

# The Big Picture of Waste



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## What we waste

Organic waste is the poorest handled waste stream in Australia. Australia produces 43.7 million tonnes (06/07) of waste



A landfill in operation.

per year. Almost half of this is organic waste at 20 million tonnes (06/07) per year. Of this, 68% or 13.6 million tonnes are sent landfill. The national waste report 2010 estimated that by 2020/2021, this figure will be 81 million tonnes.

Most organic waste is produced by municipalities such as the area where you

live.

Waste in this list includes very useful products such as crushed rock and soil. These materials are termed 'waste', however most are readily reused.

Commercial and Industrial waste (C&I) accounts for 14.5 million tonnes per year or 33% of the total, of which 55.6% is recycled.

Demolition material constitutes the largest fraction of waste, being 16.51 million tonnes or 38% of the waste. This waste requires very little work to become recoverable and constitutes the easiest waste to recover, with 58% being recovered.

The material produced in homes is the smallest fraction of all waste streams, 12.7 million tonnes. This waste stream is the single largest source of

waste that goes to landfill. 7.6 million tonnes, less than 40% of this waste, is recycled.

Of the total 40 million tonnes, 27.2 million tonnes of this is being sent to landfill.

Organic waste disposed of at landfill will produce at least one tonne of emissions per tonne of weight. At a cost of \$23 per tonne of CO<sub>2</sub>-equivalent emissions, it will cost \$623 million dollars per year.

If farmers started taking organics for recycling to the legal limit before licensing becomes compulsory, there would be enough organic waste to run 22,667 small organic farms by the year 2021.

Waste costs are at \$50 (\$60kpa) to \$150 (\$180kpa) per tonne of organics (range of income for farm at legal limit).

## What can this waste be used for

Organic waste the most poorly managed of all waste streams. It can be converted through various processes to an environmentally beneficial end product.

Currently, 66% of the four to five million tonnes of fertiliser we use per annum is imported from overseas. Fertiliser is derived from natural gas and mining activities. This process requires vast amounts of

energy including mining and transportation to processing facilities. These synthetic fertilisers traverse the earth in their various forms until the final product is sent to Australia.

The carbon footprint on locally made organic carbon fertiliser recovered from landfill or ocean outfall, will generally have a carbon negative value, as using it assists in carbon sequestration in the soil.

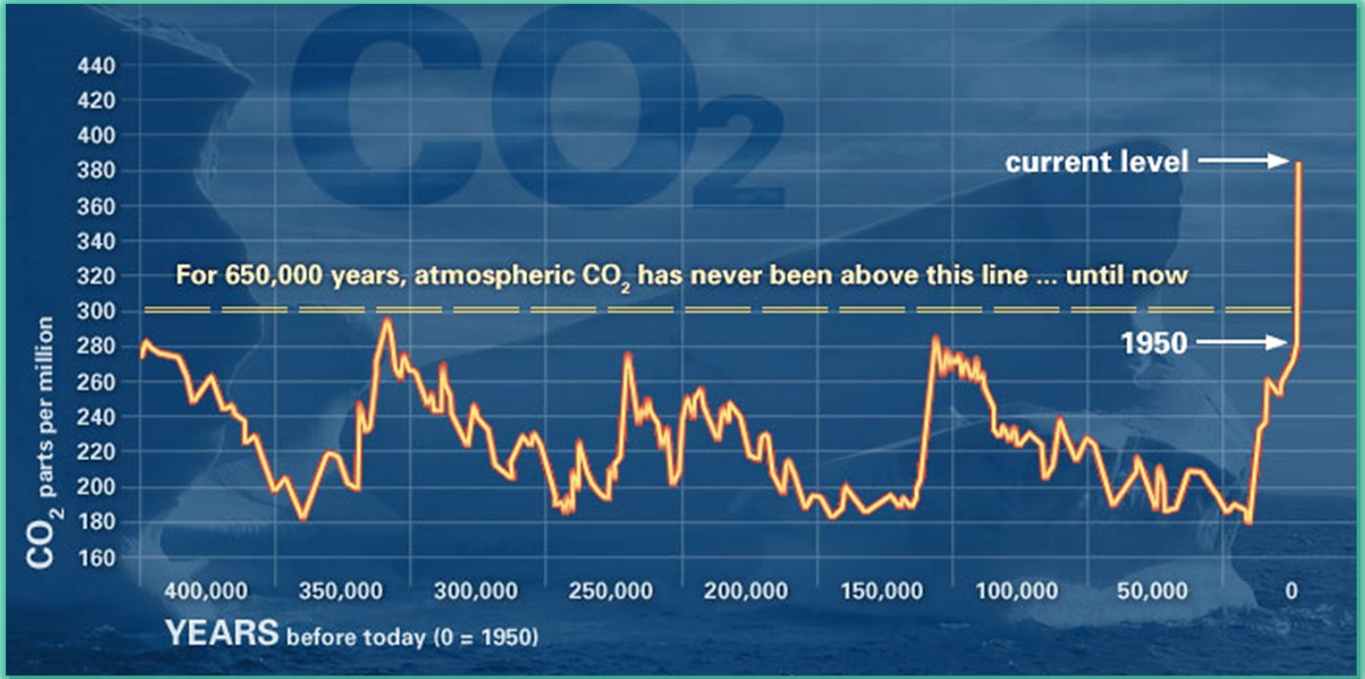
Organic based fertilisers can be produced in hundreds of different ways. The main two are composting without earthworms and composting with worms, the later being a more biologically rounded product. Other new exciting composting techniques also exist that can be used with earthworms, such as EM or Bokashi.

## Issues with waste accounting

- EACH STATE HAS A DIFFERENT ORGANIZATION IN CHARGE OF WASTE LEGISLATION.
- ONCE WASTE IS SENT TO A RECYCLING OPERATION IT IS COUNTED AS BEING RECYCLED, HOWEVER THE RECYCLING COMPANY MAY STILL SEND THAT WASTE TO LANDFILL.
- MINE REHABILITATION IS AN INCREASINGLY IMPORTANT METHOD OF DISPOSING OF ORGANIC WASTE.
- AGRICULTURE WASTE IS NOT WELL DOCUMENTED, EXCEPT AT END PROCESSING FACILITIES.

## Other possible uses of organic waste

- FARMERS HAVE BY FAR THE BIGGEST NEED FOR FERTILIZER.
- FARMERS MANAGE ALMOST 62% OF AUSTRALIA'S SURFACE.
- FARMERS ARE BEGINNING TO SEE A LARGE INCREASE IN DEMAND FOR AUSTRALIA'S PRODUCE.
- THE WORLD HAS A CONSTANTLY INCREASING NUMBER OF PEOPLE WITH A LACK OF FOOD SECURITY AND THIS IS SET TO INCREASE AT A GREATER RATE.
- FARMERS HAVE BUFFER DISTANCES TO ACCOMMODATE ORGANIC WASTE RECYCLING.
- ALLOWING FARMERS TO RECYCLE ORGANIC WASTE TO MAKE THEIR FERTILIZER WILL REDUCE OIL AND FERTILIZER DEPENDENCE AND PROVIDE LARGE ECONOMIC INCENTIVES TO FARMERS.



### Reducing your carbon emissions starts at home



Coal based power plants in Gippsland

Separate your waste recyclables and non-recyclables.

Recyclables include all paper (except that with oil or grease on it, such as pizza boxes), glass, all metals and all e-waste. A large portion of recyclables are sent overseas for recycling, so reusing materials where possible is always the most environmentally practice.

Recycle organic waste in your back yard. Write to your council asking for a food organics recovery trial, such as in South Australia and Goulbourn in NSW.

All waste in your general waste bin ends up in landfill, so diverting as much waste from this bin as possible is important.

If you don't separate your

waste no one else will. Once recyclables such as the plastics, glass bin and the green waste bin are received at the point of recovery, any contamination will result on one of two things:

Firstly, the material will be rejected and sent to landfill (increasing the cost of disposal due to the EPA landfill levy).

Secondly, the contaminated material will make it through, destroying the quality of the end product and hampering any true recycling efforts.

Write to your politicians and your local council to adapt a green waste pick-up. Make sure your council guarantees that all green waste is recycled for agricultural

purpose and not sent to landfill or used in mine rehabilitation, which has no benefit for other end users.

Find ways to increase your need for compost around the home by planting up areas in your back yard. Earthworms are the most effective method of reducing the volume of organics to be recovered. The large amount of biomass allows a highly refined concentrated organic carbon product to be made, and reduces the area required to produce an end product.

Grow plants such as flowers or herbs in recovered pot plant containers with your own end product. These can also make a nice gift with a green message.