



Municipal compost being spread on a South Canterbury paddock.

Organic waste collection helps farmers

By **HOWARD KEENE**

THE introduction of city-wide organic waste collection in Christchurch is likely to have a positive spin off for farmers.

Trials undertaken by Crop & Food Research scientists have shown that compost produced from municipal organic waste, which includes food scraps, can produce excellent plant growth on a farm scale.

While the addition of organic wastes to the land has been a major part of agriculture through history, modern commercial growers have turned to chemical fertilisers. Compost has not been available in large quantities and has been too expensive to transport.

However, new municipal compost schemes and the rapidly escalating cost of chemical fertilisers may change that, especially for farms near urban areas.

Christchurch City produces about 34,000 tonnes of compost annually, mainly from garden waste delivered to metro refuse stations.

When the new curbside wheelie

bin system starts next year, with separate bins for organic waste, recycling and rubbish, the annual compost production should go up to 100,000 tonnes annually.

Much of that could end up fertilising nearby farms.

Craig Tregurtha of Crop & Food Research at Lincoln said the results from the first season's trials of spreading compost on a South Canterbury farm under dryland conditions had exceeded expectations.

Ryegrass had produced double the dry matter in the composted plots compared with plots which received no compost but had 200kg/ha of superphosphate applied.

A kale crop which was treated with compost reached twice the height of control plants which received no compost or fertiliser.

The compost for the trial came from the municipal composting system in Timaru where a curbside wheelie bin collection started in 2006.

The country's largest waste management company, Transpacific Industries (TPI), operates the Timaru composting facility, and will be operating the new Christchurch one at Bromley.

Mr Tregurtha said that when the new composting system came on stream in Christchurch it would produce huge volumes of compost.

"We need to find a massive outlet for that, that's why we're turning to agriculture."

He said that up to now insufficient compost had been available for agriculture.

"Our role with this research is to show the effect of compost on soil fertility."

He said transportation was a key cost, but the rapidly increasing cost of fertilisers should cause farmers to seriously consider compost.

While most compost was low in nutrients, municipal compost using food waste had a much higher nutrient content.

Principal adviser to the Christchurch City Council on sustainability Tony Moore said it had been estimated that the compost was worth \$60 a tonne in nutrient value

alone. As well as reducing fertiliser costs, its use would have positive environmental spinoffs, such as increasing soil water retention and biological activity, and reducing leachates polluting groundwater.

"We're certainly keen to prove and showcase those benefits. It closes the loop and returns organics to the land from where they came."

Mr Moore said that while municipal compost was used widely overseas, it had to be proved under New Zealand conditions.

TPI's southern regional manager Ray Harris said that a number of farmers had already begun using Timaru municipal compost and were reporting good results, especially on dryland farms.

TPI constantly monitored the condition of the compost to maintain temperature and moisture levels.

Samples were routinely taken to ensure that nutrient levels were maintained and contaminants did not exceed New Zealand standards.

The trials are likely to be expanded next year.

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Crop & Food Research scientist Craig Tregurtha in a compost-fertilised kale crop on a South Canterbury farm.