

- ▶ **Awareness activities**
- ▶ **Monitoring activities**
- ▶ **Increasing dung beetles**



What is DBEE?

The Dung Beetle Ecosystem Engineers (DBEE) project is a five-year project supported by MLA through funding from the Australian Government's Rural Research & Development for Profit program. The project is designed to bring together science and community organisations to increase our knowledge about and access to dung beetles.

Who can get involved?

Anybody can get involved. There are numerous options. For example, dung beetle monitoring can give you an idea of which beetle species are in your area. A local dung beetle event can help people in your area understand the value of dung beetles in agriculture. The project is trialling farm nurseries as a way for community groups and schools to increase dung beetle populations.

What's involved?

Your level of involvement can depend on the activity. DBEE will provide protocols for project activities. Some activities are self-run and intermittent and can be carried out by individuals or a group. The more intensive project activities require regular participation and contributions and so are more suited to farming or Landcare groups.

1) Awareness activities

Improving community knowledge of the significant productivity and environmental benefits that dung beetles can provide is a key part of the DBEE project. Community and farming groups around Australia have incorporated dung beetles into their events. This could include any of the monitoring activities along with a dung beetle identification session. DBEE team members can sometimes be available to attend and present at workshops and field days. Plenty of prior notice is needed as they are often busy with monitoring field work.



2) Monitoring activities

The DBEE project is surveying regions across Australia to gather more information about which species are found where, where there are gaps and which species have adapted successfully in different climatic zones. Individuals and groups can contribute and support the national database to help us learn more about dung beetle distribution in Australia. This will identify gaps in dung beetle distribution that could potentially be filled with currently available or new species.

Long-term intensive monitoring will take place at 120 sites across Australia in cooperation with the DBEE team.

DBEE will provide instructions to help with monitoring.

How do you find dung beetles?

Dung beetles can be lured into traps using – yes – dung! DBEE will provide information to show you how to set up a pitfall or flotation trap.

How effective are your dung beetles?

We will show you how to assess dung pads to determine the level of burial or tunnelling and whether the beetles are bringing subsoil to the surface by the beetles.

- ▶ Get the smartphone app and report dung beetle activity.
- ▶ Get the dung beetle identification booklet.
- ▶ Help is available so you can send us a photo or collect and send some dung beetles to DBEE to identify.

The research is led by Charles Sturt University through funding from the Australian Government Department of Agriculture as part of its Rural R&D for Profit program, with support from eight partner organisations:

The University of Western Australia, CSIRO, Manaaki Whenua – Landcare Research, The University of New England, Dung Beetle Solutions International, Warren Catchments Council, Mingenew-Irwin Group and the Western Australian Department of Primary Industries and Regional Development.

www.dungbeetles.com.au



Beetles with benefits



3) Increasing dung beetles

Dung beetle start-up colonies are available from a number of commercial suppliers at certain times of year. Under the right conditions beetles can establish and increase in number over a number of years and eventually self-maintain on farm.

There are a number of activities that groups have carried out to increase the population of a key dung beetle species in their area, and DBEE project is working with project partners to determine methods for successful rearing of dung beetles. This includes newly introduced species or established species that need a bit of help to increase their numbers.

Some regions may have a recent deficiency of dung beetles due to adverse conditions such as drought. Field cropping and reintroduction can be carried out when conditions improve. Trapping beetles in an area where they are more abundant and releasing in sites where there is sufficient dung can give a population boost.

Are there dung beetle species that you think might fit in your region?

Establishment trials can find out whether particular dung beetle species will breed successfully in your area.

Field rearing of newly introduced species in on farm nurseries will be carried out as part of the DBEE. Project partners will be rearing newly introduced dung beetles to increase their numbers across their preferred climatic zones.

Questions?

Visit our website for answers to frequently asked questions. Or contact our project team at:

dungbeetles@csu.edu.au

This information is intended as preliminary introduction for those interested in DBEE.
For more detailed information the trial/monitoring protocols are available from:

www.dungbeetles.com.au