



## Nursery and plant husbandry guidelines

**Objective in the nursery: To grow up plants with a good root system, ready for planting out from autumn to October, and to anticipate plant varieties required for the season ahead.**

### Watering

- DOC ranger turns water in nursery on and off for watering system. We turn it on for volunteers, and if we turn it on we need to turn it off when we leave.
- Check on young plants; they need watering every 2 days
- Check hoses for leaks
- Don't put plants on top of hoses in the nursery
- Check for pukeko damage in nursery – especially round the edges. Stand up any fallen plants
- Check outer corners are being watered – hand water if necessary. Sprinkler system waters in a circle so corners may get missed
- Pricked-out seedlings need to be watered gently to below flood level. Bagged plants need to be watered to flood level at least twice.

### Seeds and seed collection

- Seed trays: Check the viability of each seed – not mushy or hollow. Use a shallow tray for fine seeds. For karaka and bigger seeds use a deeper polystyrene tray with holes in the bottom
- Don't fill trays too deep - max 8 cms of soil
- Soil coverage depth: size of seed plus 20%
- When collecting and storing seeds, keep plastic bags open
- Prioritise ngaio and five finger seeds particularly – there is only a short time frame for collection.

### Pricking out.

- Plants to be pricked out are normally in the dedicated holding bay D2 – see nursery floor plan
- Roots are more important than the seedling. Cull the weak seedlings
- Hold very small seedlings by the leaf not the stem as the stem is easily crushed
- Fill the bag to around 75%, place seedling and continue to add soil mix, planting the seedling a little deep at first. Finally pull the plant up gently to the correct depth (the level it was planted in the seed tray) and firm up the soil around it
- Fill bags to 1 cm below the top of the bag. Leaving just 1 cm from the top means that when the mix settles, the top of the bag does not fold over and deflect rain or irrigation water

- 1 plant per bag
- Do not lift more seedlings from seed tray than can be comfortably pricked out in the time available. Complete one tray before starting another.

### **Bagging on**

- First ask: Is bagging on warranted? Is it going to be planted out soon?
- Remove plant from bag – keep bag and put into correct sized bin
- If necessary, trim roots. Remove any weeds
- Choose a larger grade bag, and fill 20%. Place the plant in the bag, and continue to fill, ensuring the new mix is pushed around the root ball. Finally gently pull the plant up to 1-2 cm below the top of the bag. Add the required soil to once again have the plant firmly in place and soil to 1 cm below top of the bag
- 1 plant per bag.

**PB 3** use for cabbage trees and flax

**PB3 and PB 5 bags** for sub-canopy trees such as: Karamu and Taupata (the coprosmas), Houpara (five finger), Koromiko (hebe), Whau, Mapou, grasses (Carex), Mahoe (whiteywood), Toitoi, Kawakawa (pepper)

**PB5 and PB 8 bags** for big canopy trees: Kauri, Kohekohe, Pohutukawa, Rewarewa, Kahikatea, Puriri, Kowhai, Nikau, Pigeonwood, Rimu, Totara.

### **Root Trainers**

- Root trainers are stored in the old cowshed – the small shed on the track, near the outside compost bags.
- Small flax, cabbage trees and grasses/rushes can be pricked out directly into root trainers
- Manuka and Kanuka do not like having their roots disturbed when moving seedlings from a seed tray to a PB. So they are sown directly into root trainers. Scatter that seed directly over the full root trainers. Cover the seed lightly with fine soil
- Expect individual root trainers to have more than one Manuka / Kanuka seedling. Do not be tempted to thin these as it too will disturb the roots
- When watering root trainers pay particular attention to the outside cells. They will be drier.

### **Depending on the size and skill level of your group, consider:**

- Setting up the tables for pricking out, and filling the soil into poly boxes. Do not remove plants from the seed trays faster than you can bag them up. Choose suitable people to be at the end of the chain for quality control
- If weeding, choose either to take tables out into the nursery to avoid extra carrying or if the weather is too hot bring plants back to the woolshed. Use the opportunity to top up the bags with fresh soil, consolidate plants of the same species and remove any netting if it is no longer required and plants are beginning to grow through it
- If the carrying is beyond the ability of your crew then make use of the group as a whole before or after the BBQ.