SECTION 6

Gardens in ECEC Services and Settings



Gardens in ECEC services and settings

Gardens in ECEC settings provide opportunities for children to learn about and engage with environmental sustainability through play, exploration, and connection with their natural environment.

Purpose of a garden

Depending on their purpose, gardens may also supplement food provision. Gardens are a broad and cross-cutting topic that can support multiple areas of the NQS and the EYLF. They can also be linked to a range of principles, learning outcomes, curriculum areas, and cultural perspectives, including:

Gardens for learning

On-site gardens can provide rich, hands-on opportunities for children to explore plants, local and cultural foods, and the natural world through play and inquiry. Gardening experiences can support learning across multiple areas while fostering curiosity, environmental awareness, social collaboration, and problem-solving.[1,50-52]

See Food Education, Section 3, page 63

See Food Education, Section 4, page 91

Gardens for aesthetics

Gardens can enhance the visual appeal of the outdoor environment, creating inviting and calming spaces for children and educators. Features such as flowers and native species can encourage appreciation of nature and contribute to a positive learning environment (Australian Children's Education & Care Quality Authority.[52,54]

Gardens for growing and sharing

Gardens can provide young children with hands-on opportunities to participate in planting, caring for, harvesting, and preparing fresh produce. These rich experiences can help children understand where food comes from, seasonal food, and the value of sharing food with others.[1,50,52,53]

Gardens for growing and sharing

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Gardens for consuming and supplementing produce

Where possible and appropriate, gardens can supplement food provision with small amounts of fresh produces such as herbs, vegetables, and some fruits.[52]

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

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Reflective questions

Educators

- *How do we draw on Aboriginal and Torres Strait Islander perspectives on plants and food to shape our garden as an ongoing partnership?*

The role of gardens in supporting learning, sustainability, food procurement and meal planning

Learning and development

On-site gardens provide valuable opportunities to embed food-based, cultural, and place-based learning into everyday practice. The Food Education module outlines play-based approaches that can be incorporated into intentional planning, daily routines, child-initiated play and mealtimes.

See Food Education, Section 1, page 13

Sustainability

Gardens can provide children meaningful opportunities to engage with experiences such as growing edible plants, composting, conserving water, reducing food waste, and supporting biodiversity. These experiences can foster environmental stewardship and an understanding of responsible resource use, aligning with the Guiding Principles outlined in this section.[1,3]

Meal planning and procurement

Whilst it is unlikely that an on-site garden in an ECEC service will provide a large proportion of food that can be prepared for children, it can contribute to more sustainable food procurement by providing small quantities of fresh herbs, vegetables and fruit for use in cooking experiences or meals. The Food Education module outlines learning experiences that include planting and harvesting herbs and vegetables to use in recipes.

See Food Education, Section 3, page 66

See Case study, page 72 of this module

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

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What are the different sizes of gardens

While the term 'gardens' is used in this guide, this can range from a small potted plant to a large sized garden. The information below groups different types of gardens to provide services with a starting point for considering how gardens may be incorporated into their setting or to support the further development of existing garden initiatives.

Windowsill/potted plants

Potted plant gardens provide a simple and accessible starting point for services with limited outdoor space. This can include herbs (e.g., basil, parsley, mint, rosemary), leafy greens (e.g., lettuce, spring onions), small fruiting plants (e.g., strawberries, cherry tomatoes).

Plot (small garden plot for discovery and exploration)

This can include a garden plot in a small space (1–2 m^2) that can include herbs, leafy greens, vegetables (e.g. cucumbers, zucchini and capsicum depending on climate), and bush foods depending on climate (e.g. finger lime, native thyme).

Small desktop hydroponic (no soil) gardens

These systems can grow plants in water enriched with nutrients rather than soil and can be used indoors throughout the year. These can include herbs (e.g., parsley, basil, mint) and leafy greens (e.g., lettuce, spinach).

Large productive garden for supply to service

A large productive garden would provide sufficient space to grow a diverse range of vegetables, herbs, and fruit trees to enable regular harvesting for cooking experiences, and where appropriate to supplement meals within the service.

Large scale hydroponic (no soil) systems for mass production

This can include vertical gardens with herbs (e.g., basil, parsley, coriander), leafy greens (lettuce, spinach, and kale), and vegetables/fruits (e.g., tomatoes, cucumbers, and strawberries). Note: these generally require upfront investment and ongoing maintenance, limiting feasibility, particularly for services in remote and very remote locations.

Preparing and planning for gardens

Preparing and planning for gardens requires careful consideration to ensure that the garden is safe, practical, inclusive, and aligned with the service philosophy. This section will outline key considerations for approved providers, nominated supervisors or service leaders.

Regulatory considerations

Specific requirements as outlined in the Education and Care Services National Regulations 2012 are relevant and must be considered when preparing and planning a garden. These include:

- Regulation 108. Space Requirements – outdoor space.
- Regulation 113. Outdoor space – natural environment.
- Regulation 114. Outdoor space – shade.

Structural, safety and supervision standards

- **Adequate supervision:** Supervision arrangements should be responsive to the activity, environment and identified risks.
- **Climbing controls:** Design features that discourage climbing on garden structures to reduce the risk of falls or injuries.
- **Water and drainage safety:** Ensuring prevention of the accumulation of standing water to minimise slip and drowning risks and ensure safe access and use. Ensuring that water tanks and buckets are securely covered and inaccessible to children.
- **Fence clearances, tree heights and fall zones:** To ensure boundary safety, minimise climbing and fall risk, and support safe supervision and use of the garden space.
- **Plant selection:** Cross referencing to regional flora databases to avoid toxic and prohibited plants.
- **Provision of PPE for staff and children** accessing areas as per risk identification.

Further resources can be found on pages 79 and 86.

Garden policy

- Risk assessments and safety considerations must be developed.
- Service leaders must ensure that educators, staff, parents/guardians, volunteers, students and others at the service have access to relevant service policies, procedures and risk assessments, and understand and comply with safety requirements.

Curriculum and inclusion considerations

Ensuring that experiences in the edible garden are based on the educational program and are inclusive of all children regardless of their abilities, additional needs, or medical conditions.

Safety

- Ensuring that children are adequately supervised at all times – this may include additional staffing on garden access days, supervision point design considerations when planning the position and scale of the garden.
- Ensuring that a risk assessment is carried out for any experience in the garden and consideration of risks included below.
- If visiting a garden as part of an excursion, services must comply with relevant excursion requirements, including conducting a risk assessment in accordance with Regulation 101 of the Education and Care Services National Regulations 2012.
- Any food produced in the garden for centre consumption must have food safety compliance considerations.

Staff involvement, engagement and communication

- Staff must ensure that all policies, risk assessments and safety considerations are read, understood and followed at all times.
- Man-made gardens, as opposed to natural wilderness can take time to maintain.
  - Maintenance includes preparing soil, planting seedlings, watering produce, harvesting, propagating, collecting seed, maintaining soil quality and collecting and removing leaf debris.
  - Consideration must be given to rostering time to staff to maintain the gardens and:
    - Ensure the gardens are maintained adequately.
    - Ensure the gardens form part of the centre's philosophy and become embedded in practice and procedures.
- Community engagement:
  - Volunteers must have read and understood all policies and safety considerations before being involved in the garden.
  - All interaction with volunteers would be tied to other safety considerations e.g. Working With Children Check, incursion policy consideration for visiting speakers/garden experts.

Hydroponic gardening in ECEC

Cost

- Hydroponic set ups are a cost and space efficient way of producing a large amount of food in a small space.

Set-up

- Set-ups are designed to be indoors and can provide the opportunity for "grow rooms' in underutilised areas and/or space saving options such as grow walls and windowsills, offering flexibility and broader educational options for children.

Yield

- Plant growth is often faster as environmental elements (sunlight, water, weather, climate) can be controlled to optimise growth and production.
- Offering year-round opportunities alleviates the need for seasonal choices and creates the opportunity for four times more produce per square meterage than traditional gardens.

Sustainability

- In sustainability terms, hydroponic growth can use up to 95% less water than traditional growth methods, which is a consideration for regional and remote areas with limited access to water.

Risk

- Risk factors such as insects/pests are controlled due to the indoor environment.
- Risks of soil contamination or fertiliser risks are also avoided.

Training

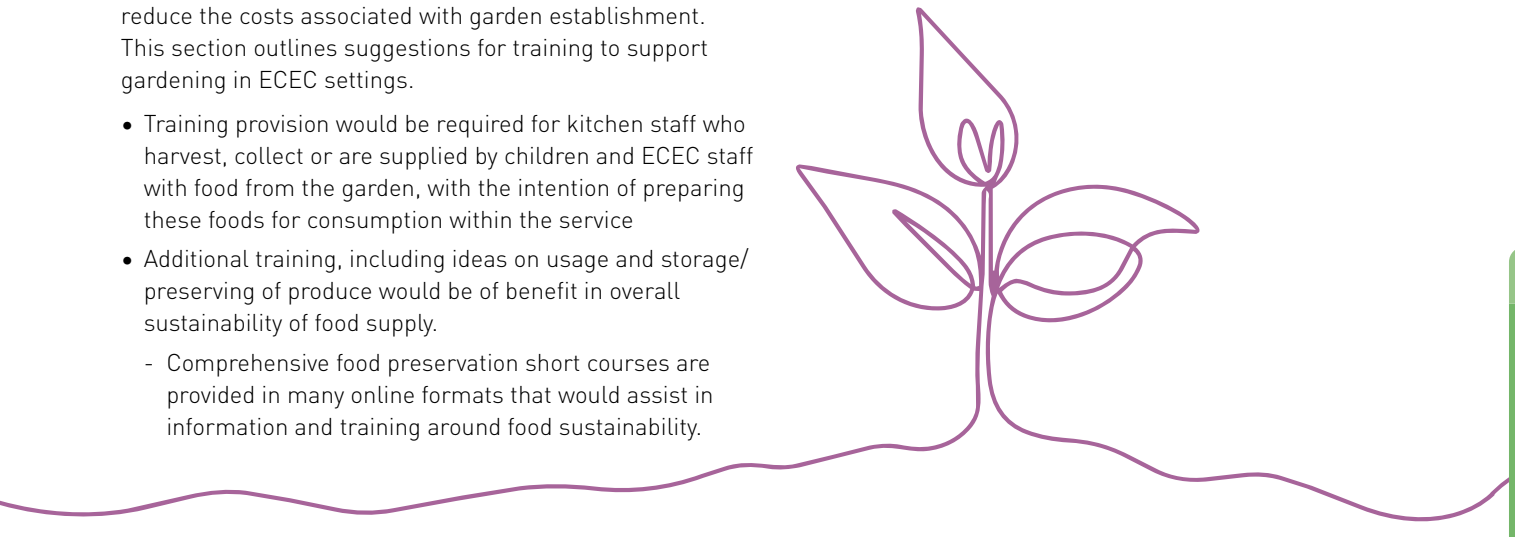
Establishing a garden may require a consideration of a range of practical elements including planning, staff training, ongoing maintenance, and available resources. While some services may be able to establish gardens using existing resources, grants and other funding opportunities may help reduce the costs associated with garden establishment. This section outlines suggestions for training to support gardening in ECEC settings.

- Training provision would be required for kitchen staff who harvest, collect or are supplied by children and ECEC staff with food from the garden, with the intention of preparing these foods for consumption within the service
- Additional training, including ideas on usage and storage/ preserving of produce would be of benefit in overall sustainability of food supply.
  - Comprehensive food preservation short courses are provided in many online formats that would assist in information and training around food sustainability.
- Garden maintenance and growing skills
  - Training would be of benefit if large scale provision for service was the intention of the garden, rather than quick taste edible gardens.
- Costs for training and garden set up could ensure long term sustainability in food production and may lead to cost saving for services.

ACECQA risk assessment resources

- Australian Children's Education and Care Quality Authority. (2023) Risk assessment and management tool
- Australian Children's Education and Care Quality Authority. (2026) Risk Assessment and Management – Learning Experience Plan (Educators/Teachers)
- Australian Children's Education and Care Quality Authority. (2026) Risk Assessment and Management – Indoor and Outdoor Learning Environment Safety Checklist

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QA1, QA2, QA3, QA4, QA6, QA7





VIGNETTE

A day in the wilds

Learning and cultural connection in the garden

The Wilds is a nature-based service where children explore their natural surroundings within a large block set amongst an urban backdrop.

Once through the garden gates, children are transported to a lush, rich orchard containing a range of native and introduced edible fruit trees. Figs, apricots, bush finger limes, midyim berries, pigface, lilly pilly, bottlebrush trees, desert quandong, apples, oranges, rosellas and thornless berry bushes all grow throughout the sprawling block, alongside an undergrowth of peppermint, chamomile, parsley, lemon balm and lamb's tongue.

Vegetable beds line the inside of the garden, interspersed with outdoor work tables where children and adults tend to planting and harvesting and share mealtimes within the garden space. Child-sized garden implements are easily accessible, allowing children to choose if, when and how they would like to explore and work in the garden.

The babies lie happily on rugs next to educators under the fruit trees, watching the movement of the leaves, observing birds and butterflies, and smelling the rich soil and occasional wafts of herbs.

The toddlers are busy exploring the garden, which is visually signed. Educators meaningfully engage with the children in the garden, asking them to name plants and colours and encouraging them to identify "mini beasts" – the bugs, snails, worms and other little creatures that make up the ecology of the garden. Another educator sits a little further away with a collection of storybooks about the mini beasts commonly found in gardens and reads aloud to the children.

The children actively engage with educators in harvesting apples and oranges. When asked what the oranges are for, one child explains that they are going to juice them and excitedly shares what he remembers about the process.

Another child gathers the juicing machine while an educator carefully cuts the oranges in half, discussing knife safety and explaining the process to the children.

The boy is ready to juice the oranges and demonstrates his dexterity, explaining that he is going to "use all of his muscles". He squeezes as much juice as he can from the oranges and measures it into a bowl.

Three girls are busy collecting the seeds from the discarded orange halves. One girl shows her friend the seeds and explains that she plans to take them home to germinate and grow her own orange tree.

The Aboriginal Liaison Officer who the children refer to as "Aunty", walks past with a small cohort of toddlers on her way to the yarning circle, a space comprising logs for seats. Seeing the children juicing oranges, she points to the bottlebrush tree and shares that, traditionally, the flowers were used to make a sweet drink. She shares that she collected the flowers as a child with her nana.

The children become excited and ask questions about the bottlebrush flowers and Aunty's experiences.

Reflection

The above scenario highlights interactive experiences that can foster cultural connection in the garden. Aunty's sharing of her childhood experiences and knowledge about the bottlebrush engages children in conversations about culture and local First Nations knowledge. Together, these experiences demonstrate how gardens can provide a rich environment for interconnected learning about food, nature, culture and sustainability.

This illustrative vignette was written by a service leader whose Aboriginal Heritage, together with her Croatian background and childhood experiences of self-sufficiency and gardening while living on a small island in what was then Yugoslavia, have shaped her passion for fostering cultural connection, relationships with food and sustainable food practices through ECEC gardens.

When engaging children in garden-based experiences it is important to adhere to safety and food allergy requirements. *See Section 6, page 84*

Food safety awareness, assessment, and management

The establishment and ongoing management of gardens in ECEC settings should include consideration of potential health and safety risks, with appropriate measures in place to identify, assess and manage these risks.

Services should ensure gardens are planned and managed in accordance with relevant legislation and local council by-laws. Where gardens are used to grow food for consumption, produce should be selected and planned to ensure it undergoes an appropriate cooking process and is managed in accordance with the service's Food Safety Program. The following guidance outlines key considerations for safety awareness, assessment, and management.

Food safety considerations

- Ensure soil safety. Soil must be free of heavy metals and chemicals so make sure the soil is of good quality.
- Test your soil before use if not utilising store-bought certified soils.
- Use only compost and soil mix that is AS 4454 certified and follow the safety instructions on the product when handling.
  - Typical safety instructions will include: avoid breathing dust/mists, wear particulate mask if dusty, wear gloves, keep product moist when handling, wash hands after handling.
- Select plants that are appropriate for children's use and the local environment, taking into account potential health and safety risks (e.g., toxic, or allergenic species). Produce that will be cooked is always preferred over ready to eat.
- Consider seed distribution and possible impacts/ biosecurity in surrounding areas when gardening in regional or remote areas, or in wilderness areas.
- If not using scheme water for irrigation, ensure the water source is free from pathogens.
- Ensure appropriate drainage when planning garden set up to avoid stagnation of water in pooling areas and associated risks.
- Use of chemicals
  - Aim to be chemical free or have personnel formally trained in chemical application and a formal chemical treatment record system.
- Do not use any raw animal manure. It is not possible to completely remove bacteria and viruses on vegetables via washing.
- Prevent intrusion of animals (domestic/wild) and non-edible plants/weeds into the food growing area.
- Clean off as much dirt as possible whilst still in the garden and place produce into clean sanitised containers.
- Make sure that any produce brought into the kitchen does not cause cross contamination issues; ensure they are washed before consumption in separate sink/tub to raw meats and store separately to other produce.

Hygiene and disease prevention

- Ensure strict adherence to handwashing practices when playing in or tending to the garden.
- Prevent Tetanus
  - Ensure that children and staff are up to date on immunisations – this bacterial infection resides in the soil and can enter through cuts and scrapes in the skin.
- Use of Personal Protective Equipment (PPE)
  - Use child size gloves for children to prevent cuts/grazes and minimise contact with soil borne bacteria.
  - Use adult sized PPE for staff and volunteers.
- Consider the ages and developmental stages of children accessing the garden
  - Children under 2 have increased risk of choking/ ingestion due to hand to mouth developmental exploration.

Allergy management

The following would need to be addressed in a Risk Assessment with harm minimisation as a priority before allowing children into the garden:

- Follow the relevant Compliance and Regulations *See Section 6, page 78*
- Be aware of risks around bites and stings from insects.
- Be aware of the possibility of allergies to plants and insect bites.

Food preparation and cooking experiences

Food preparation and cooking experiences may involve both food safety requirements and ECEC health, safety and supervision considerations. Services should identify the requirements relevant to the food being prepared, the nature of children's participation and any individual health or medical needs.

Dealing with kitchen waste sustainably – including risk considerations

Plate waste is a significant issue in services – having a compost area in the garden section of a service is a way of sustainably dealing with plant waste products that occur during food preparation and serving.

Composting waste materials

Compost is the accumulation of degrading food scraps, plants, and other organic matter. Composting is a fun, educational way of teaching children the process of decomposition, waste, garden management and cycles of growth (compost is the end!).

Risk considerations

- Compost piles close to kitchens/gardens hold risk considerations such as attraction for vermin (rodents and snakes).
- Compost piles can generate significant heat and, if poorly managed, pose a risk of spontaneous combustion.
  - Implement temperature control measures, including regular temperature monitoring and record keeping.
  - Ensure adequate aeration of compost piles to prevent excessive heat build-up.
  - Compost temperatures can exceed 70°C, creating a risk of burns from direct contact or exposure to steam.[55]
  - Restrict children's access to active compost piles and ensure appropriate supervision and safety measures are in place.
- Diseases can be caused by pathogens in soil – for example, histoplasmosis is caused by bird or animal droppings and can be contracted by handling soils which contains droppings.

Risks can be reduced by:

- Using the correct PPE
- Correctly positioning the compost pile
- Ensuring staff awareness
- Correct hygiene techniques.

Worms to support composting in services

Worm farms offer a sustainable way to turn waste into compost (nutrient-rich soil amendment) and worm tea (a nutrient-rich liquid fertiliser), reducing the costs of disposing of waste, purchasing fertiliser for service gardens, and improving soil quality and garden productivity. Worm farms can be contained in easy-to-use compartmentalised units sourced from local garden supply stores.

Children can observe the composting cycle and learn about animal welfare through this process.

Risks and considerations for worm farms

- Hygiene considerations – the possibility of pathogen exposure in decomposing waste.
- Physical risks such as slipping on worm leachate (worm tea).
- Allergic reactions to insects or moulds that may occur at the site as part of the decomposition process.
- Poorly managed farms can serve as an attractant for vermin (rats, mice, slugs) that carry further risk.
- Neglect of the farm can result in foul odour and a putrid anaerobic environment that can kill the worms.
  - The wrong types of food can kill the worms.
- Extreme heat can kill the worms.
  - Underground worm farms can alleviate heat stress and reduce smells and attractants for vermin.
    - These can be sourced from garden suppliers.
    - Please note, however, that underground worm farms may reduce the viewing of the process for children.
- Hygiene practices such as washing hands after touching the worms or the worm farms, and wearing gloves, reduce risk.

Many of the controls described in this section relate to environmental health and food safety requirements, particularly where food is grown, handled, prepared or consumed. These requirements operate alongside ECEC obligations relating to children's health, safety, supervision and the management of hazards within the education and care environment.

EARLY YEARS LEARNING FRAMEWORK	NATIONAL QUALITY STANDARD
Outcome 2, Outcome 3, Outcome 4	QA1, QA2, QA3, QA4, QA6, QA7

Planning for gardens

Planning for gardens used for learning (observation and tasting) edible gardens provide countless opportunities for children.

Contact with the outdoors is often limited for many children in modern society, and the vital experience of using the outdoors and being comfortable in nature is being lost. Especially so is the correlation children have between the foods served to them from their kitchen, where that food came from and how it got to them. Educational programs and gardens teach how a plant goes from a seed to a plate.

Incorporating a garden in an ECEC setting can enrich children's experiences and connect them with the complexities of natural ecosystems. The majority of children live in urban settings that include high density living, and have limited experiences in nature. A garden can provide a bridge for children into the natural world with benefits to wellbeing and enjoyment of the natural space that a garden can provide.

Personal experience and observation of nature are building blocks for program enrichment. Gardens ground children in growth and decay, predator-prey relations, pollination, carbon cycles, soil morphology, and microbial life. In the garden children can also experience and observe seasonal cycles, the impacts of weather, growth, insects, local wildlife, the place of humans in nature, and connection to Country. Gardens bring community together and allow children to explore human interaction with the natural world.

ACECQA resource on gardens

Australian Children's Education and Care Quality Authority. (2021) Growing and Gardening

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

NATIONAL QUALITY STANDARD
QA1, QA3, QA4, QA6

Questions to consider when thinking about setting up an edible garden

- **Space – where will the garden be and what size?**
- **Consider the position – partial shade or sunny area would work best**
- **Which vegetables, fruits and herbs would your service like to grow and eat?**
  Consider discussing this with the children who can help to decide on plants based on an investigation into seasonality. Also consider the risks outlined in this section
- **Who will be the champions (who will look after the garden or facilitate setting up the garden)?**
- **Can your service apply for grants to fund the garden?**
- **Can local shops donate seedlings?**
- **Could parents support the project?**
- **How will you ensure the sustainment of the garden in the long term (e.g., if staff members or parents leave the service)?**
- **How will gardening be embedded into food education?**

Risk awareness, common risk factors and safety

Risk awareness

This section aims to provide support and guidance with respect to risk awareness in relation to gardening and composting. For information on risk assessment and management, please see the ACECQA website.

What is meant by risk awareness, risk assessment, and risk management?

For the purpose of the Best Practice Guide, the following definitions are used:

- **Risk awareness:** Knowledge on the risks and hazards that can cause harm to children, staff, or families.
- **Risk assessment:** Identify potential hazards in association with an on-site garden, educational experiences in the garden, and worm farm/composting services.
- **Risk management:** Apply practices that reduces risk and avoids exposure to hazards.

Table 11 outlines key considerations for planning, establishing, and managing an on-site garden, compost system, or worm farm within your service.

TABLE 11: *Risk awareness key considerations*

Risk Awareness	Additional points
⚠ **Risk factors** Risk differs based on various factors relevant to each service, including the size and type of garden in each service	**Space:** Location, size, and layout of the garden, including hazard reduction and safe storage of gardening equipment and materials. **Harm to children and educators:** Potential physical injury from gardening equipment, tools, poisonous or toxic plants, and exposure to environmental hazards. **Allergy:** Plants, foods, insects, and animals in the garden that may trigger allergic or anaphylactic reactions in children, service staff, or visitors. **Food safety:** Safe growing, harvesting, handling and consumption of edible plants, including consideration of soil quality, animal contamination, and hand hygiene.
⚠ **Risk levels** Consider the risk level of a planned garden, composting system, and related experiences – modify the plan to reduce risk and potential harm to children, service staff, and visitors.	Risk levels can be defined as follows: **Minor risk:** Unlikely to cause long term problems.[56] The chance of occurrence is unlikely, and the potential impact is low.[56,57] It can be handled through routine maintenance or normal supervision. **Moderate risk:** Could possibly or be likely to occur, with a moderate to significant impact.[57] These risks require planned mitigation because they could lead to noticeable injuries or minor medical attention.[56,57] **Significant risk:** If it occurs, it can carry severe consequences, such as serious injury, long term harm, or death.[56,57] Will require thorough planning and close supervision by staff.[56] Different elements related to gardening can impact the risk level of a risk factor. For example: **Risk factor: Allergy** Risk Level: **Minor** Contact with certain plants may trigger or exacerbate mild skin allergies or irritation. **Risk factor: Food safety** Risk level: **Moderate** Ingestion of toxic plants or chemicals used in gardening. **Risk factor: Allergy** Risk level: **Significant** Insect stings or bites from allergen-producing insects that may result in anaphylaxis. Risk level is dependent on how well potential hazards are managed throughout the garden's design, operation, and maintenance. For example, good hygiene practices, appropriate growing methods, safe use of garden inputs, and careful selection and handling of plants are important to minimise risks and ensure the garden remains a safe learning environment for children.

Common risk factors

Table 12 below outlines common risk factors to consider when planning, establishing and maintaining gardens in ECEC settings.

TABLE 12: *Common risk factors*

SPACE	
Water Hazards	Drowning or water-related injuries from ponds, water features, or water-filled containers (e.g. water catchments or buckets).
Tools and equipment	Trips, cuts, puncture injuries, or inappropriate use of tools as weapons.
Fertilisers and garden products	Accidental ingestion or inhalation of fertilisers or other garden products.
Garden layout	Minimise trip hazards and allow safe supervision.
HARM TO CHILDREN, SERVICE STAFF, AND VISITORS	
Pathogens in soil	Harmful pathogens present in soil causing infections on open wounds, when inhaled, or ingested. Soils can become contaminated with pathogens from inadequate composting, contamination by birds/animals/pets that have access to the garden, or application of untreated manure.
Insects and spiders	Bites and stings.
Reptiles	Bites from snakes or lizards.
Rodents	Contamination from faeces and urine, bites.
Toxic ornamental plants	Some ornamental plants (e.g. oleander and some lilies) are highly toxic if ingested
Chemicals	Exposure to chemicals used to treat pests and weeds.
FOOD SAFETY	
Poisonous plants and weeds	Some plants (e.g. oleander, thornapple, nightshades, fox gloves, etc.) are highly toxic if ingested. The garden can become contaminated by seeds/creeping plants.
Chemicals used for pests, weeds, fungus	Exposure to elevated levels of chemicals caused by wrong chemical use, over-application, insufficient withholding period, accidental application, spills, untrained staff, and poor chemical use record keeping.
Pathogens in "home-made" compost	Pathogens can survive and persist in compost, particularly when the composting process is not adequately managed to achieve and maintain temperatures sufficient to inactivate pathogens throughout the entire compost pile.
Pathogens in irrigation water	When not using potable water from reticulated schemes, harmful pathogens can be present in the water used for the irrigation of food.
Contaminants in soil	Residual pesticides, chemicals, heavy metals, being absorbed by the plants being grown for food.
ALLERGY	
Bites and stings	Anaphylaxis to bites and stings may occur in staff and children with known allergies and also may present for the first time.
Plants	Plants may cause allergic skin reactions or irritation.
Food grown in the garden	Children may be allergic to foods grown in the garden – it is possible to be allergic to any food including fruits and vegetables.
Mulch	Mulches used for gardens can contain food allergens (such as peanut shells) and mould allergens.

ACECQA risk assessment resources

- Australian Children's Education and Care Quality Authority. (2023) Risk assessment and management tool
- Australian Children's Education and Care Quality Authority. (2026) Risk Assessment and Management – Learning Experience Plan (Educators/Teachers)
- Australian Children's Education and Care Quality Authority. (2026) Risk Assessment and Management – Indoor and Outdoor Learning Environment Safety Checklist

Risk management

Potential risks associated with ECEC gardens can be minimised through appropriate planning, supervision, and ongoing management. Services should undertake site-specific risk assessments when establishing and maintaining gardens, taking into account the garden's purpose, design, location, local environmental conditions, and the ages and developmental capabilities of the children using the space. Some strategies to support risk management in ECEC gardens are outlined below:

- **Use only AS 4454 certified products –** This ensures the compost/soil mix has been treated and processed to reduce the concentrations of harmful microorganisms.
- **Do not use chemicals** without proper skills/knowledge and record keeping systems being in place.
- **Mulch –** If possible, source mulches that do not contain allergens and store in a dry place to minimise the growth of moulds.
- **Education/training of children and staff –** Provide developmentally appropriate education for children and staff training on safe gardening practices, hygiene, and identifying potential hazards.
- **Garden access –** Consider the ages and developmental stages of children when designing and using garden spaces. Some areas of the garden may need to be restricted or inaccessible to children, particularly where hazards are present or during maintenance activities. Ensure access is managed appropriately and children are supervised according to their age and abilities.
- **Deterring animals –** Reduce contamination from domestic and wild animals by using appropriate deterrents, such as fencing, covering garden beds when not in use (particularly overnight), netting where appropriate, or visual deterrents (e.g. scarecrows). Regularly inspect the garden for signs of animal activity, including faeces, before children enter or produce is harvested.
- **Deterring insects –** When purchasing plants, consider those less likely to attract bees and wasps (such as non-flowering plants).
- **Practising good hygiene –** Wash hands thoroughly with soap and water after handling soil or produce, or wear gloves when working in the garden. Wash produce thoroughly before consumption.
- **Teaching safe use of tools –** Ensure children use age-appropriate gardening tools under close supervision and are taught how to use and store them safely.
- **Removing, covering, or fencing water catchment areas –** Cover or securely fence water storage and catchment areas to reduce drowning risks and other safety hazards.
- **Food Allergy –** Talk to families about potential allergies, and if new foods are being introduced. When growing wheat indoors on cotton wool, ensure children with a known wheat allergy do not handle the wheat grains (seeds).

Ensuring your gardens adhere to regulations and standards

By ensuring that your service follows relevant regulations and standards, gardening can be carried out safely for all children and staff.

- **Regulation 108.** Space Requirements – outdoor space
- **Regulation 113.** Outdoor space – natural environment
- **Regulation 114.** Outdoor space – shade

Useful resources

- Fresh Produce Safety Centre. (2025) Quick Guides for Fresh Produce Safety

NATIONAL QUALITY STANDARD
QA2, QA4