

Organics Recycling in Australia

Industry Statistics 2009

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Section 1 About this report

1.1 Objectives

The national industry survey was initiated in 2003 by the Recycled Organics Unit to contribute to the process of industry formation and development. The objectives of the national industry survey are:

- To establish and maintain contact details for organics reprocessing enterprises across Australia.
- To collect quality data in consistent format from each jurisdiction that provides a tool for reporting; and for identifications of trends, opportunities and risks for both industry and Government.
- To quantify the nature and scale of the industry on a nationally aggregated basis to support industry engagement with the Australian Government.
- To identify and track industry issues and priorities to inform industry development programs.
- To avoid over-surveying of the industry by conducting and publishing a single national survey each year that meets the needs of both industry and government.

1.2 How to cite the report

This publication should be cited in the following manner:

Recycled Organics Unit (2009). Organics Recycling in Australia: Industry Statistics 2009. Report prepared for Compost Australia by the Recycled Organics Unit. Internet publication www.compostaustralia.com.au

1.3 Acknowledgement

The Recycled Organics Unit (ROU) thanks the following agencies for providing contributory funding for implementation of this project:

- Western Australian Department of Environment and Conservation
- NSW Department of Environment, Climate Change and Water
- Department of Environment and Resource Management Queensland
- Zero Waste South Australia
- Sustainability Victoria

The national response rate for the 2009 industry survey as directly conducted by the ROU is 99%. The ROU thanks the organics recycling industry for once again supporting the implementation of the national survey.

Section 2 Significant developments

2.1 New South Wales

2.1.1 NSW number and type of facilities

The total number of organics recycling facilities involved in the survey increased from 42 facilities in 2008 to 59 facilities in 2009. This includes 15 additional regional (on-farm) facilities. Aerobic windrow composting (hot composting) remains the overwhelmingly dominant method for reprocessing all manner of materials, including garden vegetation and highly putrescible materials such as grease trap and organic sludges; food organics (elsewhere food waste); manures and other agricultural residuals.

Note that local government operated facilities are excluded from this survey. DECCW conducts an annual survey of local government, including the organics processing data for annual reporting.

2.1.2 NSW quantities of organic material received and processed

The total reported quantity of compostable organic materials reprocessed into beneficial recycled organics products has decreased by around 3.1% (or 51,536 tonnes), with a total of 1,594,042 tonnes of raw materials processed in 2009 compared to 1,645,578 tonnes of raw materials processed in 2008.

Irrespective of water restrictions and the general economic downturn, the quantity of garden organics and food waste diverted from landfill have again increased. The reduction in total reported tonnages are overwhelmingly due to reduction in feedlot manures being processed as a result of reduced business activity in this sector associated with the general national and international economic downturn.

Notable developments:

- Reported quantities of **garden organics** diversion from the waste stream for reprocessing into beneficial recycled organics products have continued to increase, **increasing** by 59,769 tonnes to a total of 613,641 tonnes over the 2009 financial year, and increase of ~ 10.7%.
- Reported quantities of **food organics** (food waste) for reprocessing into beneficial recycled organics products have notionally decreased by 3,500 tonnes to a total of 102,500 tonnes over the 2009 financial year. Note however, that actual quantity of food organics diverted and processed has increased as an additional ~ 8,000 tonnes of **biowaste** was collected and processed (combined garden vegetation and food organics collection); and the organic fraction of MSW processed in regional north coast of NSW has also increased as additional processing infrastructure has been commissioned.
- Note that reported quantities of **MSW** (organics fraction only) diversion from the waste stream for reprocessing into beneficial recycled organics products has **not** included processing at either of the new AWT plants currently being commissioned in the Sydney basin in 2009.

- There has been a **significant reduction** in reported quantities of **manures** being processed, which have reduced by 92,000 tonnes over 2009, to a total of 224,831 tonnes. This is reportedly due to reduced levels of business activity in the feedlot industry due to general downturn in the global economy. In terms of agricultural residuals, this is offset to some degree by an increase of 35,000 tonnes of cotton trash processed in the miscellaneous agricultural organics category.
- Reported quantities of wood/timber/sawdust (from commercial/industrial sources) diversion from the waste stream for reprocessing into beneficial recycled organics products have **increased** by 5% (~ 3,500 tonnes) to a total of 74,622 tonnes over the 2009 financial year. Balancing this increase is a **decrease** of 4% (~ 4,000 tonnes) to a total of 102,188 tonnes of reported quantities for sawdust (from forestry residuals) over 2009.
- Reported quantities of biosolids/grit/screenings diversion from the waste stream for reprocessing into beneficial recycled organics products have **decreased** by 31% (~ 62,500 tonnes) to a total of 134,100 tonnes over the 2009 financial year, due to significant decreases in northern NSW.

2.1.3 NSW quantities and type of recycled organic product sold

Notable developments:

- **Increased** sales of composted soil conditioner from ~ 484,000 m³ to 543,000 m³ are reported, and an **increase** in sales of pasteurised soil conditioner from ~ 56,000 m³ to 175,000 m³, reflecting a net gain of ~ 177,000 m³ for soil conditioners over 2009.
- **Decreased** sales of composted mulch from ~ 55,000 m³ to 43,000 m³ and **decreased** sales of pasteurised mulch from ~ 98,000 m³ to ~ 3,000 m³ are reported, but a **increase** in sales of raw mulch from ~ 62,000 m³ to ~ 73,000 m³, reflect a net loss of ~ 95,000 m³ over 2009.
- Reported sales of manufactured soils **increased** from 315,157 m³ to a total 386,431 m³ over 2009. This increase brings the sales of manufactured soils up to the quantities sold in 2007.
- Reported sales of composted manure **increased** from 264,500 m³ to 330,000 m³ over the 2009 financial year and raw manures **decreased** from ~ 124,000 m³ to a ~ 37,000 m³ reflecting a net loss of ~ 21,500 m³.
- The reported quantity of methane generated for electricity production **increased** from 15.3 million to 16.6 million kWh over 2009. This increase reflects improved processing efficiencies in existing infrastructure rather than increased quantity of materials processed or additional infrastructure.
- Reported quantities of organic materials going to direct land application **decreased** from ~ 148,000 m³ to a total ~ 99,000 m³ over the 2009 financial year. This decrease is a consequence of the reported decreases in quantities of biosolids used for direct land application in Northern NSW.
- Sales into new markets in production horticulture and agriculture remain at insignificant levels. However, sales into extensive agriculture have increased at a faster rate than other markets in almost all products. There has been a significant contraction for sales into the rehabilitation market for all products except manufactured soils. Economic conditions has been cited as the cause for this contraction, when the economy

is strong private and government spending on rehabilitation projects is also strong, but with economic downturn and uncertainty there is a strong tendency for expenditure on rehabilitation to be reduced and postponed.

2.1.4 NSW inventories

Total inventories represent the combined quantity of raw materials, materials being processed, and stockpiles of finished product on-site at the end of the financial year. There is little value in attempting to distinguish between these categories as materials in process will be held back or pushed through to final product to meet sales orders. There has been a strong drive since the 2006 survey to clarify the question asked in relation to inventories via reduced complexity of subcategories, and to press the industry for a more accurate response. The current year survey continues this emphasis and the total inventories in New South Wales have remained stable.

- Reported inventories have **stabilised** with 655,435 m³ reported in 2008 and 658,938 m³ reported in 2009. Inventories appear to have increased by ~ 3,500 m³ over 2009, a figure that is less than the margin for error.
- This figure still clearly under reports total inventories as known stockpiles remain unreported.

2.1.5 NSW industry issues and priorities

The key issues expressed by the industry are listed below in order of priority, with comparison to expressed priorities from the previous two survey years.

Table. Expressed recycled organics industry priorities in NSW.

Rank	Prioritised issues 2009	Prioritised issues 2008	Prioritised issues 2007
1.	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)
2.	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Raw materials contamination	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy
3.	Development of new products/markets (particularly agriculture)	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Development of new products/markets (particularly agriculture)
4.	Inadequate / not enforced regulation of competing products	Development of new products/markets (particularly agriculture)	Research and development / inadequate compost performance data
5.	Raw materials contamination	Inadequate / not enforced regulation of competing products	Inadequate / not enforced regulation of competing products
6.	Research and development / inadequate compost performance data	Research and development / inadequate compost performance data	Raw materials contamination
7.	Product quality standards need revision	Product quality standards need revision	Compost product marketing and sales support

A number of processors identified that they were now competing with “MSW composts”, which have an increasing presence in markets. Both manufacturers of source separate compost, and manufacturers of MSW

composts raised issues of concern, variously in terms of confusion between biosolids products and MSW composts, lack of recognition/differentiation of products derived from different materials and consequential market confusion, of unclear regulatory requirements, of the validity of products entering markets without regulatory mandate, and of unenforced regulations. The absence of regulatory certainty over the status and permissible application of “MSW composts” is cause for expressed concern across the industry.

Consistent with the 2008 report, issues that place downward pressure on prices and that increase production costs are grouped together as these issues are central to the commercial profitability, indeed viability of the industry. The issues are still reported separately, but when aggregated, five clear priority issues are consistently reported: 1. commercial viability issues that arise from structural government integrated market issues; 2. regulatory imposts and inconsistencies in relation to competing products; 3. issues that constrain or obstruct the establishment of new markets; 4. inadequate/not enforced regulation of competing products; and 5. raw materials contamination.

“Level playing field” issues reported in 2006-2008 remain, whereby competing products are not subject to equivalent regulatory requirements, and/or where such regulations as exist are not policed; and whereby non-commercial organics processing operations are reported to be distorting resource recovery markets. These issues relate to government intervention to establish a coherent and viable framework for the resource recovery sector, and the incentives to drive commercially viable resource recovery.

Contamination of raw materials continues to be raised as a priority for processors, which is to be expected as no industry wide mechanism has been established to enable processors to implement management control over quality of raw materials received at gate.

The development of new products/markets (particularly agriculture) remains a top priority for the industry. It is significant that issues concerning agricultural markets have been at the forefront of industry development for as long as the survey has been conducted. However, even though there has been an increased focus on the development of processes and products for the penetration of the agricultural markets, responses to the 2009 financial year survey identify that quantities of product sold into agricultural markets by metropolitan processors remain relatively insignificant.

An issue that has re-emerged on the high priority list is the need for revision of product quality standards. This is expected as the current process of revision of the AS4454 standard proceeds.

Otherwise, the substantive issues are structural and remain relatively unchanged since the 2003 industry statement, and the initial 2003 NSW industry survey outcomes. These issues are Government related (ie. policy, regulation, financial incentives/disincentives) and can only be addressed by industry on a collectively and coherent basis working directly with government.

2.2 Western Australia

2.2.1 WA number and type of facilities

The total number of organics recycling facilities involved in the survey remained unchanged at 27 facilities for 2009. Whilst aerobic windrow composting (hot composting) remains the dominant method for reprocessing all manner of materials, the industry in WA is characterised by a significant diversity of organics processing technologies.

2.2.2 WA quantities of organic material received and processed

The total quantity of compostable organic materials reprocessed into beneficial recycled organics products has **increased** by around 3.9%, with a total of 621,207 tonnes of raw materials processed in 2009 compared to 597,841 tonnes of raw materials processed in 2008.

Notable developments:

- Reported quantities of garden organics diversion from the waste stream for reprocessing into beneficial recycled organics products have **increased** by ~ 42,500 tonnes to a total of 221,125 tonnes over the 2009 financial year (increase of ~ 24%).
- Reported quantities of wood/timber/sawdust (from commercial/industrial sources) diversion from the waste stream for reprocessing into beneficial recycled organics products have **decreased** by 73% (~ 10,500 tonnes) to a total of 6,218 tonnes over the 2009 financial year.
- Reported quantities of oils, grease trap and organic sledges diverted from the waste stream for reprocessing into beneficial recycled organics products have **increased** by 5,850 tonnes (increase of ~ 21%) to a total of 34,100 tonnes over the 2009 financial year.
- Reported quantities of MSW (organics fraction only) diversion from the waste stream for reprocessing into beneficial recycled organics products have **decreased** by 2,597 tonnes to a total of 96,053 tonnes over the 2009 financial year.
- Note reported quantities of MSW (organics fraction only) diversion from the waste stream for reprocessing into beneficial recycled organics products has **not** included processing at new AWT infrastructure in the metropolitan area currently under development.

2.2.3 WA quantities and type of recycled organic product sold

The clear trend reported in WA for 2008 continues in 2009. There was a continuing decline in sales of higher quality composted mulches to lower quality pasteurised mulches and a significant decline in sales of raw mulch. This is offset by corresponding growth in sales of the higher quality composted soil conditioners, manufactured soils and potting mix products.

This is characterised by:

- Reported a **decrease** in sales of composted mulch by ~ 22,000 m³ (~ 13%) to a total of 149,302 m³ over the 2009 financial year and the corresponding **increase** in reported sales of soil conditioners (composted and pasteurised) of ~ 24,000 m³ to a total of just under 336,000 m³ over the 2009 financial year.
- Reported sales of raw mulch **decreased** by 19% (~ 37,500 m³) to a total of 157,036 m³ over 2009. There is a corresponding shift to pasteurised mulch **increasing** in reported sales by ~ 35,000 m³ to a total of 91,950 m³ over 2009. This decrease in raw mulch and increase in pasteurised mulch is a continuing trend in 2009.
- Reported sales of manures (composted and raw) **decreased** considerably by 28,000 m³ (~ 60%) to a combined total of 27,440 m³ over the 2009 financial year. This decrease, specifically for composted manures represents a reversal of the gains experienced over 2008 for manure sales positioning decreasing manure sales over 2009 at similar levels to sales in 2007.
- Reported sales of manufactured soils **increased** significantly by ~ 49,000 m³ to a total of 218,750 m³ (~29%) over the 2009 financial year. Potting mixes also **increased** in reported sales for 2009 by 8,000 m³ to 171,944 m³.

2.2.4 WA inventories

Total inventories represent the combined quantity of raw materials, materials being processed, and stockpiles of finished product on-site at the end of the financial year. There is little value in attempting to distinguish between these categories as materials in process will be held back or pushed through to final product to meet sales orders. There has been a strong drive since the 2006 survey to clarify the question asked in relation to inventories via reduced complexity of subcategories, and to press the industry for a more accurate response. The current year survey continues this emphasis.

- Reported WA inventories appear to have stabilised, indicating a slight **decrease** for the 2009 financial year to 461,827 m³, a decrease of ~ 5.8% on the 2008 financial year total of 490,410 m³. The rate of decrease appears to have slowed significantly from the reported rate of decrease experienced in the previous financial year which indicated a decline in inventories of ~ 33.5% between 2008 and 2007 financial years.

2.2.5 WA industry issues and priorities

The key issues expressed by the industry are listed below in order of priority, with comparison to expressed priorities from the previous two survey years.

Table. Expressed recycled organics industry priorities in Western Australia.

Rank	Prioritised issues 2009	Prioritised issues 2008	Prioritised issues 2007
1.	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)
2.	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy
3.	Market and political perception of composts and industry (external), Promoting the national industry brand, Industry organisation and communication (internal), delivering value for CA members	Raw materials contamination	Inadequate / not enforced regulation of competing products
4.	Inadequate / not enforced regulation of competing products	Development of new products/markets (particularly agriculture)	Raw materials contamination
5.	Raw materials contamination	Inadequate / not enforced regulation of competing products	Development of new products/markets (particularly agriculture)

This year, as in the previous two years of 2008 & 2007, issues that place downward pressure on prices and that increase production costs are grouped together as these issues are central to commercial operations, indeed to the viability of the industry. The issues are still reported separately, but when aggregated, clearly the two standout issues remain: firstly commercial viability issues that arise from structural government integrated market issues; and secondly inconsistent and unnecessarily costly site regulation are again reported as the highest priority.

“Level playing field” issues reported in 2006 & 2007 remain, whereby competing products are not subject to equivalent regulatory requirements, and/or where such regulations as exist are not policed; and whereby non-commercial (local government) organics processing operations are reported to be distorting resource recovery markets. These issues relate to government intervention to establish a coherent and viable framework for the resource recovery sector, and the incentives to drive commercially viable resource recovery.

The top priority issues reported in 2008 remain top priority issues for 2009. In addition, in this first year of corporate membership fees co-funding industry development officers in various states, there is an emphasis on Compost Australia needing to deliver value for members, promotion of the industry “brand”, and positioning of the industry and products with the general public and in political circles as a tool for sustaining soil health and productivity in a changing climate. These issues have been recorded under different categories in the survey, and have been aggregated above into a combined category for clear identification.

2.3 Queensland

2.3.1 Qld number and type of facilities

The total number of organics recycling facilities involved in the survey increased by 6 from 38 facilities in 2008 to 44 facilities in 2009. This includes 6 additional regional (on-farm) facilities. Aerobic windrow composting (hot composting) remains the overwhelmingly dominant method for reprocessing all manner of materials, including garden vegetation and highly putrescible materials such as grease trap and organic sludges; manures and other agricultural residuals.

2.3.2 Qld quantities of organic material received and processed

The reported total quantity of compostable organic materials reprocessed into beneficial recycled organics products has increased by around 5.5% (or 89,094 tonnes), with a total of 1,702,335 tonnes of raw materials processed in 2009 compared to 1,613,241 tonnes of raw materials reported to have been processed in 2008.

Notable developments:

- Reported quantities of garden organics diversion from the waste stream for reprocessing into beneficial recycled organics products have notionally decreased by 85,385 tonnes (-20.2%) to a total of 337,865 tonnes over the 2009 financial year. The reported quantity excludes 92,000 tonnes of material processed by licensed commercial facilities in 2008 that is now processed on council sites. Clearly the total quantity of garden organics processed has remained steady. However, as with the 2008 report, this result excludes the 578,420 tonnes from local government sources that were included in the 2007 financial year survey, to avoid double counting as this data is collected in the Queensland local government survey.
- Reported quantities of forestry residuals (sawdust and barks) for reprocessing into beneficial recycled organics products have **increased** by ~4,000 tonnes (+5%) for sawdust to a total of 80,827 tonnes and by 51,525 tonnes (+44%) for barks to a total of 167,675 tonnes over the 2009 financial year. This is as a result of improved reporting and does not necessarily represent large increases in actual quantity of raw material being processed.
- Reported quantities of oils, grease trap and organic sludges diverted from the waste stream for reprocessing into beneficial recycled organics products have **increased** by 11,416 tonnes (+11%) to a total of 119,238 tonnes over the 2009 financial year.
- Reported quantities of biosolids/grit/screenings diversion from the waste stream for reprocessing into beneficial recycled organics products have **increased** by 21% (~ 87,000 tonnes) to a total of 490,139 tonnes over the 2009 financial year, due to significant increases in SE Queensland.
- Reported quantities of miscellaneous agricultural organics (including: sugar cane & sugar cane by-products; cotton trash; skudge; offal; and spent mushroom bedding) for reprocessing into beneficial recycled organics products have **increased** by 7,330 tonnes (+10%) to a total of 80,800 tonnes over the 2009 financial year.

- Reported quantities of other miscellaneous raw materials (including: ash; leachate; mill mud; and organic content of C&I waste) diverted from the waste stream for reprocessing into beneficial recycled organics products have **increased** by over 17,720 tonnes (+112%) to a total of 33,580 tonnes over the 2009 financial year.

2.3.3 Qld quantities and type of recycled organic product sold

Industry reported significant increases in sales of recycled organics products across a range of product categories. Notable developments:

- **Increased** sales of composted soil conditioner from ~ 170,000 m³ to ~ 197,000 m³ (+15.8%) are reported, along with an **increase** in sales of pasteurised soil conditioner from 49,100 m³ to 54,400 m³ reflecting a net gain of ~ 32,000 m³ for reported sale of soil conditioners. There was a significant shift away from agricultural to urban markets for composted soil conditioner sales in 2009.
- Reported sales of composted mulch remained steady at ~ 100,000 m³ over the 2009 financial year. Sales of raw mulch have reportedly **decreased** from ~ 344,000 m³ to ~ 330,000 m³ while sales of pasteurised mulch have **increased** to 15,000 m³, reflecting a net gain of ~ 1,000 m³ for mulches. These figures do not include products manufactured by local council that are derived from garden organics collections, with the exception of Hervey Bay Council and some other local councils whose materials are processed at independent commercial facilities.
- Reported sales of manufactured soils **significantly decreased** from 605,759 m³ to a total 414,856 m³ (-31%) over 2009. This decrease of ~ 191,000 m³ represents a significant decrease in reported sales by 2 manufactured soil processors, most of which was being sold into the intensive agriculture market. This decrease also disguises the actual increase in reported manufactured soils sales into the urban market by other processors for the 2009 financial year. Urban markets now account for ~ 90% of manufactured soils, up from ~ 55% in 2008, which was up from ~ 41% in 2007.
- The biosolids raw material used to manufacture soils for the rehabilitation market reported in 2007 and then for the intensive agriculture market reported in 2008 is now being utilised mainly for direct land application which has **significantly increased** from 116,000 m³ to 230,000 m³ (+98%).
- Reported sales of potting mix **increased** from 179,009 m³ to a total 184,135 m³ (+3%) over the 2009 financial year.
- The miscellaneous agricultural organics and other miscellaneous raw materials categories are reportedly continuing to be pushed as raw mulches by the cane industry and associated entities, which have an influence on the recycled organics industry in Qld.

2.3.4 Qld inventories

Total inventories represent the combined quantity of raw materials, materials being processed, and stockpiles of finished product on-site at the end of the financial year. There is little value in attempting to distinguish between

these categories as materials in process will be held back or pushed through to final product to meet sales orders. There has been a strong drive since the 2006 survey to clarify the question asked in relation to inventories via reduced complexity of subcategories, and to press the industry for a more accurate response. The current year survey continues this emphasis.

- Reported inventories appear to have **decreased** from 1,112,425 m³ for the 2008 to 1,038,340 m³ for the 2009 financial year, an decrease of ~ 6.7%. This 2009 decrease of ~74,000 m³ represents 30% of the increased inventory gains reported in the 2008 financial year survey and is still well above the 2007 reported inventories of 917,325 m³.

2.3.5 Qld industry issues and priorities

The key issues expressed by the industry are listed below in order of priority, with comparison to expressed priorities from the previous two survey years.

Table. Expressed recycled organics industry priorities in Qld.

Rank	Prioritised issues 2009	Prioritised issues 2008	Prioritised issues 2007
1.	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)
2.	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy
3.	Inadequate / not enforced regulation of competing products	Inadequate / not enforced regulation of competing products	Inadequate / not enforced regulation of competing products
4.	Development of new products / markets (particularly agriculture)	Compost product marketing and sales support	Compost product marketing and sales support
5.	Product quality standards need revision	Raw materials contamination	Raw materials contamination

The top 3 priorities reported in 2009 remain unchanged from the previous two years. This year, as in 2007-2008, issues that place downward pressure on prices and that increase production costs are grouped together as these issues are key to the commercial profitability, indeed viability of the industry. The component issues are still reported separately, but when aggregated, clearly the three standout issues remain: 1. commercial viability issues that arise from structural and government integrated market issues; 2. inconsistent and unnecessarily costly site regulation is reported as the highest priority issue; and 3. inadequate/not enforced regulation of competing products.

“Level playing field” issues reported in 2006-2008 remain, whereby competing products are not subject to equivalent regulatory requirements, and/or where such regulations as exist are not policed; and whereby non-commercial organics processing operations are reported to be distorting resource recovery markets. These issues relate to government intervention to establish a coherent and viable framework for the resource recovery sector, and the incentives to drive commercially viable resource recovery.

The development of new products/markets (particularly agriculture) has emerged as a top priority for the industry in 2009. It is significant that issues concerning agricultural markets have been at the forefront of industry development for as long as the survey has been conducted. However, even though there has been an increased focus on the development of processes and products for the penetration of the agricultural markets, responses to the 2009 financial year survey identify that quantities of product sold into agricultural markets has decreased significantly, and identifies increases into the urban markets for all relevant products over the 2009 financial year.

An issue that has re-emerged on the high priority list is the need for revision of product quality standards. This is expected as the current process of revision of the AS4454 standard proceeds.

With respect to this issue, one Queensland processor has suggested that the Hazard and Critical Control Point (HACCP) certification may be an issue when selling product to commercial growers. It should be noted that a range of best practice compost production guidance manuals in Australia are grounded in a HACCP approach.

Numerous commercial processors identified a desire to gain greater access to garden organics for processing, but expressed frustration that local councils were not releasing such materials into the market for them to bid for to manufacture quality products but instead were shredding and distributing as a low quality raw mulch product.

Otherwise, the substantive issues are structural and remain relatively unchanged since the initial 2006 Qld industry survey outcomes. These issues are Government related (ie. policy, regulation, financial incentives/disincentives) and can only be addressed by industry on a collectively and coherent basis working directly with government.

2.4 South Australia

2.4.1 SA number and type of facilities

The total number of organics recycling facilities involved in the 2009 financial year survey remained stable at 32 facilities, the same as 2008. Aerobic windrow composting (hot composting) remains the overwhelmingly dominant method for reprocessing all manner of materials, including garden vegetation and highly putrescible materials such as grease trap and organic sludges; food organics (elsewhere food waste); manures and other agricultural residuals.

2.4.2 SA quantities of organic material received and processed

The total reported quantity of compostable organic materials reprocessed into beneficial recycled organics products has increased marginally from the previous year, with a total of 633,335 tonnes of raw materials processed in 2009 compared to 627,980 tonnes of raw materials processed in 2008. The variations for most types of raw material are insignificant when compared to the total quantity of all the raw materials being processed.

Notable developments:

- Reported quantities of garden organics diversion from the waste stream for reprocessing into beneficial recycled organics products **increased** by around 1,200 tonnes (+0.6%) to a total of 203,588 tonnes over the 2009 financial year.
- Reported quantities of forestry residuals diversion from the waste stream for reprocessing into beneficial recycled organics products **decreased** by around 2,400 tonnes (-1.1%) for barks and sawdust to a combined total of 219,810 tonnes over the 2009 financial year (from 222,168 tonnes reported in 2008).
- Reported quantities of oils, grease trap, sludges diverted from the waste stream for reprocessing into beneficial recycled organics products **increased** by around 9,000 tonnes (+24%) to a total of 45,468 tonnes over the 2009 financial year. This is a continuing trend from the previous two financial years which reported increases of 44% (2008) and 42% (2007).
- Reported quantities of manure diversion from the waste stream for reprocessing into beneficial recycled organics products **increased** by around 2,500 tonnes (+4.9%) to a total of 52,553 tonnes over the 2009 financial year.

2.4.3 SA quantities and type of recycled organic product sold

Reported sales figures for 2009 survey appear to confirm a moderate shift towards high quality composted soil conditioners, and a corresponding reduction in sale of high quality composted mulches. This is a minor reversal, effectively halting a two year trend that has seen significant reductions in the sale of composted soil conditioners reported in the 2008 and 2007 surveys. There was a continuing trend in the sales growth of higher quality manufactured soils in South Australia.

Notable developments:

- Reported sales of soil conditioner products has **increased** from 85,684 m³ in 2008 to 101,803 m³ in 2009, representing an increase of ~ 19% over 2009 for soil conditioner products sold.
- Reported sales of mulch products have **decreased** from 1,023,301 m³ in 2008 to 1,000,484 m³ in 2009. This represents a decrease of ~ 2.2% over 2009 for all mulches sold. Composted mulches decreased by ~ 29,000 m³ while raw and pasteurised mulches increased by ~ 6,500 m³. This represents a slight shift away from the higher quality composted mulch to lower quality mulches and the higher quality soil conditioners.
- Reported sales of manufactured soils **increased** (~ 51%) from ~ 34,950 m³ to a total of ~ 52,701 m³ over the 2009 financial year.
- Reported sales of composted manure **increased** (~ 7%) from ~ 89,000 m³ to a total of just over ~ 95,500 m³ over the 2009 financial year.

2.4.4 SA inventories

Total inventories represent the combined quantity of raw materials, materials being processed, and stockpiles of finished product on-site at the end of the financial year. There is little value in attempting to distinguish between these categories as materials in process will be held back or pushed through to final product to meet sales orders. There has been a strong drive since the 2006 survey to clarify the question asked in relation to inventories via reduced complexity of subcategories, and to press the industry for a more accurate response. The current year survey continues this emphasis.

- Reported inventories appear to have **decreased** from just over 875,640 m³ to a total of 856,640 m³ over the 2009 financial year. This represents a reported decrease of just under 19,000 m³ or ~ 2.2%.

2.4.5 SA industry issues and priorities

The key issues expressed by the industry are listed below in order of priority, with comparison to expressed priorities from the previous two survey years.

Table. Expressed recycled organics industry priorities in South Australia.

Rank	Prioritised issues 2009	Prioritised issues 2008	Prioritised issues 2007
1.	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)
2.	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	Unaffordable new demands from regulators forcing exit from industry
3.	Raw materials contamination	Raw materials contamination	Viable product price is unaffordable for customers/ key markets
4.	Inadequate / not enforced regulation of competing products	Inadequate / not enforced regulation of competing products	Raw materials contamination
5.	Research & development / inadequate compost performance data	Research & development / inadequate compost performance data	Downward pressure on prices/quality from increasing supply (oversupply)

The prioritised issues reported for 2009 remain unchanged from the previous year survey of 2008. This year, as in 2007 and 2008, issues that place downward pressure on prices and that increase production costs are grouped together as these issues are key to the commercial profitability, indeed viability of the industry. The issues are still reported separately, but when aggregated, clearly the two standout issues remain: firstly commercial viability issues that arise from structural government integrated market issues; and secondly inconsistent and unnecessarily costly site regulation is reported as the highest priority issue. Whilst inconsistent and unnecessarily costly site regulation is overwhelmingly reported as the single highest priority issue, the clear expressed current need is for:

- Financial incentives and technical assistance (new product development) for establishing new markets.
- Resolving the market affordability barriers via government financial incentives, increased gate fees, and reduced operating costs (arising from management of raw material contamination and unnecessary regulatory compliance costs).
- “Level playing field” issues reported in 2006-2008 remain, whereby competing products are not subject to equivalent regulatory requirements, and/or where such regulations as exist are not policed; and whereby non-commercial organics processing operations are reported to be distorting resource recovery markets. These issues relate to government intervention to establish a coherent and viable framework for the resource recovery sector, and the incentives to drive commercially viable resource recovery.
- Research & development / inadequate compost performance data remains as a top 5 priority issue for the industry, an understandable issue responding to “how best to meet grower needs” with significant sales volumes to production horticulture.

2.5 Victoria

The survey of the Recycled Organics industry in Victoria has been conducted directly by Sustainability Victoria for the 2008 – 09 financial year. Aggregated data has been supplied by Sustainability Victorian, and this data has been incorporated into the aggregated Compost Australia aggregated data tables in Section 3.

Note that:

- The survey in Victoria was last conducted directly by Sustainability Victoria in 2006. Therefore, comparison between years is more problematic than as for other states where data is collected annually;
- The Sustainability Victoria survey delivers limited results for all sections of the Compost Australia survey;
- Product quantity results are now reported in product categories that are consistent with those reported for all other states, but in previous years product categories used for reporting in Victoria have been inconsistent with the standard categories reported for all other states, and therefore, comparison between years is not provided;
- Product quantity data is reported by Sustainability Victoria in either tonnes or cubic meters, across other states for both the current and previous years such data is reported in cubic metres. Standard ROU survey conversion factors have been applied to the Victorian data where necessary, these factors may not be consistent with those applied by Sustainability Victoria.

Whilst these issues limit the capacity for interpretation and comparison with previous year's data, the ROU is appreciative of Sustainability Victoria to provide more consistent data, and extends specific thanks to Brock Baker.

2.5.1 Vic number and type of facilities

The total number of responses to the survey increased from 19 responses (from 33 companies surveyed) in 2006 to 25 responses (from 28 companies surveyed) in 2009. This compares to 39 responses received for the 2005 survey (implemented directly by the Recycled Organics Unit). The fluctuations in response rate from the industry for the survey between the years, and the variation in both response rate and quality of data across multiple years limits interpretation of this data.

2.5.2 Vic quantities of organic material received and processed

The total quantity of organic materials reprocessed into beneficial recycled organics products has reportedly increased from 378,604 tonnes in 2006, to a total of 728,142 tonnes of raw materials processed in 2009. Note that soil has been excluded as an input material as it is not organic.

Notably:

- Reported quantities of garden organics diversion from the waste stream for reprocessing into beneficial recycled organics products is 283,718 tonnes over the 2009 financial year.
- Reported quantities of wood/timber/sawdust from commercial/industrial sources is for reprocessing into beneficial recycled organics products is 87,523 tonnes over the 2009 financial year.
- Reported quantities of barks and sawdust from forestry sector sources is for reprocessing into beneficial recycled organics products is 156,681 tonnes over the 2009 financial year.
- Reported quantities of oils, grease trap, sludges diversion from the waste stream for reprocessing into beneficial recycled organics products is 63,927 tonnes over the 2009 financial year.

2.5.3 Vic quantities and type of recycled organic product sold

Notably:

- Total reported sales of pasteurised and composted soil conditioner of ~ 193,000 m³, with ~ 84% of this sold into urban markets.
- Total reported sales of mulch of ~ 827,000 m³. Of this total ~ 694,000 m³ is raw mulch and ~ 132,000 m³ is composted mulch. Data does not allow determination of the market segments into which these products have been sold.
- Reported sales of manufactured soils for the 2009 financial year were 131,072 m³.
- Reported sales of playground surfacing for the 2009 financial year were 74,781 m³.
- Reported sales of composted manure for the 2009 financial year were 115,000 m³.
- Very little biosolids are reported to be reprocessed into recycled organic products for sale in Victoria.

2.5.4 Vic inventories

Total inventories represent the combined quantity of raw materials, materials being processed, and stockpiles of finished product on-site at the end of the financial year. There is little value in attempting to distinguish between these categories as materials in process will be held back or pushed through to final product to meet sales orders.

It is clear from the reported quantities of inventory stockpiles for the 2009 financial year that this data does not reflect actual inventories in Victoria. Around half the respondents did not report inventories, and reported inventories include only finished products. The reported inventories for the 2009 financial year were 61,397 m³.

2.5.5 Vic industry issues and priorities

The key issues expressed by the industry are listed below in order of priority, with comparison to expressed priorities from the previous survey year.

Table. Expressed recycled organics industry priorities in Qld.

Rank	Prioritised issues 2009	Prioritised issues 2008
1.	Factors placing downwards pressure on prices and increasing production costs (oversupply, competition from non-commercial facilities, fuel price, absence of incentives for growers)	Not surveyed in 2008
2.	Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy	
3.	Raw materials contamination	
4.	Compost product marketing and sales support	
5.	Development of new products / markets (particularly agriculture)	

As this data has not been collected since the 2005 survey, no comment on trends is provided. However, the priority issues reported by processors in Victoria are fundamentally similar to those reported in other jurisdictions, and are issues that can be addressed effectively via industry collaboration on a whole-of-industry basis.

2.6 Australian Capital Territory, Tasmania and Northern Territory

It is hoped that the ACT, NT and Tas will participate in the 2010 national industry survey. Please refer to *Organics Recycling in Australia: Industry Statistics 2006* report for ACT data from that year survey, available online from www.compostaustralia.com

Recommendations 2008-09

2.7 Recommendations for survey implementation

- Implementation of the survey must begin at the beginning of August, close to the end of financial year and prior to the busy spring sales period, the busiest period of the year for the industry. This is required both for the purpose of achieving superior data quality and for timeliness of reporting of results for use by industry and government for planning and to inform current year sales and programs; and to satisfy the various state agencies that contribute funding for survey implementation.
- Any revisions to the survey must be specified at the end of the survey period to be implemented in the subsequent year survey. Consultation and negotiation on revisions directly prior to survey implementation serve only to further delay implementation into the busiest spring period, and the Christmas lead-up period, which is the worst possible period of the year for industry participation.
- The states and territories must be engaged in this project from end of January to ensure project is budgeted, and that authorisation/formalisation is achieved for timely survey implementation from end of July. Delays in formalisation of participation, and funding from the various state agencies, leads directly to client dissatisfaction in terms of timely availability of results, and undermines usefulness of data to industry.
- Survey of the industry in Victoria continues to be implemented directly via Sustainability Victoria. Victorian data must be secured in a timely manner so as to enable inclusion in this report. As per previous year recommendations, data from Victoria must be provided in a manner that is compatible with national industry survey and reporting to enable incorporation. 2009 represented a significant improvement on previous years, and Sustainability Victoria is congratulated for their effort.
- The opportunity for inclusion of the industry in ACT, Tasmania and Northern Territory to extend the survey scope to a truly national exercise, as per previous recommendations, and in spite of renewed effort in 2009, remains an opportunity to be realised.
- ROU and Compost Australia have developed an action plan for broadening the scope of the project to a truly national survey. This plan is intended for implementation in 2010.

Aggregated survey results 2008-09 financial year

Please refer to subsequent pages. Please note: ACT, Tasmania and NT have not been included in the 2008 survey, as identified in sections 2.6 above; Victorian data was provided by Sustainability Victoria, as identified in section 2.5 above.

COMPOST AUSTRALIA - ORGANICS INDUSTRY National Aggregate Survey 2008/09 Financial Year		National total	NSW total	WA total	SA total	VIC total	QLD total
SECTION A - Organisation details							
2 Facility type	Total No.	186	59	27	32	25	43
On-farm operation		48	18	2	9		19
Council facility		8	2		2	3	1
Licensed commercial facility		102	34	25	20		23
Other ¹		28	5		1	22	
	Response rate%	97	100	100	97	89	98
SECTION B: Raw materials received/processed							
3 Total quantity of raw materials processed	t	5,279,061	1,594,042	621,207	633,335	728,142	1,702,335
4 Types of raw materials processed							
Garden organics (green organics / garden vegetation)	t	1,659,937	613,641	221,125	203,588	283,718	337,865
Wood/timber/sawdust (from commercial/industrial sources)	t	211,249	74,622	6,218	15,056	87,523	27,830
Sawdust (from forestry residuals)	t	246,858	102,188	22,940	12,060	28,843	80,827
Barks (from forestry residuals)	t	770,398	144,958	122,177	207,750	127,838	167,675
Food organics (food waste)	t	136,089	102,500	7,177	4,820	12,966	8,626
Biosolids/grit/screenings	t	681,549	134,100	24,869	1,371	31,070	490,139
Oils, grease trap, sludges	t	281,131	18,398	34,100	45,468	63,927	119,238
Straw	t	25,397	3,350	6,930	9,917	5,200	
Manure	t	681,929	224,831	30,760	55,145	67,166	304,027
Animal bedding	t	13,070	250	5,520	6,600		700
Animal mortalities	t	12,168	6,657	4,100	525	840	46
Paunch	t	19,732	750	1,800	7,500		9,682
Other - Miscellaneous agricultural organics	t	144,517	36,100	9,648	12,185	5,784	80,800
Other - Paper pulp/sludge	t	57,050	7,000		50,050		
Other - MSW (organic fraction)	t	236,968	99,615	96,053			41,300
Other - Biowaste	t	32,367	21,571	200		10,596	
Other - Miscellaneous	t	68,652	3,511	27,590	1,300	2,671	33,580

COMPOST AUSTRALIA - ORGANICS INDUSTRY		National	NSW	WA	SA	VIC	QLD	
National Aggregate Survey 2008/09 Financial Year		total	total	total	total	total	total	
SECTION C: Recycled organics product types and quantities sold								
5 Total quantity of product sold, recycled organics content ² , market breakdown ^{3,6}								
<i>Composted soil conditioner</i>								
	Quantity product sold ³	m ³	1,306,210	542,737	309,363	101,140	156,397	196,573
	Recycled organic content	%	96	97	97	98	93	94
	Intensive agriculture	m ³	142,196	43,768	12,899	57,263	3,556	24,710
	Extensive agriculture	m ³	164,940	73,090	56,445	4,455		30,950
	Urban amenity	m ³	908,628	411,080	196,687	35,165	125,133	140,563
	Rehabilitation	m ³	20,646	9,259	10,487	900		
	Enviro-remediation	m ³	38,035	4,840	32,845			350
<i>Pasteurised soil conditioner</i>								
	Quantity product sold	m ³	293,462	175,000	26,520	663	36,879	54,400
	Recycled organic content	%	94	100	88	100	100	83
	Intensive agriculture	m ³	600	600				
	Extensive agriculture	m ³	64,900	54,000				10,900
	Urban amenity	m ³	182,062	115,000	26,520	663	36,879	3,000
	Rehabilitation	m ³	40,500					40,500
	Enviro-remediation	m ³	5,400	5,400				
<i>Composted mulch</i>								
	Quantity product sold	m ³	603,450	42,754	149,302	178,945	131,938	100,511
	Recycled organic content	%	100	100	100	100	100	100
	Intensive agriculture	m ³	124,101	9,172	11,891	74,438	3,600	25,000
	Extensive agriculture	m ³	2,982	52	2,500	430		
	Urban amenity	m ³	321,330	31,694	121,825	39,702	52,598	75,511
	Rehabilitation	m ³	7,422	1,836	5,586			
	Enviro-remediation	m ³	7,500		7,500			
<i>Pasteurised mulch</i>								
	Quantity product sold	m ³	179,718	3,076	91,950	68,007	1,685	15,000
	Recycled organic content	%	90	100	100	100	100	50
	Intensive agriculture	m ³	1,150			1,150		
	Extensive agriculture	m ³	0					
	Urban amenity	m ³	172,215	1,723	86,950	66,857	1,685	15,000
	Rehabilitation	m ³	1,353	1,353				
	Enviro-remediation	m ³	0					
<i>Raw mulch</i>								
	Quantity product sold	m ³	2,007,649	72,825	157,036	753,532	693,638	330,618
	Recycled organic content	%	100	100	100	100	100	100
	Intensive agriculture	m ³	58,385	1,122	56,263			1,000
	Extensive agriculture	m ³	0					
	Urban amenity	m ³	1,167,984	71,703	97,573	153,532	515,558	329,618
	Rehabilitation	m ³	20,342		3,200			17,142
	Enviro-remediation	m ³	4,286					4,286
<i>Manufactured soil</i>								
	Quantity product sold	m ³	1,203,810	386,431	218,750	52,701	131,072	414,856
	Total RO content in product	m ³	702,329	263,832	104,750	29,740	103,796	200,210
	Recycled organic content	%	20 - 100	30 - 85	45 - 50	20 - 100	50-100	30 - 80
	Intensive agriculture	m ³	41,050					41,050
	Urban amenity	m ³	1,111,940	335,611	218,750	52,701	131,072	373,806
	Rehabilitation	m ³	47,760	47,760				
	Enviro-remediation	m ³	3,060	3,060				
<i>Potting mixes</i>								
	Quantity product sold	m ³	788,791	190,455	171,944	174,525	67,732	184,135
	Total RO content in product	m ³	611,524	119,908	104,720	157,453	57,040	172,404
	Recycled organic content	%	20 - 100	20 - 100	45 - 100	80 - 100	80-100	20 - 100
	Intensive agriculture	m ³	153,846	3,148	4,924	145,774		
	Urban amenity	m ³	534,945	187,307	167,020	28,751	67,732	84,135

COMPOST AUSTRALIA - ORGANICS INDUSTRY		National	NSW	WA	SA	VIC	QLD	
National Aggregate Survey 2008/09 Financial Year		total	total	total	total	total	total	
SECTION C: Recycled organics product types and quantities sold (continued)								
<i>Playground surfacing</i>								
	Quantity product sold	m ³	126,838	8,800		23,257	74,781	20,000
	Recycled organic content	%	100	100		100	100	100
	Urban amenity	m ³	126,838	8,800		23,257	74,781	20,000
<i>Biofuels/biogas (energy from methane)</i>								
	Quantity product sold	kWh	16,601,500	16,601,500				
<i>Biofuels/solid fuel</i>								
	Quantity product sold	m ³	20,000	20,000				
<i>Other - Composted products</i>								
	Quantity product sold	m ³	73,570	24,240	7,700		41,600	30
	Recycled organic content	%	98	90	100		100	100
	Intensive agriculture	m ³	47,615	6,000			41,600	15
	Extensive agriculture	m ³	0					
	Urban amenity	m ³	18,015	18,000				15
	Rehabilitation	m ³	7,700		7,700			
	Enviro-remediation	m ³	0					
<i>Other - Organic fertiliser</i>								
	Quantity product sold	t	2,480	1,400				1,080
	Recycled organic content	%	100	100				100
	Intensive agriculture	t	0					
	Extensive agriculture	t	0					
	Urban amenity	t	0					
	Rehabilitation	t	0					
	Enviro-remediation	t	280					280
<i>Other - Composted manure</i>								
	Quantity product sold	m ³	855,196	330,000	17,440	95,451	115,000	297,305
	Recycled organic content	%	100	100	100	99	100	100
	Intensive agriculture	m ³	264,768	246,300	833	14,751		2,884
	Extensive agriculture	m ³	78,782	5,000	357	59,032		14,393
	Urban amenity	m ³	92,866	65,175	5,000	21,688		1,003
	Rehabilitation	m ³	13,325	13,300				25
	Enviro-remediation	m ³	225	225				
<i>Other - Raw manure</i>								
	Quantity product sold	m ³	82,195	37,195	10,000	35,000		
	Recycled organic content	%	100	100	100	100		
	Intensive agriculture	m ³	17,645	345		17,300		
	Extensive agriculture	m ³	50,850	34,150		16,700		
	Urban amenity	m ³	12,700	2,700	10,000			
	Rehabilitation	m ³	0					
	Enviro-remediation	m ³	0					
<i>Other - Direct land application</i>								
	Quantity product sold	m ³	329,000	99,000				230,000
	Recycled organic content	%	36	57				14
	Food organics	m ³	57,000	57,000				
	Biosolids	m ³	253,500	23,500				230,000
	Other	m ³	17,500	17,500				
<i>Other - Aqueous compost extracts</i>								
	Quantity product sold	L	2,061,800	60,000		2,000,000		1,800
	Intensive agriculture	L	1,420,000	20,000		1,400,000		
	Extensive agriculture	L	0					
	Urban amenity	L	641,800	40,000		600,000		1,800
	Rehabilitation	L	0					
	Enviro-remediation	L	0					
SECTION D: Inventory on site								
6 Total all material/product on site 30-06-09 ⁴		m ³	3,077,142	658,938	461,827	856,640	61,397	1,038,340

COMPOST AUSTRALIA - ORGANICS INDUSTRY National Aggregate Survey 2008/09 Financial Year		National total	NSW total	WA total	SA total	VIC total	QLD total
SECTION E: Industry issues and priorities							
7 Industry issues, priorities							
<i>Higher value represents a higher priority for industry ^{7.5}</i>							
7.1 Industry structural economics & government incentives	84	21	15	9	24	15	
7.2 Gate fees too low (metro areas)/ tender appraisal is price driven	57	12		15	27	3	
7.3 Raw materials contamination	66	24	9	15	15	3	
7.4 Site regulation and planning consent - inconsistent, unnecessarily costly, requirements don't support policy; Unaffordable new regulatory demands forcing exit from industry	108	30	15	21	21	21	
7.5 Development of new products/markets (particularly agriculture)	57	27	9	6	9	6	
7.6 Saturation of particular markets	21	9		3	9		
7.7 Govt interference in markets / direct govt interaction with customers	0						
7.8 Research and development / inadequate compost performance data	27	9	3	9	3	3	
7.9 Product quality standards need revision	27	9	9		3	6	
7.10 Technical support and training	18	3	3	6	6		
7.11 Viable product price is unaffordable for customers key markets	27	12	3		3	9	
7.12 Industry organisation and communication (internal)	9	3	6				
7.13 R&D ignoring customer affordability	0						
7.14 Limited government purchasing / green purchasing	9				9		
7.15 Uncompetetive /non-commercial competition in service delivery from local govt facilities, driving price/quality down	15		9		6		
7.16 Major chains are price driven and will not pay for quality	3	3					
7.17 Market & political perceptions of compost & industry	15		6		6	3	
7.18 Limited transfer of research into practice	0						
7.19 Increasing fuel price/transport costs	42	9	3		9	21	
7.20 Govt drive to force non-viable investment into high tech composting	0						
7.21 Food waste separation not supported / not financially viable	3	3					
7.22 Complaints from neighbours	3					3	
7.23 Financial incentives for Growers (e.g rebate)	30	9	6	6		9	
7.24 Cheap sub-standard products marketed under same product name	12	9	3				
7.25 Financial and other govt support for waste to energy options	0						
7.26 Standard quality assurance procedures needed	12			6	6		
7.27 Mechanism required for recovering ecoservices value	3				3		
7.28 Compost product marketing and sales support	21	3		3	12	3	
7.29 C&D waste dumped in to market	0						
7.30 No gate fee/levy in regional areas	3	3					
7.31 Downward pressure on prices/quality from increasing supply (oversupply)	18	3	9	3		3	
7.32 Inadequate / not enforced regulation of competing products	75	27	12	9	9	18	
7.33 Water restrictions reducing demand (urban)	9	3		3	3		
7.34 Need application-specific product standards	6	3				3	
7.35 Product R&D not directed at commercial market demand creation	6		3	3			
7.36 Innadequate understanding of agricultural economics / risks	3	3					
7.37 Regulatory definition of "waste" and "beneficial use" restricts transition to sustainability	0						
7.38 Other - Delivering value for CA members	6		3	3			

COMPOST AUSTRALIA - ORGANICS INDUSTRY National Aggregate Survey 2008/09 Financial Year		National total	NSW total	WA total	SA total	VIC total	QLD total
SECTION F: Product quality standards							
Number of facilities producing to quality standards	60	17	10	6	8	19	
8.1 Number of processors manufacturing certified product							
AS 4454 - Composts, soil conditioners, mulches	40	12	8	5	6	9	
AS 3743 - Potting mixes	14	4	4	3	2	1	
AS 4419 - Landscaping soils	19	6	4	1	1	7	
Organic product standard - BFA, NASAA	24	8	3	6	1	6	
Other - Biosolids guideline	3	1				2	
Other - Compost Australia Leaf Mark	1		1				
Other	15	3	1	3	3	5	
Footnotes							
1 Other types of facilities include: renderer of offal; direct land application; facilities 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 Note: figures provided are commonly "informed estimate" rather than formal quantitative survey.							
5 The green colour indicates most significant issues							
6 Product quantities reported in Section C may be sold to markets located outside the region							
7 Note: numerous issues collectively effect commercial viability, including 7.1, 7.2, 7.6, 7.11, 7.15, 7.19, 7.23, 7.29, 7.30, 7.31, 7.32							