SECTION 4

Food Waste



Reducing and managing food waste in ECEC settings

Defining the food waste principle

Food waste can be defined as food that is removed from the human supply chain, ending in either landfill, sewers, compost, or land application.[39] Food waste incorporates edible parts of food and inedible parts e.g., bones, pits. Food waste can occur at various stages of the food system including production, processing, distribution, retail, and consumption. This section is focused on the retail and consumption level. The sustainable development goals and Australia's national food waste strategy aim to halve food waste at retail and consumer levels by 2030.[24,40]

Food waste and ECEC Services

As outlined in MMQ (Section 2) ECEC services provide at least 50 per cent of children's daily requirements across the meals offered. Combined with the high proportion of Australian children enrolled in ECEC, this means the sector has the potential to impact food waste at a substantial scale. It is estimated that a service catering for 200 children typically produces around 1.7 tonnes of food waste annually and this can be halved by implementing food waste reduction strategies.[28]

In the ECEC setting are two key elements to reducing the environmental impact of food waste:

1. Reducing the amount of food wasted and
2. Managing food waste to reduce its environmental impact (e.g., composting/worm farms).[24,26,31]

In the ECEC context where food is provided onsite, there are four types of food waste categories:

- **Inedible waste (bones, apple cores etc)** – this is largely unavoidable.
- **Kitchen waste** – food that was purchased and not yet prepared but has gone out of date, or wasted during the preparation of meals, for example potato peels.
- **Serving waste** – food that was prepared but never plated.
- **Plate waste** – food that was plated but not eaten.

Food waste in lunchbox services

In lunchbox services, plate waste (food that remains uneaten in children's lunchboxes) is likely to be the main type of food waste. Depending on lunchbox contents, packaging waste from lunchbox items may also contribute to the overall waste generated.

Inedible food waste

Although waste from inedible parts of food (e.g. banana peels, eggshells, watermelon rind) is largely unavoidable, strategies can help minimise avoidable food waste during preparation, serving and children's meals in ECEC settings.

A whole-of-service approach to food waste

Food waste reduction/management is most successful when it is embedded as a whole-of-service approach.[31] Collaboration between service leaders, educators, cooks, and families helps create a shared culture of sustainability and supports long term behaviour change. While specific responsibilities may vary across roles, all staff, children and families have an important part to play in reducing food waste.

NATIONAL QUALITY STANDARD
QA3, QA7

Reflective questions

Service leadership team

- *What systems do we have for communicating between educators and the kitchen about attendance numbers, food experiences or changes that affect how much food is needed?*
- *How do we monitor whether food and drink offered across the day meets children's needs, without over or under catering? What signals tell us when this balance is off, and how quickly do we act on them?*

Educators

- *How do we involve children in reducing food waste during mealtimes? What do we notice about their understanding of why it matters?*
- *How do we balance reducing plate waste with respecting children's autonomy and their own "had enough" cues?*

Reducing the amount of food wasted in ECEC services

Understand how much food is wasted

Understanding how much food is being wasted on which day and at which meal in the service can be a key first step to understanding where changes need to be made.

When doing a food waste review often services only focus on plate waste (the food that was served to children but not eaten), however serving waste (the food that was prepared and never served to children) can constitute a higher percentage of the total food waste in the service[27], so it is important to consider both when reviewing food waste. In addition, monitoring kitchen waste, for example, keeping a record of kitchen waste (the food that was purchased but went out of date) can be useful.[26,28]

Match strategies to where food waste occurs

Once you have identified where food waste occurs, use the table below to help prioritise the strategies that are likely to have the greatest impact. Further information on each strategy is provided later in this section.

If food waste is mainly...	Consider focusing on...
Avoidable kitchen waste (waste beyond inedible food such as eggshells and watermelon rinds)	• Storage approaches • Menu planning • Meal preparation strategies
Serving waste (food that was prepared and never plated)	• Effective communication • Menu and meal planning • Repurposing unused (untouched) food and leftovers
Plate waste (plated for children and not eaten)	• Menu and meal planning • Effective Communication • Involving children in menu planning and food waste discussions • Mealtime practices

It is important to note that whilst children's food preferences are still developing, it is reasonable to expect that some plate waste will occur, some days more than others.

Knowledge and training for food waste reduction and management

Building staff capability in food waste reduction and management can support more sustainable practices, reduce unnecessary food waste and contribute to cost savings for the service. The following knowledge areas and skills can help build staff knowledge, skills and confidence.

Cook/chef

- Being able to plan standard recipes.
- Follow food safety protocols.
- Manage multiple dietary requirements.
- Recipe modification.
- Pantry and fridge management.

Training could include:

- Planning and preparing the right amount of food.
- Commercial food principles.
- Food safety training.
- How to set up systems to reduce and manage food waste.

Educator

- Knowledge, understanding and implementation of responsive feeding practices – responding to children's hunger and 'had enough' cues.
See Mealtime Environment and Practices, Section 2, page 20
- Effective communication with the kitchen about children's attendance, menu feedback, food experiences, and how meals are served. *See Menu and Meal Quality, Section 7, page 76*

Service leader

- Food waste management and reduction strategies in the service can become part of a service's procedures and quality improvement plan.
- Facilitating team communication through regular meetings and setting up systems for cook-educator food communication.

NATIONAL QUALITY STANDARD
QA7

Strategies for reducing food waste

The following strategies, together with common considerations, challenges and potential solutions, are designed to support food waste reduction in your service.

Refer overpage for details on challenges/considerations and potential solutions.



Effective communication

A key cause for serving waste (food prepared but not plated) is a lack of chef/cook being informed about the number of children in attendance on the day. Having a system in place (e.g., notifying the chef by a certain time (e.g., 8:30 am) of the number of children in each room) can ensure that the cook prepares the right amount of food.

Educators should also notify the cook if children have participated in cooking experiences, celebrations, or special food events during the day. These activities can significantly affect children's appetite and the amount of food required, helping to further reduce serving waste.

Ask for family input to find out what children enjoy eating at home and include some of these meals in the menu.

Menu planning

Careful menu planning, considering serving sizes for children can ensure that sufficient food is prepared for the children without preparing too much food.

Develop flexible menus that can be adapted to incorporate ingredients nearing their best-before or use-by date, while maintaining food safety requirements.

When new foods are introduced to children, introduce them in smaller quantities alongside familiar foods.

Check products in the pantry before menu planning and purchasing. Making careful choices in meal planning can avoid "out of date" scenarios.

Include a designated section on displayed menus (as required by regulations) to allow for minor menu modifications based on ingredient use-by dates. This can support greater flexibility while maintaining compliance.

Untouched leftover food can be given to staff or families. In some services this practice is done as a community building practice.

Meal preparation

Be mindful when preparing produce, to only waste what is absolutely necessary. For example, when preparing strawberries only remove the green part rather than cutting a portion of the strawberry.

Present food attractively (e.g., small quiches or cutting of fruit instead of whole fruit) to make it more appealing for children which may lead to less waste.

Storage approaches

Ensure correct storage of items. For example, freeze extra supplies of bread, keep herbs fresh by storing them in water, line airtight containers containing pre-cut vegetables or berries with paper towels.

Regional/remote services: Maintain frozen food supplies to reduce spoilage and improve menu flexibility.

Mealtime practices

It is important to note that children are still developing their taste preferences, and their appetite differs across days. Therefore, in the ECEC setting it is reasonable to expect that there will be plate waste, some days more than others. It is very important that children's autonomy and hunger and 'had enough' cues are being respected. Therefore, it is important not to ask children to finish their plates to save on food waste.

Creating a calm, unhurried mealtime environment supports children to recognise and respond to their hunger and 'had enough' cues and may also reduce plate waste by allowing children enough time to finish eating if they choose.

Family-style serving of meals where children can serve themselves what they think they will eat, can reduce plate waste.

Encourage children to take smaller portions and then come back for seconds or thirds if they are still hungry.

Pour small amounts of milk from a jug that children can top up to save on milk waste.

Repurposing unused food or leftovers

Rice, pasta and quinoa can be used in soups, salads and bakes.

Unused fruits and vegetables can be used to make baby purees, stock, muffins or dips.

Unused herbs can be used to flavour different dishes or make pesto.

Leftover cooked vegetables, grains, or herbs can be incorporated into soups, bakes or dips.

Leftover yoghurt can be used for smoothies/icy poles or 2-ingredient pizza dough.

Vegetables like cauliflower, broccoli and cabbage, with waste from the stems, can be used to make stock cubes. To do this, add garlic and herbs to vegetable leftovers, cook, blend and freeze in a shallow pan lined with parchment paper. Cut into cubes and store in an airtight container in the freezer for up to 3 months.

Some shop bought vegetables can be regrown once the tops have been cut and the base replanted e.g., spring onions, celery, herbs.

Milk that is about to go out of date can be used to make custard or white sauce for pasta dishes.

Child involvement

Involve children when planning meals at the service.

Involve children in reflecting on food waste by discussing which foods they enjoyed, and which foods were left uneaten. Discuss ways that similar foods can be prepared to ensure repeated exposure whilst children's taste preferences are developing. This information can help inform future menu planning while promoting children's agency and participation.

Lunchbox services

Encourage parents to pack enough food for their child but in appropriate child sized portions.

Encourage parents to involve children in lunchbox planning and packing.

Provide a fridge to store food appropriately or encourage lunchboxes to be packed with appropriate cold storage to last throughout the day.

EARLY YEARS LEARNING FRAMEWORK
Outcome 1, Outcome 2, Outcome 3, Outcome 4, Outcome 5

NATIONAL QUALITY STANDARD
QA1, QA6

When implementing these strategies services should ensure they continue to meet the relevant food safety, food allergy and regulatory requirements.

See Section 5, page 74

TABLE 7: *Strategies for reducing food waste*[26,28,31,42]

Strategies	Challenges/considerations	Potential solutions
Effective communication		
A key cause for serving waste (food prepared but not plated) is a lack of chef/cook being informed about the number of children in attendance on the day. Having a system in place (e.g., notifying the chef by a certain time (e.g., 8:30 am) of the number of children in each room) can ensure that the cook prepares the right amount of food.	Limited communication between educators and kitchen.	Service leader-supported systems in place for effective/streamlined cross-team collaboration and whole of service approach to sustainability.
Educators should also notify the cook if children have participated in cooking experiences, celebrations, or special food events during the day. These activities can significantly affect children's appetite and the amount of food required, helping to further reduce serving waste.	Staff workload.	Effective communication and collaboration can help reduce individual staff workload. For example, during food-based experiences, cooks and educators can work together so that foods prepared are incorporated into the experience, rather than the cook preparing a separate meal that is not used while the educator independently leads the activity. By working together, both staff members can save on time and workload.
Ask for family input to find out what children enjoy eating at home and include some of these meals in the menu.		
Menu planning		
Careful menu planning, considering serving sizes for children can ensure that sufficient food is prepared for the children without preparing too much food.	Lack of menu planning skills.	*See Menu and Meal Quality, Section 2, page 26*
	Young children's appetites and food preferences can vary from day to day, making it difficult to predict how much food to prepare.	*See Menu and Meal Quality, Section 5, page 49*
Develop flexible menus that can be adapted to incorporate ingredients nearing their best-before or use-by date, while maintaining food safety requirements.	Limited paid hours allocated to menu planning and on-the-day adjustments.	*See Menu and Meal Quality, Section 5, page 52*
When new foods are introduced to children, introduce them in smaller quantities alongside familiar foods.		
Check products in the pantry before menu planning and purchasing. Making careful choices in meal planning can avoid "out of date" scenarios.	Pantry and fridge management skills.	Training/support in food service operation skills, including pantry management.
Include a designated section on displayed menus (as required by regulations) to allow for minor menu modifications based on ingredient use-by dates. This can support greater flexibility while maintaining compliance.		

Strategies	Challenges/considerations	Potential solutions
Untouched leftover food can be given to staff or families. In some services this practice is done as a community building practice.		
Involving children in menu and meal planning and food waste discussions		
Involve children when planning meals at the service.		*See Menu and Meal Quality, Section 7, page 76* *See Case study, page 32 of this module*
Involve children in reflecting on food waste by discussing which foods they enjoyed, and which foods were left uneaten. Discuss ways that similar foods can be prepared to ensure repeated exposure whilst children's taste preferences are developing. This information can help inform future menu planning while promoting children's agency and participation.		
Storage approaches		
Ensure correct storage of items. For example, freeze extra supplies of bread, keep herbs fresh by storing them in water, line airtight containers containing pre-cut vegetables or berries with paper towels.	⚠ **For regional/remote services** Products may arrive with a shorter shelf life due to time travelling to service location.	Coordination with food suppliers may be needed.
⚠ **For regional/remote services** Maintain frozen food supplies to reduce spoilage and improve menu flexibility.	Remote services may experience power outages or delays in power restoration, increasing the risk of food spoilage.	Develop contingency plans for power interruptions, including consideration of backup power sources (e.g. generators) where appropriate. Monitor freezer temperatures and follow food safety guidance after outages.
⚠ **For regional/remote services** Prepare and preserve fresh produce when deliveries arrive by washing, cutting and freezing fruits and vegetables for later use.	Limited freezer space may limit this practice in regional/remote settings.	Coordination with food suppliers may be needed.
	Limited time for staff to prepare and preserve items.	Allocated dedicated time for kitchen staff to prepare and store produce as soon as deliveries arrive. This can save on the costs of food that would be wasted if spoiled.
Meal preparation		
Be mindful when preparing produce, to only waste what is absolutely necessary. For example, when preparing strawberries only remove the green part rather than cutting a portion of the strawberry.		

Strategies	Challenges/considerations	Potential solutions
Present food attractively (e.g., small quiches or cutting of fruit instead of whole fruit) to make it more appealing for children which may lead to less waste.		
Repurposing unused food or leftovers		
Rice, pasta and quinoa can be used in soups, salads and bakes.	Recipe/menu modification skills.	Effective commercial kitchen skills, including safe and effective use of unused foods can save on food costs to potentially offset cost additional paid staff time. *See Menu and Meal Quality, Section 5, page 50*
Unused fruits and vegetables can be used to make baby purees, stock, muffins or dips.	Limited paid hours allocated to menu planning and on-the-day adjustments.	*See Menu and Meal Quality, Section 5, page 52*
Unused herbs can be used to flavour different dishes or make pesto.		
Leftover cooked vegetables, grains, or herbs can be incorporated into soups, bakes or dips.		
Leftover yoghurt can be used for smoothies/icy poles or 2-ingredient pizza dough.		
Vegetables like cauliflower, broccoli and cabbage, with waste from the stems, can be used to make stock cubes. To do this, add garlic and herbs to vegetable leftovers, cook, blend and freeze in a shallow pan lined with parchment paper. Cut into cubes and store in an airtight container for up to 3 months.		
Some shop bought vegetables can be regrown once the tops have been cut and the base replanted e.g., spring onions, celery, herbs.	Limited space for growing vegetables.	Limited space does not have to be a barrier to gardening. Herbs, vegetables and other plants can be successfully grown in small pots, containers or on windowsills. *See Section 6, page 77*
Milk that is about to go out of date can be used to make custard or white sauce for pasta dishes.		

Strategies	Challenges/considerations	Potential solutions
Mealtime practices		
It is important to note that children are still developing their taste preferences, and their appetite differs across days. Therefore, in the ECEC setting it is reasonable to expect that there will be plate waste, some days more than others. It is very important that children's autonomy and hunger and 'had enough' cues are being respected. Therefore, it is important not to ask children to finish their plates to save on food waste.	Lack of knowledge/skills in responsive feeding practices.	*See Mealtime Environment and Practices, Section 2, page 20*
Creating a calm, unhurried mealtime environment supports children to recognise and respond to their hunger and 'had enough' cues and may also reduce plate waste by allowing children enough time to finish eating if they choose.		
Family-style serving of meals where children can serve themselves what they think they will eat, can reduce plate waste.		*See Case study, page 32 of this module*
Encourage children to take smaller portions and then come back for seconds or thirds if they are still hungry.		
Pour small amounts of milk from a jug that children can top up to save on milk waste		
Lunchbox services		
Encourage parents to pack enough food for their child but in appropriate child sized portions.	In lunchbox services, services have limited control over the types and quantities of food packed by families.	*See Staff and Family Engagement, Section 4, page 51*
Encourage parents to involve children in lunchbox planning and packing.		
Provide a fridge to store food appropriately or encourage lunchboxes to be packed with appropriate cold storage to last throughout the day.	This strategy may not be feasible in some settings.	

Strategies for reducing the environmental impact of food waste

The following strategies, together with common considerations, challenges and potential solutions, are designed to support practices that reduce the environmental impact of food waste once it has occurred.

Refer overpage for details on challenges/considerations and potential solutions.

Food waste management

For services with enough space for a compost set up, fruit and vegetable scraps can be added to the compost bin.

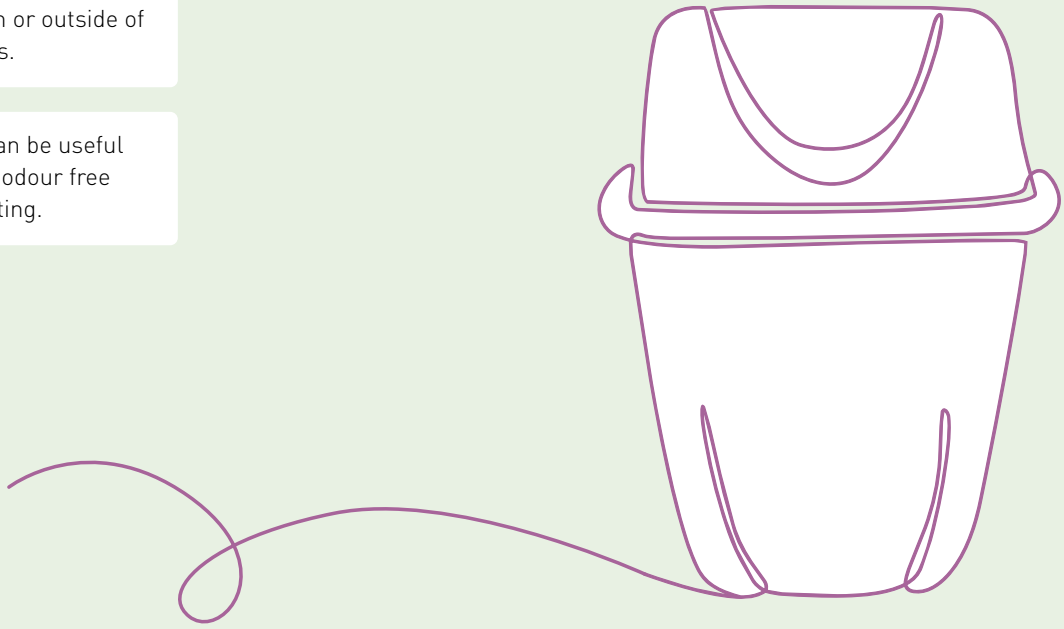
Separate food waste from other waste at the service. Set up separate small waste bins for food in the kitchen or outside of rooms.

Bokashi units can be useful for rodent and odour free composting.

Child involvement

Children can be encouraged to add their plate waste to dedicated food scrap buckets. This can form part of educational experiences where children can learn about and be actively involved in managing food waste in their service.

A worm farm can be useful both for managing food waste and as part of a curriculum experience for children. Children can be involved in turning kitchen scraps into fertiliser for the service veggie patch, garden, or potted herbs.



EARLY YEARS LEARNING FRAMEWORK
Outcome 2, Outcome 3, Outcome 4

NATIONAL QUALITY STANDARD
QA1, QA3

When implementing these strategies services should ensure they continue to meet the relevant food safety, food allergy and regulatory requirements.

See Section 5, page 74

TABLE 8: *Strategies for reducing the environmental impact of food waste*

Strategies	Challenges/considerations	Potential solutions
Food waste management		
For services with enough space for a compost set up, fruit and vegetable scraps can be added to the compost bin.	Limited space – some services may not have sufficient outdoor space to support composting systems or worm farms.	Partner with the local community garden/school/church/etc to see if they are able to take and compost the service's food waste – that way no large compost bins are needed on-site.
		Connect with local council food and organics collection service if available.
	No council support for garden organics – particularly in regional/remote areas.	If feasible, use a paid composting service to manage and compost food waste.
	Costs – establishing composting systems, purchasing bins, or accessing commercial collection services may involve additional costs.	Apply for grants, contact your local hardware store or garden centre and see if they can donate any supplies, or ask for donations from families.
Separate food waste from other waste at the service. Set up separate small waste bins for food in the kitchen or outside of rooms.	Staff time/workload – implementing and maintaining food waste management practices may place additional demands on educators and cooks who have competing responsibilities.	
Bokashi units can be useful for rodent and odour free composting.	Costs – Bokashi units come at an additional cost.	Apply for grants, ask for donations from families or run a fundraiser.
Child involvement		
Children can be encouraged to add their plate waste to dedicated food scrap buckets. This can form part of educational experiences where children can learn about and be actively involved in managing food waste in their service.		
A worm farm can be useful both for managing food waste and as part of a curriculum experience for children. Children can be involved in turning kitchen scraps into fertiliser for the service veggie patch, garden, or potted herbs.		*See Case study, page 61 of this module*

"I will find out eventually the day after if there was a lot of waste or not from what I prepared. The good thing about us is that we have a composting situation going on. So every food scrap we have from the kitchen and food scraps coming from morning tea or afternoon tea will be dumped in there and will be given back to the soil and the soil will give it back to us."

– Cook, Regional Service

"Another aspect that we might look at during the desktop review is if the services highlighted anything spectacular that they've been doing in that space.. Sustainability, Menu development, Parent input, Community input. Those are the kind of things that we look at from the Quality Improvement Plan."

– Authorised Officer, Western Australia

BRIDGING CASE STUDY

Reducing food waste starts with everyday decisions

SERVICE	One Tree Wickham Children's Service
SERVICE TYPE	Long day care
MEAL PROVISION MODEL	All meals provided on-site
BUSINESS MODEL	Private, not-for-profit
AGE RANGE	Birth to 5 years
NUMBER OF APPROVED PLACES	46
REMOTENESS AREA CLASSIFICATION	Remote

LOCATION

Wickham, WA



Problem statement

Food waste is a significant issue in ECEC services mostly due to uneaten meals when trying out new menus with children unfamiliar with new foods and texture. It can also be due to incorrect portion sizes, busy or distracting mealtime environment and excessive food preparation.

Background to managing food waste in the service

At One Tree Wickham, the Service Cook conducts several menu trials before introducing new meals to the regular menu. By the third trial, the cook has a clear understanding of how much food needs to be prepared and whether the meal is suitable for ongoing inclusion.

Educators provide practical feedback during this process – for example, noting when children find meat cuts difficult to chew and suggesting smaller cuts, or observing that the way fruit is cut can influence how easily different age groups are able to eat it.

How do you manage the food waste

The service manages food waste through a combination of safe storage practices, repurposing of suitable food items, and sustainable recycling initiatives.

- Daily untouched leftovers are portioned, labelled, and stored in the fridge for staff to access. This supports educators who may not have packed lunch.
- The cook uses safe, creative methods to transform suitable excess ingredients into different dishes. For example, excess yoghurt can be turned into 2 ingredient pizza dough or frozen yoghurt for afternoon tea, and excess vegetables get blended into a smooth, flavourful sauce that can be used for meals such as Mac and Cheese.
- Leftover fruits and other food offerings are reoffered throughout the day, provided they have been stored safely, kept covered, and checked before serving, ensuring children have ongoing access to nutritious options until late afternoon.
- Fruit scraps are sent to Kindy Room's Worm Farm. The worm farm produces worm juice, which is bottled using recycled sauce jars and offered to families for use in their home gardens.

Challenges and considerations and how these were overcome

- One of the main challenges during mealtimes in remote areas is managing flies, particularly in warmer weather. The team works proactively to minimise their presence by keeping food covered, maintaining clean eating spaces, and encouraging children to eat indoors where possible. These practices help reduce contamination risks, lower food waste, support safe food handling, and create a more comfortable mealtime environment for children and educators.
- Another challenge is that children often eat only small amounts because the scheduled mealtimes are very close together. To address this, educators have introduced progressive mealtimes, allowing children to eat when they are genuinely hungry rather than at a fixed time. This approach has supported hunger and 'had enough' cues, reduced pressure during meals, and helped children engage more positively with food.

CASE STUDY

Small changes making a big difference

Composting at a large scale to reduce waste and teach sustainability

SERVICE	Marjorie Mann Lawley Day Care Centre
SERVICE TYPE	Long day care
MEAL PROVISION MODEL	All meals provided on-site
BUSINESS MODEL	Private, not-for-profit
AGE RANGE	0–6 years
NUMBER OF APPROVED PLACES	58
REMOTENESS AREA CLASSIFICATION	Major cities

LOCATION

Mount Lawley, Perth, WA



Background

Marjorie Mann Lawley Day Care Centre has been running for over 50 years, is a private, not-for profit service, and has a philosophy inspired by the Reggio Emilia approach.

Sustainability is embedded in practice at Marjorie Mann, with children involved in activities such as recycling and composting as part of their routines every day. Reducing food waste is part of this process and forms part of helping children learn to care for the world around them.

What did you want to do?

- To reduce overall waste going to landfill.
  - To teach children about simple ways they can create a more sustainable world – "sometimes the smallest changes can make the biggest difference".
- To teach children about the lifecycle of food – food → scraps → compost → garden/farm → food.
- To support the local community garden where one of the educators volunteered.

What did you do?

First, composting started with a partnership with the local community garden. Over time the service realised that this was not an appropriate solution as:

- The service was creating more food waste than the community garden could handle.
- Educators had to bring the waste to the garden themselves, and this was not a sustainable solution.
- Next, another possibility arose that involved getting in contact with a rubbish company that specialised in composting. This was fee-for-service, and was paid from fees.

How does the company manage the food waste?

- First, the company comes to the service to do a consultation and discover the needs of the service.
- The company assists in setting up bins in the most effective way for the service to reduce landfill.
- The company collects food waste and composts it.
- The ECEC service can then buy back the compost if they need it for their gardens, etc.
  - The compost can also be used as a fundraiser. Families can pick up a bag of compost and take some home.

How does this link with the children?

- Intentional teaching around composting is included in programs to:
  - Help children learn about the cycle of food.
  - Show children how to manage food waste and compost bins.
  - Demonstrate the use of compost in the garden to help things grow.
- Learning about composting is embedded into everyday practice with the children.
  - This helps children build habits that they will take throughout their lives.
  - This also links with the service's philosophy to encourage children to be active citizens.
  - An example of embedded practice:
    - > A compost bin is included in each of the rooms at the service.
    - > Children are encouraged to scrape their own plates into the bin as part of their daily routine.
    - > Educators take the food waste to the outside bins
    - > The bins are collected each week by the rubbish company.
- Resources used to teach children about composting include:
  - Books.
  - Posters to help children use the correct bins.
  - Tabletop provocations:
    - > To encourage discussion amongst the children and educators.
    - > For children to engage in activities to practice sorting waste into the correct bins.
  - A dedicated sustainability section in the service that is a permanent fixture there.

Who manages all of this?

- One of the educators is the Sustainability Officer who manages composting.

What's next?

- The service maintains a small compost bin and worm farm at the service, as well as the bins from the rubbish company, for children to see the composting process up close.
- The staff at Marjorie Mann are working on a 'plant to plate' program:
  - Children will be able to grow their own food from seeds and seedlings, look after it, then harvest and eat it.
  - This idea came from the children.

The difference it has made

- Children at the service are able to recognise what waste goes in which bin.
- It has affected the educators who are now spreading their knowledge about composting and waste reduction in their community.
- Composting is included in the service's monthly newsletter, and has begun to be embedded practice at home with families as well.

Top tips

- Start by educating the educators about composting and sustainability.
  - This also helps to expand ideas.
- Embed sustainability education into everyday practice.
  - Ensure this is done before building partnerships – this helps the partnership to work successfully.
- Don't try to rush things when building partnerships
  - The idea has to evolve authentically to work well and be sustained over time.

CASE STUDY

Where do our food scraps go?

An on-site worm farm to learn about reducing waste and the cycles of nature

SERVICE	Montessori Minds Childcare
SERVICE TYPE	Long day care
MEAL PROVISION MODEL	All meals provided on-site
BUSINESS MODEL	Private, for-profit
AGE RANGE	1 to 6 years
NUMBER OF APPROVED PLACES	127
NUMBER OF STAFF	30-40
REMOTENESS AREA CLASSIFICATION	Major cities

LOCATION

Geelong, Victoria



Background

Montessori Minds Childcare is a relatively new service in Victoria, that has been in operation for around two and a half years. The centre serves a highly diverse community and plays an important role in education and support for the whole community.

The building was designed with intention, with the aim of creating a learning environment where sustainability, food education, cultural inclusion, and community engagement were embedded into daily practice rather than treated as standalone programs or events.

The Montessori philosophy underpins all learning experiences, emphasising real world connections, practical life skills, observation, and respect for living things. This approach creates an inclusive environment where learning flows between the centre, families, and the wider community.

The worm farm at the centre is one tool they use to teach children about sustainability and how to care for the environment they are part of.

What did you want to do?

- They wanted to have education about food systems, sustainability and how to care for the environment embedded into everyday practice at the service.
  - This also included helping children develop care and understanding for the living things around them, reducing waste, and making meaningful connections between food, people and the environment.
- They also wanted children to be aware of the life cycles all around them every day, and how they could be part of that too through composting food scraps.

What did you do?

- As part of the planning for the Montessori Minds building, space was allocated for vegetable patches, herb gardens, fruit trees and a worm farm.
  - Garden patches were located in spaces with ample light and ventilation to ensure good crops.
- Maintaining these has become embedded into the daily program.
  - Children participate in planting, watering, harvesting, composting and worm farming, learning about lifecycles, food origins and waste reduction.
- Children also collect and compost their food scraps throughout the day, helping them to learn how the cycle works – food → scraps → compost/worm farm → garden soil → planting → food!
- The worm juice is used on the centre's garden, and extra is given to families at the service to use on their own gardens at home.

The difference it has made

- Children have learned to value where food comes from, how to use resources responsibly, and how their everyday actions can support a healthier and more sustainable world.
- The children are developing a deep, practical understanding of food systems, sustainability and environmental responsibility.
- Community collaborations have been built as they now collect coffee grounds from neighbouring cafés to reuse in garden beds.

Top tips

- Make sustainability a part of the service's vision, then embed it into everyday routines to create long-term habits that support that vision.
- Use real-world activities and experiences wherever possible to create rich learning experiences for children.
  - This includes incursions and excursions out into the community, and community collaboration.

Through real-world experiences, children at Montessori Minds are learning all about sustainability and environmental responsibility and becoming the sustainability superstars of the future.