rdination Field Checklist 3: Felling/inoculation of Trap Tree Plots (TTP)

Nematode preparation

- Nematodes (1 million per sachet) should be pre-ordered from Ecogrow Pty Ltd (some months prior), to enable delivery to match field schedule
- Once received the sachets are to be laid flat on and separated by corrugated cardboard
- Store refrigerated (approx. 5° C DO NOT freeze)
 - 1 sachet of dried gel crystals will be supplied with each nematode sachet

Nematode mixing

- A dissecting microscope can be used to check viability (NOT a requirement)
 - Examine a droplet from the sachet on a glass slide and observe (curled / moving = healthy). Do not use if no active movement.
- Use a sauce or similar squeezable container (volume > 500 ml)
- Add <u>1 nematode sachet</u> into <u>500 ml of clean water</u> (bottled or tank water preferable)
- Shake vigorously to mix (<u>nematode-water mix</u>)

Gel mixing

- o Add <u>1 gel sachet</u> (without delay) into the <u>nematode-water mix</u> and reseal
- o <u>Immediately</u> vigorously shake while up-ending the mix
 - Resultant gel slurry can take several minutes to form (temperature dependent)
 - Adequate inoculum for 1 full TTP (dependent on tree size)
- Larger containers ease mixing
- Keep the nematode gel slurry cool in a portable cooler
- Only make-up what is required for the day's inoculations
- Discard any leftover nematode gel slurry (renew each day)

Tree felling

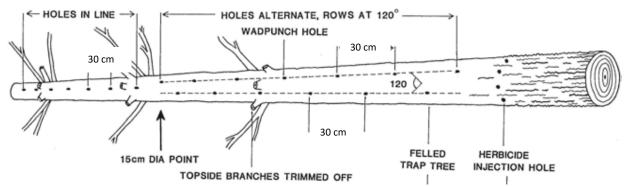
- All trees in each TTP are to be felled
- As far as is possible fell each tree into the stand (not into the open)
- Avoid cross-felling trees (inhibits inoculation and data collection)
- o Prune the limbs on the upper stem surface to assist inoculation
 - Leave the lower limbs (assist in keeping the stem off the ground)
- o Do not dock off the upper unpruned section of the tree
- Trees can be felled a day prior to inoculation

Punch holes

- Using the sirex <u>inoculation hammer</u> (with inserted punch) <u>punch</u> along the upper pruned stem
 - Ensure the punch plugs eject continually from the inoculation hammer
 - Aim to achieve punch holes of 10-15 mm depth (excluding bark)
- Punch hole spacing is 30 cm

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- Double row punch hole spacing (left and right of the upper stem face) from the log butt up to 15cm stem diameter
 - Very lower bole area can be avoided if excessive bark thickness
- Single row punch hole spacing from 15 cm stem diameter along the remainder of the achievable upper stem



. Tip – the handle of the punch hammer has a bend approx. 15cm from the handle end and 30cm from the punch end. Use this as a handy measure for spacing and diameter break points.

Nematode gel application

- Inject nematode mix from the squeeze bottle to the bottom of the punch hole until just overfull
- Remove the squeeze bottle and with one's finger press the gel firmly into the hole (ensures gel fills the entire hole)
- o Do not inoculate trees if heavy rain is imminent
 - Gel may wash out
- o Do not inoculate trees if temperature is likely to exceed 30°C
 - Gel may dry out inhibiting nematode transfer

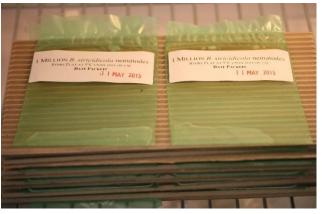
Tool Kit

 Take a spare grub screw and Allen key, spare rebound rubbers, a pin punch and hammer (for clearing occasional punch blockages).



Nematodes are mixed and jellified within a clear soft squeeze bottle (sauce or cake icing bottle).

Inoculation hammer punch and discarded cores (note smooth



Biocontrol nematodes are to be stored flat in a fridge and separated by corrugated cardboard