

**COMPOST AUSTRALIA - NSW ORGANICS INDUSTRY SURVEY RESULTS  
2003/04 Financial Year**

**SECTION A - Organisation details**

**1 Location of facilities**

Facilities located in Sydney Metropolitan Area (SMA)	20
Facilities located in Extended Regulated Area (ERA)	9
Facilities located in remainder of New South Wales	15
<b>Total</b>	<b>44</b>

**2 Facility type**

On-farm operation	1
Council facility	1
Licensed commercial facility	33
Unlicensed commercial facility	4
Other <sup>1</sup>	5

**SECTION B: Raw materials received/processed**

**3 Total quantity of raw materials processed** **1,199,768 t**

**4 Types of raw materials processed**

Garden organics	432,393 t
Wood/timber packaging	41,000 t
Wood/timber other	3,000 t
Sawdust	63,030 t
Barks	116,551 t
Food organics	68,230 t
Biosolids/grit/screenings	86,000 t
Oils, grease trap, sludges	6,000 t
Straw	-
Manure	356,231 t
Animal bedding	-
Animal mortalities	900 t
Paunch	500 t
Other - Miscellaneous agricultural organics	3,100 t
Other - Paper pulp/sludge	7,700 t
Other - MSW (organic fraction)	12,000 t
Other - Biowaste	133 t
Other - Miscellaneous	3,000 t

**SECTION C: Recycled organics product types and quantities sold**
**5 Total quantity of product sold, recycled organics content <sup>2</sup>, market breakdown**

<i>Composted soil conditioner</i>		
<b>Quantity product sold</b> <sup>3</sup>	<b>300,037</b>	<b>m<sup>3</sup></b>
Recycled organic content	100	%
Intensive agriculture	20,416	m <sup>3</sup>
Extensive agriculture	5,020	m <sup>3</sup>
Urban amenity	252,962	m <sup>3</sup>
Rehabilitation	2,648	m <sup>3</sup>
Enviro-remediation	2,507	m <sup>3</sup>
<i>Pasteurised soil conditioner</i>		
<b>Quantity product sold</b>	<b>15,600</b>	<b>m<sup>3</sup></b>
Recycled organic content	100	%
Intensive agriculture	600	m <sup>3</sup>
Extensive agriculture	-	
Urban amenity	15,000	m <sup>3</sup>
Rehabilitation	-	
Enviro-remediation	-	
<i>Composted mulch</i>		
<b>Quantity product sold</b>	<b>25,270</b>	<b>m<sup>3</sup></b>
Recycled organic content	100	%
Intensive agriculture	120	m <sup>3</sup>
Extensive agriculture	-	
Urban amenity	19,465	m <sup>3</sup>
Rehabilitation	536	m <sup>3</sup>
Enviro-remediation	149	m <sup>3</sup>
<i>Pasteurised mulch</i>		
<b>Quantity product sold</b>	<b>7,131</b>	<b>m<sup>3</sup></b>
Recycled organic content	100	%
Intensive agriculture	-	
Extensive agriculture	-	
Urban amenity	4,279	m <sup>3</sup>
Rehabilitation	2,852	m <sup>3</sup>
Enviro-remediation	-	
<i>Raw mulch</i>		
<b>Quantity product sold</b>	<b>91,248</b>	<b>m<sup>3</sup></b>
Recycled organic content	100	%
Intensive agriculture	-	
Extensive agriculture	-	
Urban amenity	37,250	m <sup>3</sup>
Rehabilitation	1,575	m <sup>3</sup>
Enviro-remediation	4,423	m <sup>3</sup>
<i>Manufactured soil</i>		
<b>Quantity product sold</b>	<b>291,618</b>	<b>m<sup>3</sup></b>
Total RO content in product	169,031	m <sup>3</sup>
Recycled organic content	40 - 85	%
Intensive agriculture	1,625	m <sup>3</sup>
Urban amenity	274,687	m <sup>3</sup>
Rehabilitation	6,918	m <sup>3</sup>
Enviro-remediation	3,389	m <sup>3</sup>
<i>Potting mixes</i>		
<b>Quantity product sold</b>	<b>50,000</b>	<b>m<sup>3</sup></b>
Total RO content in product	39,425	m <sup>3</sup>
Recycled organic content	75 - 100	%
Intensive agriculture	7,545	m <sup>3</sup>
Urban amenity	42,455	m <sup>3</sup>

**SECTION C: Recycled organics product types and quantities sold (continued)**

<i>Playground surfacing</i>		<b>Quantity product sold</b>	<b>17,500 m<sup>3</sup></b>
	Recycled organic content		100 %
	Urban amenity		17,500 m <sup>3</sup>
<i>Biofuels/biogas (methane)</i>		<b>Quantity product sold</b>	-
<i>Biofuels/solid fuel</i>		<b>Quantity product sold</b>	<b>36,800 m<sup>3</sup></b>
<i>Other - Composted products</i>		<b>Quantity product sold</b>	<b>15,000 m<sup>3</sup></b>
	Recycled organic content		100 %
	Intensive agriculture		1,500 m <sup>3</sup>
	Extensive agriculture		- m <sup>3</sup>
	Urban amenity		13,500 m <sup>3</sup>
	Rehabilitation		- m <sup>3</sup>
	Enviro-remediation		- m <sup>3</sup>
<i>Other - Organic fertiliser</i>		<b>Quantity product sold</b>	<b>28,939 t</b>
	Recycled organic content		100 %
	Intensive agriculture		9,654 t
	Extensive agriculture		8,265 t
	Urban amenity		11,020 t
	Rehabilitation		-
	Enviro-remediation		-
<i>Other - Composted manure</i>		<b>Quantity product sold</b>	<b>230,000 m<sup>3</sup></b>
	Recycled organic content		100 %
	Intensive agriculture		184,000 m <sup>3</sup>
	Extensive agriculture		46,000 m <sup>3</sup>
	Urban amenity		-
	Rehabilitation		-
	Enviro-remediation		-
<i>Other - Raw manure</i>		<b>Quantity product sold</b>	<b>39,000 m<sup>3</sup></b>
	Recycled organic content		100 %
	Intensive agriculture		30,550 m <sup>3</sup>
	Extensive agriculture		8,450 m <sup>3</sup>
	Urban amenity		-
	Rehabilitation		-
	Enviro-remediation		-
<i>Other - Direct land application</i>		<b>Quantity product sold</b>	<b>54,000 m<sup>3</sup></b>
	Recycled organic content		100 %
	Food organics		30,000 m <sup>3</sup>
	Biosolids		24,000 m <sup>3</sup>
	Other		-
<i>Other - Aqueous compost extracts</i>		<b>Quantity product sold</b>	<b>200,000 L</b>
	Intensive agriculture		120,000 L
	Extensive agriculture		40,000 L
	Urban amenity		40,000 L
	Rehabilitation		-
	Enviro-remediation		-

<b>SECTION D: Inventory on site</b>	
<b>6 Raw materials onsite 30-06-03</b> <sup>4</sup>	n/a
<b>Raw materials onsite 30-06-04</b> <sup>5</sup>	
Garden organics	93,250 m <sup>3</sup>
Wood/timber packaging	1,550 m <sup>3</sup>
Wood/timber other	-
Sawdusts	5,400 m <sup>3</sup>
Barks	3,000 m <sup>3</sup>
Food organics	-
Biosolids/grit/screenings	-
Oils, grease trap, sludges	-
Agricultural residuals	91,615 m <sup>3</sup>
Other - Oversize screenings	2,000 m <sup>3</sup>
Other - Paper sludge	400 m <sup>3</sup>
Other - Miscellaneous agricultural organics	90 m <sup>3</sup>
<b>Finished products onsite 30-06-04</b> <sup>5</sup>	
Garden organics, food, wood/timber, biosolids	11,530 m <sup>3</sup>
Agricultural, forestry residuals	3,170 m <sup>3</sup>
<b>Total all materials/products onsite 30-06-04</b> <sup>5</sup>	<b>280,372 m<sup>3</sup></b>
<b>SECTION E: Industry issues and priorities</b>	
<b>7 Industry scale, issues, priorities</b>	
<i>Value represents an industry priority rank: high priority 10; low priority 1.</i>	
Development of new products/markets (particularly agriculture)	10
Product quality and standards	9
Licensing and regulation	9
Industry structural economics and government incentives	8
Compost performance data	8
Gate fees / tendering for raw materials	7
Research and development	7
Product price / market affordability	7
Raw materials contamination	6
Industry organisation and communication	5
Technical support and training	4
Saturation of particular markets	3
Research and development ignoring customer affordability	2
Other - Government purchasing	2
Other - Rehabilitation standard	1
Other - Landscaping industry regulation	1
Other - Industry branding ('waste')	1
Other - Transferring research into practice	1
Other - Access to markets	1
Other - Machinery costs	1
Other - Government interference with direct operations	1
Other - Complaints from neighbours	1
Other - Government transport subsidy to agricultural regions	1
Other - Competition from raw mulches	1

**SECTION E: Product quality standards**

**8 Production to quality standards <sup>5</sup>**

Number of facilities producing to quality standards	10
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**8.1 Standards**

AS 4454 - Composts, soil conditioners, mulches	7
AS 3743 - Potting mixes	3
AS 4419 - Landscaping soils	4
Organic product standard - Biological Farmers Association	2
Other - Biosolids guideline	2
Other - Soil Foodweb Institute	1
Other - NASAA	1

**8.2 Number of facilities realising commercial value/relevance**

Improved process control	4
Improved staff management	2
Consistent product	9
Increased sale price	1
Access to particular markets	6
Other - Company image, marketing	1
Other - Increased costs	1

**8.3 Increased market price achieved due to standard**

AS 4454 - Composts, soil conditioners, mulches	Yes	1
	No	6
	<i>Increase</i>	20 %
AS 3743 - Potting mixes	Yes	1
	No	2
	<i>Increase</i>	15 %
AS 4419 - Landscaping soils	Yes	1
	No	3
	<i>Increase</i>	10 %
Organic product standard	Yes	0
	No	2
	<i>Increase</i>	0 %
Other - Biosolids guideline	Yes	1
	No	1
	<i>Increase</i>	20 %

**SECTION E: Industry economic value**

**9 Entire industry value 30-06-04 <sup>6</sup>**

Total staff	633
Total value of operations	\$ 74,385,000
Total capital investment	\$ 23,915,000

**SECTION F: Rate of response****10 Facilities surveyed**

Number of facilities surveyed	44
Number of facilities that responded	40
<b>Response rate</b>	<b>91 %</b>

**11 Facilities providing survey response**

AJ Bush and Sons Manufacturing  
Arthur Yates & Co  
Australian Meat Holdings  
Australian Native Landscapes  
Back to Earth Mulch Makers  
Benedict Recycling  
Beresford Park Nursery Supplies  
Bettergrow Pty Ltd  
Bio-Recycle Australia Pty Ltd  
Brandown Pty Ltd  
Camden Soil Mix  
Cobowra Environmental Services Ltd  
Collex Pty Ltd  
Earthpower Technologies Sydney Pty Ltd  
Fletcher International Exports Pty Ltd  
Global Renewables  
Growmix  
Hallinan's Pty Ltd  
L.V. Rawlinson & Associates Pty Ltd  
M. Collins & Sons (Contractors) Pty Ltd  
Port Stephens Gardenland  
Port Stephens Waste Management Group Pty Ltd  
QAF meat Industries Pty Ltd  
RDM Environmental  
Remondis (formerly Rethmann)  
Riverina Compost Mulching  
Rockdale Beef Limited (Rivcow)  
Soilco  
Soilwise Pty Ltd  
Tryton Waste Services  
The University of New South Wales  
Vermitech Ltd  
Waste Service NSW  
Wimbledon Worms Pty Ltd

**Facilities not providing survey response**

Clean and Green Recycling Pty Ltd (Volk Holdings)  
Compost Solutions  
Debco Pty Ltd  
Regional Vermiculture Australia Pty Ltd

*Footnotes*

- 1 Other types of facilities include: renderer of offal; direct land application; vermiculture facility of unknown license status; licensed on-site facility.
- 2 Recycled organics refers to a range of products manufactured from a variety of compostable organic materials including: garden organics; food organics; residual wood and timber; biosolids; agricultural organics; and other organic materials.
- 3 Note total may not equate to the sum of individual market segments as a small number of processors were not prepared to provide market breakdown.
- 4 Very low response rate to this question, insufficient responses to justify aggregating data.
- 5 Note a poor response rate was received on these questions, and where figures were provided respondents noted that these were largely guesswork. Data provided is not considered to be accurate.
- 6 Note a poor response rate was received on this question. Data provided is not considered to be accurate.

# Compost Australia – NSW Organics Industry Survey

## 2003/04 Financial Year

### SECTION E – Industry scale, issues and priorities

*What are the key issues and priorities that need to be addressed for industry advancement?*

Collated “OTHER” responses:

- Local Government not walking the talk as a purchaser of recycled organic products.
- Inadequate rehabilitation of mine sites. Sites look OK from the air but will not last as soil cannot support continued growth. This is being accepted as “rehabilitation of site”.
- Integration of customer capacity to pay and logistics is essential in R&D.
- Not wanting/realising change in farm management systems to bio-based.
- Gate fee too low to support effective market development.
- Contamination of feedstock and no agreed method with council for quantifying contamination level in green waste and biowaste raw material collection.
- No alignment between EPA policy and incentives for regulation/implementation.
- Willingness of waste producers to segregate at source.
- Willingness of collection contractors to support segregation at source.
- Stupidity of Government approving Collex landfill facility.
- NSW Agriculture regulations for animal feed not enforced.
- Soil injection permitted.
- Lack of cooperation from council on rent charges. No charges/gate fees to other operator.
- Phylloxera regulation and protocols are a barrier for selling products into (non vineyard) intensive agriculture – whether composted mulch or raw mulch.
- Councils need to specify “certified products” and need to walk the talk in implementing purchasing policies. Specifications need to be clear and unambiguous.
- DPI’s inability to transfer research into practice.
- Organics still classified and seen by many as the “waste” industry – this is a problem.
- More emphasis to be put on Government to subsidise transport to agricultural areas for organics reuse.

- Raw shredded materials being sold or given away by councils or tree loppers as mulch or “compost”.
- Increasing quality requirements from customers and regulators – but price is being undermined by oversupply.
- Contamination of municipal waste and costs of decontamination.
- Development of my business is in my hands – I’m more concerned about whole of industry stuff.
- Clear quality benchmarks – quality can be distinguished from cowboys.
- Machinery costs – middle scale, what’s available?
- Government has to get out of direct operations.
- Need to treat resource recovery from waste as an important infrastructure issues.
- Basic competition is still against landfills which can externalise their costs, while composters have to internalise their costs.
- Landfills and manure spreaders need to be put on a level playing field in terms of licensing and regulation.
- Development of new products/markets is best left to industry but with market development grants as in WA.
- Research and development needs a coordinated approach across Australia targeted at value-adding.
- Compost performance data needs to be part of R&D program.
- Product quality and standards – need development of commercial grades as sub-categories of AS 4454 or AS 4419.
- The value of composting needs to be realised as well as the value of compost. That is, processors need to be able to get paid for the environmental service they deliver in processing residual organics without landfill externalities. MBI’s needed.
- Recycled organics needs a cap and trade environment before adequate markets for recycled organics can be afforded.
- Quantitative research data to demonstrate benefits (environmental and cost/benefit).
- Product specifications including application rates and loading rates.
- No regulatory guidelines for soil injection. Changes to POEO Act in 2000 put responsibility on to companies to determine whether land application is appropriate (and legal) via: due diligence for

companies on principle; compliance with principle “thou shall not pollute the environment”. Prefer a regulation that specifies what is permitted to stop “cowboys”.

- Neighbours complaints.
- EPA not supportive – for example paper pulp was not allowed as a raw material for vermiculture processing.
- No help/support from councils.
- Changing access to market, consolidation of landscape industry, wiping out landscape yards as route to market.
- Non-horticulturalists doing landscaping/planting and cutting costs on landscaping jobs, buying low quality (“rubbish”) product. No soil preparation, just using on-site soils.
- DEC RTA trials not delivering outcomes and forgetting that market is dollar driven. Current focus on urban markets and products that are unaffordable is all wrong.
- No point focusing on gate fee – Waste Service profits.
- Rebate to growers for agriculture – not enough money in the system to grow agriculture markets.
- Price of fuel.
- Need demand pull incentive to compensate growers for transition costs and the risk of changing over to new management systems – grower rebate and support.
- Gate fees too low, but what can be done.
- Contamination is a function of imperfect collection systems. This can be addressed only by increasing the price for product and increasing money in business equation.
- Need a level playing field for regulation of raw manure and raw food waste, and regulation of council composting facilities.
- Development of new products and markets, particularly orchard and viticulture.
- R&D for key intensive agriculture and Government markets.
- Product standards need differentiation between certified and non-certified.
- Technical support and training for key new markets – intensive agriculture and Government. Needs to be based on performance based standards.
- Need to differentiate between certified and non-certified products in market and have a dollar value difference.
- Industry needs to follow through on decisions made.