

Harvesting dung beetles from nurseries



Getting started

It is important to make every attempt to harvest beetles from the nurseries so that we can ensure we are breeding the most successful species and not repeating consistent nursery failures.

Equipment

The following equipment or similar items will help with harvesting dung beetles from nurseries and/or paddocks.

- Plastic tray (ie: propagation tray, cat litter tray, food container)
- 3-4mm sieve
- Coarse sand
- Ventilated container with a lid
- Sterile medium if beetles are being shipped (vermiculite or coir peat)

Trap and transfer

2-3 weeks before seasonal emergence is forecast, dig the plastic tray into the ground so it sits flush with the soil in the nursery. Fill the tray with coarse sand or a non-clumping medium that is easily sieved. Place fresh (drench free) dung on top of the sand each week to and check regularly for evidence of

beetles emerging (soil casts or tunnelling). (Image 2).

Every 1-2 days, remove the tray and sieve the beetles from the sand (Image 3). Any beetles that shouldn't be in the nursery, sort these from your nursery species and release them in a paddock.

Refill and return the sand tray with a new fresh dung pat and repeat this step every few days to harvest beetles from the nursery and move them to your smaller nursery if you have a purchased kit (Image 4 and 5), alternatively, release the harvested beetles directly into a paddock or share with a neighbour.



Nursery with harvesting tray

Tools of the trade



PP (small) release tent

Set up the release tent in a paddock close to current grazing rotations so there is a fresh supply of dung close by when you open the tent (image 1).

Count the harvested beetles as you collect them from the nursery and record numbers each time for our citizen science project. Contain the beetles in a ventilated container and then transfer them to your release tent (PP tent for those with a nursery kit). Repeat this process every few days until no more dung beetles are emerging from the nursery. As the beetles are emerging over a period of several weeks, it is good to contain them to promote more successful breeding numbers than letting them go into paddocks and disperse for the first generation.

Feeding in the release tent

Once beetles have been transferred to the release tent over a period of 4-6 weeks, feed them the same way you did in the starter nursery, however; once all the soil has been worked in the release tent (2-4 weeks), open the shade cloth and allow remaining beetles to escape over 24hrs, then close the tent. The beetles have worked the soil in the release tent and this becomes full of broods ready for next season. Repeat feed, breed and release from your release tent each year. In between cycles, only routine maintenance is needed to keep grass height down and water during drier seasons so the broods don't desiccate.

You can also keep 100 harvested beetles and set up a new starter colony, or supply a neighbour with the beetles to set up their own starter colony and nursery.

Fact Sheet

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Keep up to date with what's happening

For more information about this project or our other activities please contact Karen Thomas on karen.thomas@melbournewater.com.au or visit <https://www.melbournewater.com.au/building-and-works/projects/dung-beetle-nursery-network>

For an interpreter, please call the Translating and Interpreting Service (TIS National) on 13 14 50




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