

## **PLANT MAINTENANCE IN THE NURSERY**

### **Pre emergent herbicide:**

The best way to keep the plants as weed free as possible is by using a pre emergent herbicide. A pre emergent herbicide prevents seeds from germinating and therefore is only effective when applied to an area of soil that is already weed free. The first application of this is on the first day the plant has been bagged up. The plant leaves the shed and is watered and then the herbicide is applied. After that it is reapplied every twelve weeks to ensure a weed free plant. If there are weeds present at this stage the plant must be hand weeded prior to the herbicide being applied.

A plant that is kept weed free will grow quicker and healthier as it doesn't have to compete with other plants (weeds) for the available nutrients and water and sunlight.

It is important to remember it is a chemical spray and only to be used with caution after proper instruction on its use. Do not use if you are pregnant, or think you may be. Take into account other people around you and if they are in a zone that may affect them either ask them to move away, or come back to it. Follow the correct instructions in regard to quantity needed. Always wear gloves.

Apply as per instructions onto the plants. Special care must be taken with any plant that the chemical can get stuck in the middle of such as cabbage tree and flax – rather than sprinkling over the top of these species go around the plant. Rinse off the plant after use. On the back of the master label at the front of the group put a tick beside the date it was due for the pre emergent and write the date it is next due – twelve weeks time.

### **Hand weeding:**

Prior to applying a pre emergent it may be necessary to hand weed the plant if weeds are present. It is vital to remove all the weeds, however tiny they may be as the spray will not kill seedlings. Remove the whole weed with the roots to prevent it sprouting again. Secateurs are useful when weeding as cutting the weed well below the surface will prevent it growing back. Leave as much potting mix in the pot as possible. Place all weeds into a bucket and dispose of them into the weed heap. Avoid leaving the weeds lying around the nursery as the weed seeds may blow around. They will also rot down and may cause problems with pests and disease.

### **Irrigation:**

Watering in the nursery is done automatically through an irrigation computer. However it is vital to observe the condition of the plants for any signs of over watering or dryness. If there are any concerns please let the manager know as soon as possible so changes can be made. At times it may be necessary to hand water – there are four taps in the nursery that hoses can be attached to for this purpose. If signs of wilting are visible it is vital to water the plants as soon as possible. Reasons for the plants becoming too dry may include:

- Pump problems
- Power cut resulting in no water
- Incorrect settings on the irrigation computer

- Very windy conditions can result in uneven watering patterns
- Broken irrigation pipes

Over watering is not good for the plants as it can lead to rots caused by fungal problems. If plants are looking too sodden it may be time to cut down on the irrigation, or it may be caused by very wet weather conditions. Please inform the manager.

### **Trimming:**

Some plants will require trimming while other plants never get trimmed, for example cabbage trees and kanuka. For each species clear instructions and a demonstration will be done on the correct method. Plant material trimmed from the plants needs to be removed from the nursery and placed on the rubbish pile for organic waste.

### **Fertilisers:**

Generally fertilisers will not be needed as there is adequate in the potting mix to keep the plant healthy for almost a year. However if it is required it is vital to follow the correct application rate as instructed. Plants will only uptake the amount of nutrients they require and excess is not needed and may harm the plant. Take care when applying to ensure an even amount is given to each plant and as little as possible falls on the weed mat.

There are two types of fertiliser used in the nursery and each has a different purpose. One is a product designed to quickly green up a plant; it is used when the plant big enough in size and needed for an order but not looking green enough. It is a short lived product that acts quickly. This product is called 'Daltons top-dress'. The second product is slower to show the benefits but longer lasting; this is used when the plant isn't looking healthy due to being in the pot too long but isn't needed for an order for 3-4 months. This product is called 'Agroblen 3-4 month'. It is a slow release fertiliser. Which fertiliser is applied will depend on the reason for applying it.

### **Pest control:**

From time to time issues of plant damage will occur. It is important to correctly identify the problem and remedy it. For slug or snail damage apply slug bait. The product is potent and to be applied sparingly and away from animals. Aphids and scale appear at times; a healthy plant is less likely to be attacked so ensure the plants have adequate air flow, are well watered and weeded. If there is a problem apply spray oil as per instructions on the container. Use the knapsack labelled insecticides and fungicides. Spray oil works by smothering the insect and therefore killing it. Be careful not to spray in the heat of the day as this may result in the plant being burnt by the sun. Apply every two weeks until the plants are clear of the insects. Dead scale remains on the plant, to check whether it is dead pick one off and squash it. If it is liquid inside it is alive and if it is powdery it is dead.

### **Fungal and bacterial problems:**

Prevention is the number one rule here. Do not leave piles of rotting plant material lying around, ensure plants get adequate air flow and keep a close watch on irrigation levels – not too wet and not too dry. If any signs appear, treat that entire species in the nursery to a copper spray and continue every 2-4 weeks until clear. Signs of fungal and bacterial problems can include plants rotting off or dark spots appearing on the leaves (particularly in autumn). It is vital to treat as soon as possible to prevent it spreading throughout the group.

## **Rabbit control:**

It is very important to watch for any sign of rabbit activity in or near the nursery. Signs that there may be rabbits present are:

- Rabbit droppings – they often go in certain places so it is in ‘piles’
- Fresh diggings in the soil around the nursery
- Plants eaten, look for very clean cuts that look like a scissor has snipped the plant
- Rabbits running around!

There are four bait stations set up around the nursery. When there are rabbits present these need to be filled twice a week with Pindone rabbit bait. It is a poison so it is essential there are no pets around the nursery and to always wear gloves when handling the bait. The Pindone is to be kept locked up and in the spray shed to ensure safety to staff and any visitors on site.

## **Throw outs:**

At times there will be dead plants that need throwing out. Before the plants are removed from the nursery the plants must be counted and the species and number of dead ones recorded into the write off book. This ensures the stock numbers on the computer are accurate and therefore management knows exactly how many plants are in the nursery.