

# **ANOR magazine Australian Edition December 2004**

We welcome all ANOR members to the December edition of the ANOR newsletter compiled by Gerry Gillespie and Dr Sara Beavis and from Australia.

## **COMPOST AUSTRALIA – ROADMAP**

Compost Australia is part of the Waste Management Association of Australia. It has branches in all Australian states, and this year will be conducting a national program to investigate opportunities for reusing composted organic materials.

The following material is taken from their website. If you wish more information on the conference series to be held in 2005 the web site is:

<http://www.wmaa.asn.au/roadmap/conference.html>

## **The Roadmap**

The aim of the roadmap is to develop a viable and sustainable organics recycling industry across Australia. This will involve new product and market identification and development of strategic plans that target both niche and wide-ranging markets for recycled organics.

The focus will be on the identification of product specifications that will allow the marketing and use of fit for purpose recycled organic products in agriculture, horticulture, landscaping and other value adding purposes.

This roadmap project is an initiative of the Waste Management Association of Australia (WMAA), Compost Australia and the Barton Group. It is funded in part by the Federal Government through AusIndustry, and various State Government Agencies including the Department of Environment and Conservation (NSW), Queensland Environmental Protection Agency, EcoRecycle Victoria, Zero Waste SA, ACT NoWaste and the WA Waste Management Board.

## **Roadmapping Program**

The first stage of the program will be the development and preparation of a discussion paper to clarify the issues of supply, demand and the environment. This will be done by integrated background research of the recycled organics industry together with input from key stakeholders within the Australian recycled organics supply chain.

## **Conference Series**

The second stage will consist of five two-day conferences/workshops which will be conducted in the major capital cities during late February and early March 2005. Three overseas experts have been engaged to present relevant US and European case studies as well as bring the delegates up to date on the latest technology, issues and lessons from overseas. The conference and workshop series will be facilitated by Resource Consulting Services (RCS) Pty Ltd in conjunction with the United Nations Environment Program (UNEP) Working Group for Cleaner Production. This partnership will bring the experience of national agribusiness training and consulting, environmental research, supply chain mapping and roadmap preparation to the project. At the conclusion of day one of the conferences a networking dinner will be offered to delegates to encourage stakeholder networking and interaction with overseas experts.

Following the Conference/Workshop Series and Industry Business Plan will be prepared for

presentation to all stakeholders.

For more information on the Conference Series please [click here](#).

### **Future Directions Seminars**

In June/July 2005 a series of short seminars in each capital city and up to ten regional areas to present the Business Plan to all stakeholders in the Product Chain. The Business Plan will be developed by Resource Consulting Services Pty Ltd from the information presented and discussed during the Conference Series,

### **For Further Information Contact**

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## **CITY TO SOIL**

This project was presented at the recent conferences in Japan and China. Numerous requests were received for more information. If you require more detail and report copies please contact Gerry Gillespie.

This project sought to demonstrate that falling levels of organic materials in agricultural soils could be addressed in part by engaging the rural and urban communities together in a trial, which sought to increase soil health by returning quality composted product to agriculture.

Increased soil health brings benefits to the farmer by increasing yield and income and to the broader community by ensuring agricultural sustainability for future generations.

The project aimed to minimize alterations to existing systems in collection, processing and on-farm application. Using very simple bar-code technology and rear loading vehicles, a householder credit system was devised, which reduced contamination by 40%.

This in turn, lead to cleaner, compost product with more direct application for the farmer, with no concern for contamination.

### **Innovative aspects**

This project is unique, in that using simple existing equipment in collection, processing and product delivery, it resulted in a process that rewards all participants in the system.

The “City to Soil” project was designed as a model, which could be modified and remodelled to suit any regional, rural or urban centre.

The project used a low-tech approach to collection, processing and delivery. It uses standard hand-held scanners to record the bin bar code of any household, which has placed a bin, free of contamination on to the kerbside

The main innovative aspect of this project is that identifies all the financial benefits of applying quality organic material to agriculture and then returns part of that value to the household for source separation of the product in the first place.

### **Cost/Benefit**

The cost of landfill in the region where the trial was conducted, near Canberra, Australia's National capital, is generally recognized as around \$65 per tonne. The cost of disposal of waste to landfill for Sydney varies from around \$100 per tonne up to \$150 per tonne.

Yet it is possible for a commercial processor to manufacture quality compost to Australian Standard AS4454 and carry the product at least 200 klms in any direction for a cost of \$50 per tonne.

This means that the product can be delivered to the farm gate for less cost to the community than disposal to landfill.

As this trial demonstrated however, when the farmer applied the product in his vineyard, his productivity in the trial area increased dramatically.

In the cool climate wine area where this compost was applied the sale value of the grapes on this vineyard was approximately \$1300 per tonne. In the trial area the application of compost at a rate of 10 centimetres depth gave an increase in yield of 182% - a value of more than \$17,000 per hectare.

Given that these wine grapes were young, it is still expected that long term the grapes would still have produced an increased yield of at least 40% for 10 cm of compost.

This would mean that if the farmer paid a rate of \$30 per tonne for the compost, the application cost would have been around \$900 but it would have returned a profit of \$3900 or a net profit of \$3000 per tonne.

The sale value of the compost can be returned to the community as community rewards and prizes to encourage clean, source separation of household product.

This project uses the same funds, which were previously used to landfill organic products to return them to useful function within agriculture. At the same time it generates profit and reward for all who participate.

This project is about the triple bottom line of social economy.

## Replication Potential

Farming is a mineral extractive industry. It takes between 60 to 90 elements, minerals and nutrients to grow a plant. Yet where chemical farming is practiced many farmers now only return three chemical nutrients to the soil. All soils will progressively suffer from this slow degeneration process.

The extraction process can also affect the organic levels of soils, reducing the materials on which soil biology lives and thus slowly killing the soil.

This project is not about putting companies out of business. It is about having people in the waste and fertilizer industries transport and sell a different range of products.

As a national community we must resolve to change to more sustainable methods of agriculture and as we do we must demonstrate that farming can be sustainable and that it can involve the entire community.

The “City to Soil” model will fit into any community. It will broaden the market to include not only the fertilizer companies, but also the farmer and the general community, engaging them all in sustainable food production.

## City to Soil Benefits

Environmental	Cost/Benefit	Farm	Social
<ul style="list-style-type: none"> <li>• Reduced waste to landfill</li> <li>• Reduced run-off and contamination from landfill</li> <li>• Reduced methane from landfill</li> <li>• Reduced weed dumping in public spaces</li> <li>• Environmental collection benefits of kerbside, rather than household to landfill</li> </ul>	<ul style="list-style-type: none"> <li>• Compost can be made and transported to the farm for less cost than disposal to landfill</li> <li>• On farm benefits provide \$ input value for community rewards</li> <li>• Cost savings on fertilizer</li> <li>• Better return on investment for community waste handling dollar</li> </ul>	<ul style="list-style-type: none"> <li>• Increased yield</li> <li>• Reduced water use</li> <li>• More efficient water use</li> <li>• Improved soil structure</li> <li>• Increased microbial activity</li> <li>• Reduced fertilizer costs</li> <li>• Reduced erosion</li> <li>• Carbon sequestration</li> </ul>	<ul style="list-style-type: none"> <li>• Urban-rural soil and food relationships</li> <li>• Community Education</li> <li>• Community buy-in</li> <li>• More jobs in every rural and urban community</li> <li>• More on-farm employment distributing product</li> <li>• Increased business activity in recycling</li> <li>• Ties directly into Sustainable Schools program</li> </ul>

## **ZERO WASTE AUSTRALIA & HEALTHY SOILS**

Zero Waste Australia has recently established a new group called Healthy Soils Australia.

The group will work with local farmers to establish work groups to identify potential composted organic markets in agriculture.

The group hopes to assist farmers in recognising the problems they face with their soils and to develop solutions which are specific to not only the particular farm but also the soils type, crop and climatic conditions.

Healthy Soils Australia recognises that the best person to identify problems on the farm is the farmer. If the farmer is allowed to work in this way they will also 'own' the solution.

It is remarkable that despite that fact that the objectives of the Healthy Soils group have been discussed for many, many years, they are still not part of the practical solutions which farmers apply to their land.

## **COMPOST LIBRARY**

The Recycled Organics Unit (ROU) at the University of NSW has an excellent library site for anyone interested in current or past compost research programs in Australia.

The site is at : <http://www.rolibrary.com/search.php>

Another of their sites carries details on compost training programs:

<http://www.recycledorganics.com/training/index.htm>

## **THE NEW YEAR**

A happy and positive New Year to all ANOR members and their families.  
We hope that 2005 brings you all that you desire.