

## Finally a Disposable Nappy Composting Solution?

Yes! A HotRot in-vessel composting unit is being used in what is believed to be the first NZ commercial trial to compost disposable nappies, which normally go to landfill in their millions each day around the world.

Many parents worldwide have long been aware of the problems these nappies cause, however their convenience has often outweighed these concerns, and their use has grown steadily over the last 20 years.

Now, families in Rangiora, New Zealand, are jumping at the chance to make their personal difference to improve the environment for future generations of NZ babies, by being part of a commercial trial to compost disposable nappies in a safe, odour free process through a HotRot.

R5 Solutions (NZ) Ltd, the Australasian owners of the HotRot in-vessel composting technology, is working with The Nappy Store of Rangiora to make this happen.

R5 Solutions are providing a commercial-scale composter to The Nappy Store's Rangiora site, where it will be loaded daily with used nappies in compostable bags brought in by parents and care givers buying new nappies, or by a paid collection service which will also include local pre schools and rest homes. A bulking agent of chipped wood waste will be added, and 16-20 days later compost will be produced.

The compost may need some screening for residual wood and plastic tabs, but based on previous HotRot experience, will be odour and pathogen free, and once tested, could be available to the district to then apply to their own home gardens.

R5 Solutions GM, George Pottinger, and The Nappy Store's Rangiora owners, Karen and Karl Upston, are delighted with the joint opportunity. "We have worked with Natalie Crimp, the Christchurch school girl who attracted international attention and awards 3 years ago by showing that these nappies could be composted, and we have subsequently been looking for a suitable opportunity to prove this on a commercial scale." said Mr Pottinger. "Karen and Karl's nappy sales business, as well as their enthusiasm and desire to improve their offering from an environmental perspective provide an ideal opportunity. We are delighted to be working with them, along with families in Rangiora, to get a sustainable solution, which can be replicated in other communities throughout the world, all of whom who have similar nappy issues and environmental concerns."

## Chinese Diplomat Visits HotRot

The 1<sup>st</sup> Secretary for Science from the Chinese Embassy in Wellington, Mr Wu, visited the Selwyn district Council's HotRot plant near Rolleston recently.

Mr Wu's role encompasses identifying NZ technologies that can potentially have a beneficial use in China, and he was very impressed with what he saw.



"In China today, we are becoming more and more aware of ensuring that our rapid development and industrialisation is backed up by sustainable waste management policies. We also have large areas of land where high quality compost, such as I have seen today, could be beneficially spread to improve soil structure, and lessen soil erosion and water loss."

Local Chinese businessman, William McQiu, introduced Mr Wu to the HotRot technology, and its Australasian owners R5 Solutions (NZ) Ltd.

Photo shows Mr Wu and William McQiu having a close look at the internal workings of one of the HotRots at the Selwyn District Council's plant near Rolleston, NZ.

COMPOSTING SYSTEMS

# HotRot™

## Is anyone looking?

HotRot equipment is manufactured by a number of trusted suppliers. Are we sure our trust is well placed? And can our customers share this confidence?

Emphatically, yes. HotRot equipment is manufactured under a comprehensive quality system that is under continual review. We specify key aspects of manufacture and have mechanisms in place to ensure these are complied with.

Henry Ford said 'Quality means doing it right when no one is looking', but we believe it helps to keep an eye on things.

## HotRots at Selwyn District Council – one year on

Yes it's one year already since the HotRot plant at Selwyn's Resource Recovery Park, south of Christchurch, NZ was commissioned, so we thought we would give you an update.

At commissioning time, the feedstock was predominantly garden waste. But since June last year the District Council has been progressively introducing an optional garden and food organic waste wheelie bin collection in its larger townships. Now the proportion of garden waste from private trailers has fallen from 100% to 40% of the total organics.

The plant is now processing approximately 100 tonnes per month, just under 60% of its capacity. Quantities are increasing as additional subscribers sign up for the organic collection.

As the feedstock quantities increase, the plant is able to accept increasing quantities of problematic wastes (e.g. chicken waste) that by themselves would have required additional bulking agents (e.g. woody waste).

The plant is successfully processing dead chickens from two chicken farms and a third chicken farm has just been added.

Steady expansion of the organic waste collection and the increasing quantities of organic waste are allowing the plant operator to build their composting skills, and gain knowledge of quantities and composition. Once the existing two HotRot units are operating at full capacity additional HotRot units will be added on a needs basis.

## **Observations**

- All clients, and waste streams are different. Even waste from the same source varies in quantity and composition.
- Preventing contamination, especially stones, in the feedstock require constant vigilance.
- Composting is like baking a cake – you have to get the ingredients right. HotRot's front end feed with its two different access doors not only provides two loading options but also allows easy access for moisture content and C:N adjustments.
- Air injection, trialled on one of the two Selwyn HotRot units, has substantially enhanced the composting process. Air injection is now a standard recommendation on all HotRots.
- There is considerable interest in the plant, and it has received many visitors both from New Zealand and overseas.
- Selwyn District Council is one of three councils in New Zealand that are currently collecting and composting food waste, and was the first council of two to commence a garden and food waste collection using wheelie bins. Selwyn's HotRot composting plant is an essential component of its organic waste diversion strategy.

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