

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 2014

12th October 2014

On Sunday the 12th October 2014, the organisers of the Living Green Festival (LGF) arranged for Global worming to provide wheelie bins at the waste stations to collect all organic waste from 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 plates. 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 2014

At the festival a total of 8 wheelie bins were made available with a total standing capacity of 1,920 litres.

Table 1: Number of bins and capacity, LGF, 12th October 2014

Waste stations (2)	
Number of bins	
- 120 litre wheelie bins	4
- 240 litre wheelie bins	6
Total	8
Total capacity of bins (Litres)	1,920

Volume and weight of waste collected at LGF

Global worming 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 **320 kilograms of organic waste** was collected on the 12th October 2014 at the LGF with an uncompressed volume of **660 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.

Table 2: Organic waste collected, Sunday the 12th October 2014

Source	Total weight	Approximate volume ^(a) (uncompressed)
Global worming bins		
- organic	320.8 kg	660 litres
- inorganic	< 0.5 kg	2 litres
TOTAL ORGANIC WASTE	320.8 kg	660 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 2014 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

- Soft plastics
- Plastic bottles and aluminium cans (which were not sold on site at the LGF)

Overall the collection worked very well and the volunteers from 'Wastebusters' did an excellent job ensuring that there were few contaminants in the organic waste.

It should be noted that the majority of paper plates and cutlery were disposed of in the recycling bins in 2014 whereas in previous years it was put in the Global worming organic wheelie bins. These items can be recycled or composted.

Organic waste collection for LGF in 2014 compared with previous years

There was a slight decrease in the weight of organic waste collected in 2014 compared with 2013 and a very large decrease in the volume of organic waste collected (Figures 1 and 2). These declines resulted from the majority of paper plates and compostable items being disposed of in the recycling bins in 2014 rather than the organic wheelie bins. In previous years of the LGF all compostable items were placed in the organic bins. The paper plates and other compostable serving containers have a very large volume to weight ratio compared to foodscraps (i.e. they are light weight but take up a large volume).

It is estimated that around 700 litres of organic waste, which could have been disposed of in the organic wheelie bins, was diverted into recycling bins in 2014. In previous years, this waste was disposed of in the organic wheelie bins. This waste would have weighed approximately 41 kilograms, assuming that the majority of this waste was paper plates and compostable serving containers. Therefore, if the waste from the Living Green Festival had have been disposed of in the same way in 2014 as it was in previous years, **362 kilograms of organic waste would have been collected in 2014, which is 6% higher than collected in 2013.**

Figure 1: Weight of organic waste collected from the LGF

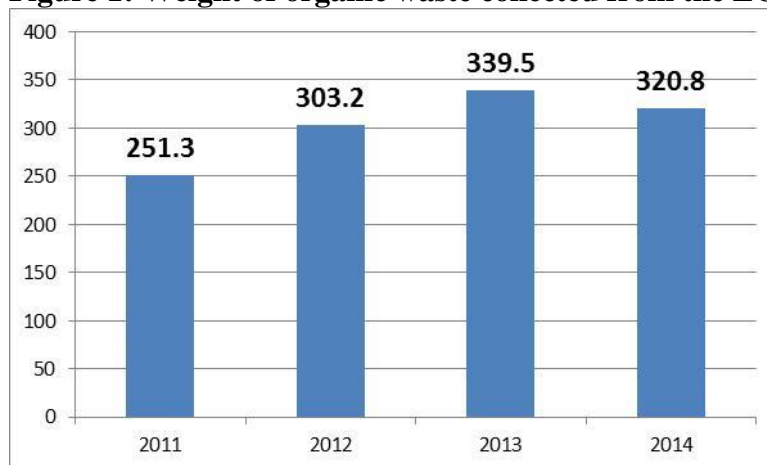
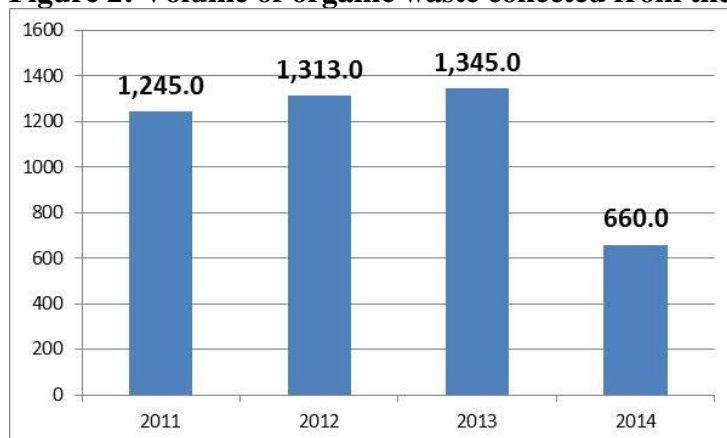


Figure 2: Volume of organic waste collected from the LGF



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. Vermicast is a complete soil conditioner that greatly improves the structure of soil and is a long term carbon sink.

FURTHER ENQUIRIES:

Cid Riley

Globalworming

Mobile: 0408 496767

Bungendore road, Tarago NSW, 2580

Email: globalworming@mail.com

