



South Sydney Home Composting and Worm Farming Program

CASE STUDY

South Sydney City Council⁽¹⁾

Project rationale

The average Australian garbage bin contains up to 50% garden and food waste. In the South Sydney City Council (SSCC)⁽¹⁾ area, this figure is probably around 40% because of the smaller size of gardens. The Home Composting and Worm Farming Program therefore targets the largest waste stream in domestic garbage bins for reuse at source, doing away with the need for collection and associated transport and pollution impacts including greenhouse gas emissions.

Table 1 below shows an estimate of the annual environmental and economic benefits of home composting, based on a March 2002 survey of 250 households, of which 22% said they either compost or worm farm. It indicates the estimated potential annual tonnages and associated costs, which may be diverted from landfill based on low, medium and high home composting and worm farming rates.

Table 1. The estimated annual environmental and economic benefits of home composting and worm farming in South Sydney.

Total number of households in SSCC local government area (pre 8 May 2003)	Estimated percentage and number of households diverting organics *	Potential amounts of organics diverted per week through composting or worm farming	Annual cost-benefit of not disposing to landfill @ \$94 per tonne	Annual tonnage potentially diverted from landfill
40,000	22% = 8,800	5 kg's (low)	\$209,432	2,228 tonnes
40,000	22% = 8,800	10 kg's (medium)	\$418,864	4,456 tonnes
40,000	22% = 8,800	15 kg's (high)	\$628,296	6,684 tonnes

Project funding

The project is funded through the SSCC⁽¹⁾ Domestic Waste Management Charge. A conservative estimate for materials and time to conduct the program is \$10,000 to \$12,000 per year (this includes wages, materials used and free products distributed to residents).

Project stakeholders

SSCC⁽¹⁾ and its residents and community, as well as other communities such as those at Lucas Heights where the landfill is located, and those in the transport corridor (along which the garbage trucks travel) between SSCC⁽¹⁾ and Rockdale or Artarmon Waste Service NSW Transfer Stations and eventually Lucas Heights landfill.

Project targets

This is a broad project targeting SSCC⁽¹⁾ residents of all ages and nationalities.

⁽¹⁾ South Sydney City Council is now part of the Council of the City of Sydney

Project description

The Home Composting and Worm Farming Program is an ongoing project since 1999. Over 1,200 residents (about 300 per year) have participated in this hands-on waste minimisation education course.

The program evolved as a distinct module from "Earthworks" and "Waste Not Want Not", originally run by the South Sydney Waste Board. These programs provided the framework and methodology for the Home Composting and Worm Farming Program, which involves weekend workshops for all residents and targets garden and food waste at source. The Program has been tailored to suit the needs of inner city residents in terms of content, delivery time and a hands-on approach. A free compost bin or worm farm is provided as an incentive for participants.



Project methods

Interested residents attend a two-hour weekend workshop on Home Composting and Worm Farming. These are held throughout the year. (In 2003, 12 workshops were held.)

At the beginning of the workshop, participants are asked about the kind of dwelling they live in, what they are hoping to get out of the workshop and what they know about home composting and worm farming. This information is used to tailor the workshop content to suit the particular needs of the group. For example, if most residents live in units the focus tends to be on worm farming rather than composting. If some participants have had positive or negative experiences these are shared, valued and discussed further.

The workshops are held at Roseberry Community Centre, a Council owned property managed by Eastern Respite Services. A permaculture garden developed by UNSW Eco-Living Program is used as the hands-on demonstration site. Workshops are face-to-face and hands-on, and include theory, question time and discussion. Participants then have the opportunity to practice this through assisting in setting up a working worm farm and compost bin themselves.

On completion of the workshop, each participant fills out an evaluation form.

Project resources

- The project materials distributed during the workshops include the existing "Easy Guides" to Composting, Worm Farming, Mulching, Recycling, Green Cleaning – available from the Department of the Environment and Conservation (NSW) internet website.
- The factsheet, "Benefits of organic materials in soils".
- Other reference materials.

How was the project evaluated?

All participants complete a workshop evaluation in which they rate the course numerically and indicate their level of understanding of composting, worm farming and waste issues. Participants also indicate in their evaluation the most and least useful aspects of the workshop and other issues they think should be covered.

Follow-up surveys with participants, two years after they have attended a workshop, have been conducted for monitoring purposes.

An attempt has been made to quantify the environmental and economic benefits of the program (see Table 1).

Project outcomes

Changes in...	Qualitative or quantitative data indicating change
Knowledge/awareness	Following participation in the 2003 workshops, 95% of participants indicated they had a better understanding of composting, worm farming and waste issues.
Attitudes/ motivation	These workshops have been a stepping stone in motivating residents to become active in other facets of sustainable living, such as water conservation, energy conservation and organic gardening.
Behaviour	The follow-up survey revealed that 80% of participants were still composting or worm farming two years after completing the workshop.
Other changes (e.g., infrastructure/ organisational)	There is a flow on effect as workshop participants pass on their skills in composting and wormfarming to others.

Environmental outcomes

The percentage of resources recycled/recovered in the SSCC⁽¹⁾ area has been increasing since 1999-2000. Table 1 above indicates the potential for reduction in landfill with the onsite reuse of food and garden waste through composting and worm farming.

It may be possible, given further research, to quantify the reduction in greenhouse gas emissions as a result of fewer truck movements and minimised methane production in landfill. In addition, the use of finished compost product minimises usage of artificial fertilisers.



How will the outcomes/learning be maintained/reinforced?

This is an ongoing education program.

Other relevant information

Access to education staff and personal contact are vital to education programs such as this.

A demonstration site, where people can see the composting and worm farming in action, is crucial to its success. Ideally, a site where all materials can also be stored on-site gives greater flexibility in presenting workshops and minimises time spent in transporting, unpacking, setting up, and re-packing materials. All additional time used beyond the actual workshop adds to the cost of the project.



For more information

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