010

RESOURCE 1: BASICS OF GOOD LIFTING

Correct handling of materials is important to ensure a safe working environment. Improper lifting techniques can lead to back pain and learning the right way to lift will help you avoid this.



1. Plan ahead

- Size up the object and test to see if it is possible to lift by yourself
- Clear a path and make sure there are no obstacles in your way
- Practice the lifting motion before you lift the object

2. Lifting the object

- Place your feet shoulder width apart with your feet close to the object
- Keep the object close to your body
- Bend your knees and tighten your stomach muscles
- Get a firm hold on the object and stand up slowly keeping your back straight
- Let your legs do the lifting work
- Take short steps and do not twist

3. Putting the object down

- Keep the object close to your body
- Bend your knees and keep your back straight
- Let your legs do the work
- Wait until it is firmly in place before letting go



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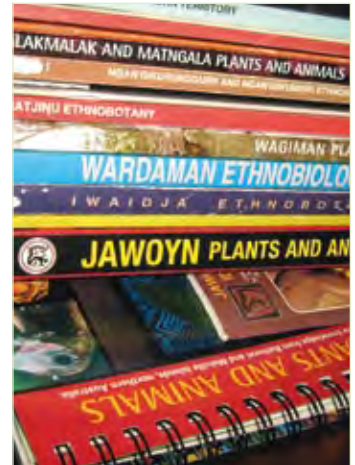
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Go to the **Resources** section of Greening Australia's website (www.greeningaustralia.org.au) for more information about books – look for the link to NT publications.

ALEP

Aboriginal Landcare Education Program

ALEP Learning Guides. These full colour, step-by-step guides provide practical, easy to follow instructions. Based in the Top End of the Northern Territory, they can also be adapted to other regions.



GETTING READY

1. ALEP Learning Guides – Trainer's Guide
2. Carry Out Natural Area Restoration Works

RECOGNISING PLANTS

3. Recognise Plants
4. Collect, Prepare and Preserve Plant Specimens

GROWING PLANTS

5. Collect, Treat and Store Seed
6. Maintain Properties and Structures
7. Install Micro-irrigation Systems
8. Undertake Propagation Activities
9. Pot Up Plants

10. Tend Nursery Plants

MANAGING COUNTRY

11. Treat Weeds
12. Install Maintain and Repair Fencing
13. Plant Trees and Shrubs
14. Perform Basic Water Quality Tests

In this learning guide, *Tend Nursery Plants*, you will learn how to:

- PREPARE TO TEND PLANTS
- TEND NURSERY PLANTS
- CLEAN UP AND MAINTAIN TOOLS

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For further information contact Greening Australia (NT) Ltd on
(08) 89811344 or info@nt.greeningaustralia.org.au or go to www.greeningaustralia.org.au



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