

We bury a huge amount of food scraps and other organic rubbish in landfill every day. This waste breaks down in anaerobic conditions producing methane, a gas that is over 20 times more harmful to the environment than carbon dioxide. All organic food waste collected by Globalworming is vermicomposted (fed to worms) - an aerobic process which produces one of the best known organic fertilisers.



ABN 27 211 887 225

Report on organic waste collection from the Living Green Festival 2012

14th October 2012

On Sunday the 14th October 2012, the organisers of the Living Green Festival (LGF) arranged for Global worming to provide wheelie bins at the waste stations of the event in Canberra. These bins were made available to festival attendees and were also used by several operators of food outlets to collect organic waste such as food scraps, coffee grinds, orange peel and pulp, tea bags, bread and paper towels. This waste was subsequently fed to worms to be recycled into an organic fertiliser—a process which is called vermicomposting.

Number of bins and capacity at the LGF in 2012

At the festival a total of 6 wheelie bins were made available with a total standing capacity of 1,440 litres.

Table 1: Number of bins and capacity, LGF, 14th October 2012

Waste stations (2)	
Number of bins	
- 120 litre wheelie bins	0
- 240 litre wheelie bins	6
Total	6
Total capacity of bins (Litres)	1,440

Volume and weight of waste collected at LGF

Globalworming keeps detailed records of the weight of waste that is collected and any contaminants that are found in organic waste bins (inorganic material such as straws, plastic bottles and aluminium cans). Additionally, the volume of waste was estimated based on how full the bins were.

Total organic waste collected at LGF

Over 300 kilograms (**303.2 kg**) of organic waste was collected on the 14th October 2012 at the LGF with an uncompressed volume of **1,315 litres** (Table 2). The volume of this organic waste was estimated uncompressed (or natural compression) prior to weighing.

The majority of the weight of organic waste collected was from the peel and pulp of oranges and other fruit along with coffee grinds. The majority of the volume of organic waste collected was from the compostable plates and cups. The stallholder that contributed a considerable amount of fruit peel and pulp used 20 litre plastic buckets in 2012 (as opposed to plastic bags that were used in 2011). When the buckets were full the contents were disposed of in the organic waste wheelie bin which led to some compression of the waste in the bin.

Table 2: Organic waste collected, Sunday the 14th October 2012

Source	Total weight	Approximate volume ^(a) (uncompressed)
Global worming bins		
- organic	303.2 kg	1,315 litres
- inorganic	0.5 kg	2 litres
TOTAL ORGANIC WASTE	303.2 kg	1,315 litres

(a) Estimate of the uncompressed volume - the volume that the organic waste takes up in the bins at the time of the collection where there has only been natural compression of the organic waste.

Contaminants

In 2012 the waste stations were managed by volunteers from 'Wastebusters'. Following on, there were very few inorganic contaminants found in the organic waste collection wheelie bins. Some inorganic contaminants were still found including

- Non compostable cutlery (one or two stall holders may have used some non-compostable cutlery)
- Small non-compostable plastic sauce containers
- One aluminium can and one empty tuna can

Overall the collection worked very well and the volunteers from 'Wastebusters' did an excellent job sorting the waste.

Organic waste collection for LGF in 2012 compared with 2011

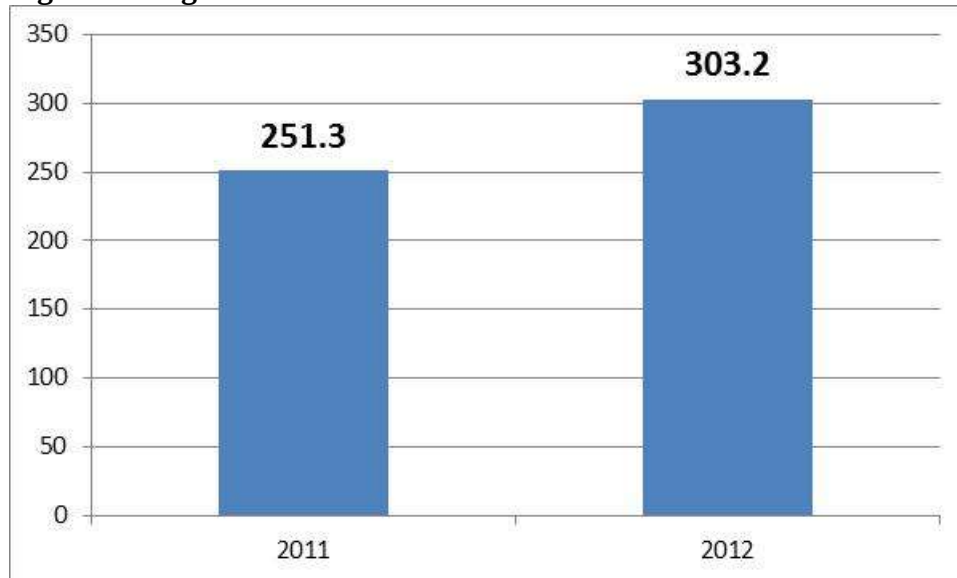
There was an increase in both the weight and volume of organic waste collected in 2012 compared with 2011.

There was a 21% increase in the amount of waste collected from the LGF in 2012 compared with 2011 (Figure 1). This is likely to be due to several factors including

- Growth in the size of the LGF
- Higher 'capture' of organic waste due to the operation of 'Wastebusters'

As volunteers went through the recycling and general waste streams in 2011 to extract as much organic waste as possible (this was provided to Global worming soon after the 2011 LGF) most of the increase in the amount of organic waste collected is likely to be as a result of growth in the number of visitors to the LGF.

Figure 1: Organic waste collected from the LGF in 2011 and 2012



Why collect organic waste?

Reduces waste going to landfill

In Australia well over half of the waste that is buried in landfills is organic. It is becoming increasingly expensive to dispose of waste in this way.

Reduces methane production

As organic waste breaks down in anaerobic conditions (like in landfill) it produces methane, a gas that is over 20 times more harmful to the environment than carbon dioxide. Vermicomposting is an aerobic process.

Recycles organic waste into a natural fertiliser and long term carbon sink

When organic waste is buried in landfills, the nutrients are lost. This seems bizarre given the reliance of Australian farmers on chemical fertilisers (largely a by-product of the petrochemical industry) and the very low carbon stores in Australian soils. Vermicompost is a complete soil conditioner that greatly improves the structure of soil and is a long term carbon sink.

FURTHER ENQUIRIES:

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