

# Kerbside breakthrough

*An innovative "bio-insert" for mobile garbage bins allows green organic waste to begin the breakdown process on the kerbside. A trial of this cost-saving device is underway in Victoria.*



**W**ith green waste from households making up 35 per cent of the total domestic waste stream, an increasing number of councils are starting to focus on this part of the waste stream.

More and more are introducing kerbside green organics collection. In Victoria, for example, 52 per cent of councils had kerbside collections for bulk green organics in 2000. But these yearly or bi-yearly bulk collections miss out on the large proportion of lawn mowing clippings, prunings and the like generated by households on a daily or weekly basis.

An increasing number of councils around Australia are introducing mobile garbage bin (MGB) collections to maximise recovery. They are convenient and can be easily integrated into current waste collection services.

However, organics collected in MGBs contain too much moisture and not enough oxygen, causing the material to rapidly become anaerobic, which causes

**Cleanaway's new "Bio-Insert" into regular bins (green lid) promises to reduce the volume of organic waste without odour and "sticking".**

unpleasant odours, "sticking" and other technical problems at processing facilities.

"Bio-bins", which allow the proper conditions for green organic waste to break down on the kerbside, have been used in Europe and North America for a number of years with excellent results. The green waste is reduced in weight by 45 per cent, there is minimum leachate and odours and it creates a more marketable product. There is up to 65 per cent diversion from landfill when coupled with co-mingled recycling systems, such as fortnightly collection with food organics.

The one major disadvantage however, is cost. New bins must be manufactured to replace existing ones, making it a costly exercise for councils. In addition, any bin that is damaged during normal wear and tear must be replaced with a whole new bio-bin.

## MODIFIED BIO-BINS

After studying the cost effectiveness of bio-bin collection systems currently in use in Europe and North America, Cleanaway has come up with and recently patented a much more cost-effective solution.

The "Bio-Insert" was the brainchild of David Privitera who is the municipal liaison manager for Cleanaway Bayswater in Victoria.

"I knew that municipalities would not be willing to put up the huge capital to replace existing MGBs with bio-bins and recognised that they would not be reaping the financial benefits as quickly as they should be by doing so," he said.

"So I came up with a way to use their existing bins which would provide the same results as the bio-bins currently used successfully in Europe and North America, but at a significant cost savings to councils".

The Bio-Insert converts existing MGBs into bio-bins with a retrofitted insert and some minor adaptations (air ventilation screens) which can be done quickly and easily on the kerbside.

A recent in-depth study of the bio-insert conducted by the Institute for Horticultural Development found:

- adequate ventilation for aerobic decomposition and drying;
- significantly higher rates of weight loss were observed in winter, spring and summer compared to the standard bin, potentially meaning significant savings for kerbside collection services;
- the contents were less compacted, drier and more uniform than the contents of the standard bin, which should cause fewer problems for compost facility operators; and
- a collection frequency of four weeks is feasible for green organics, two weeks if food organics are also collected.

A trial of the bio-insert is currently underway in the City of Moonee Valley in Victoria.

*More information from Cleanaway (booth C218) or David Privitera on (03) 9729 1500. ■*