

NURSERY PAPERS

APRIL
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EcoHort

Establishing your environmental credentials

INTRODUCTION

Greenlife businesses must prioritise sustainability for long-term success.

Post-pandemic, sustainability has become one of business' top investment priorities, on par with maintaining a strong financial position and staffing.

By improving sustainability, you can better attract and retain staff, build brand reputation and customer demand, find new opportunities and emerging markets – ultimately increasing your productivity to gain a competitive advantage.

BACKGROUND

The Australian Plant Production Standard (APPS) (nurseryproductionfms.com.au) is the overarching framework for the three Australian nursery industry's best management practice (BMP) programs.

Sustainability is integral to the APPS programs, and EcoHort certification is the gold-standard for greenlife business sustainability, emphasising sound environmental practices, including using resources sustainably.

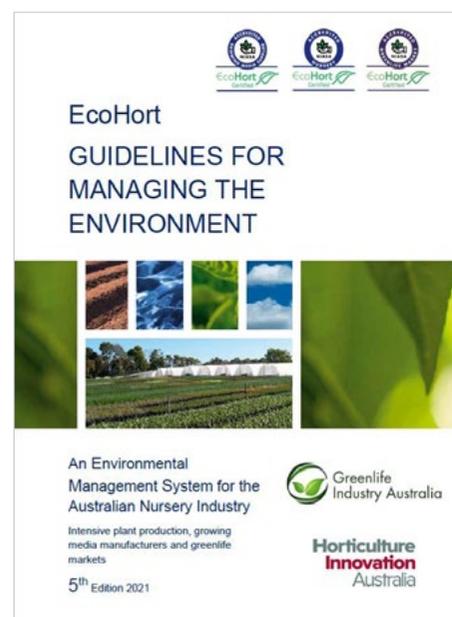
What sets EcoHort apart?

The EcoHort program contains target values for environmental performance. These targets have been determined through years of levy-funded research and development, and they consider federal and state environmental acts. This provides you with expert guidance for monitoring and improving your business management and environmental performance.

biosecurity measures to meet this obligation. Effective monitoring of plants for pests and diseases is also important for meeting customer expectations of high-health, quality plant products.

Where to start

A great starting point is to obtain the latest edition of the EcoHort guidelines at: nurseryproductionfms.com.au/ecohort-certification



This document helps you understand environmental risk areas. For practical implementation, it includes:

- a risk assessment checklist
- an action plan.

Our recommendation

Using the checklist, conduct a site walk-through with key personnel to identify:

- what the business does well
- areas for improvement.

This activity:

- builds pride in achievements
- underpins improvements and remedial actions
- facilitates a 'whole of business' approach to environmental risk management.



THREE WAYS TO GET BUY IN

1. Address issues as a team

Include employees from the beginning of your sustainability journey so they understand what you're trying to achieve – and how you're planning to do it. Involving them in sustainability goal-setting promotes ownership and accountability.

2. Establish a company environmental policy

An environmental policy offers many advantages, from meeting regulations to improving cost control, and increasing the efficiency of your processes.

Benefits can also be external, positively influencing relationships with insurers, customers, suppliers, regulators and the local community. This can lead to an improved corporate image and, potentially, financial benefits.

An environmental policy plays a vital role in both protecting the environment and establishing the long-term competitiveness of your business – and the broader industry.

OUR RECOMMENDATIONS

- **Include in the environmental policy your sustainability practices and explain how these minimise any negative impacts of your business operations on the environment.**
- **Make sure you communicate the policy to all personnel and stakeholders – so they understand what you're trying to achieve and why, how you're planning to reach your goals, and how they can contribute.**
- **The policy should not gather dust on the office wall. Rather, it should be a living document that guides every business decision, process and action.**

3. Create a property map

Establishing a property map is another important step towards sustainability.

OUR RECOMMENDATIONS

- **Include all roads, buildings, growing structures and outdoor growing areas.**
- **Identify major environmental risk elements including water sources, pump stations, chemical storage, fuel and fertiliser storage, water discharge points, remnant vegetation areas, neighbours and other sensitive environmental zones.**

The property map demonstrates your awareness of key elements which may pose an environmental risk.

Risk areas with the biggest impact on your business

The EcoHort guidelines discuss practices that address environmental risk areas. Your sustainability strategy will have the biggest impact if you focus on three major issues.

WATER

The cost of water continues to rise so it is important to establish an effective water management strategy, now.

What best management practice looks like

Regularly monitoring surface (dam), creek/river, or bore water quality is critical to growing consistent quality plants.

Channel any run-off water from the production system back to a holding or retention pond. Through a drainage system, you can remove floating trash, manage sediment and apply aeration. Aeration reduces algae and other water weeds and can encourage the biological breakdown of organic matter. Water returned from the production system can be treated and re used.

It's essential to measure and monitor outgoing wastewater quality. Once you measure the pH, EC, Nitrate and Phosphate of the source water, you can compare those results with release water measurements. You are responsible for the change in this quality, and EcoHort provides simple benchmarking targets to help guide you.

Parameter	Source irrigation water	Release water
pH	5.5 – 7.0	5.5 – 7.0
EC	<1dS/m	<1dS/m
Nitrate	<100ppm	<40ppm
Phosphate	<40ppm	<15ppm

FERTILISERS AND GROWING MEDIA

Despite access to high quality controlled-release fertilisers, many nurseries cannot meet the required parameters.

This is often due to poor:

- irrigation layout
- irrigation management
- growing media choices.

A recent nursery paper outlines the benefits of installing a well-designed irrigation system. You can read this at: www.greenlifeindustry.com.au/communications-centre-content/nursery-papers/nursery-paper-sprinkler-selection-layout-and-operation

Businesses should aim to meet industry BMP guidelines – many nurseries still over-water when there are resources to help accurately meet plant needs.



Taking water samples from a dam



Lined recycling dam with aerators



Vegetated drainage channels

While many nurseries use bottom up and trough irrigation as well as overhead booms to deliver precision irrigation water application, we encourage monitoring the Bureau of Meteorology (BoM) weather data and onsite weather stations to guide irrigation practices as well as using media moisture sensor probes and load cells for weight-based irrigation.

Make sure you consider timed application of liquid feeding (fertigation) to avoid either irrigation cycles or forecast rain.

Remember: good growers want the applied fertiliser in the pot, not running down the drain.

An EcoHort business follows a range of growing media parameters to guide choices.

Growing media should have an:

- air-filled porosity (AFP) of between 13 – 30%
- water holding capacity (WHC) should be greater than 40%
- water retention efficiency (WRE) greater than 50%.

It's important to adapt internal practices to ensure the best growth and environmental outcomes.

PESTICIDES AND CHEMICALS

Pesticide use should be part of an integrated pest management (IPM) system.

Nurseries with a structured crop monitoring and recording program detect problems earlier and can enact a tiered response strategy where pesticide application is the final step. This means these businesses reduce pesticide use, often use less harmful ones, and reduce any negative impacts on the environment.

The NIASA and EcoHort programs guide growers to meet their legal obligations through:

- storing pesticides appropriately
- maintaining safety data sheets (SDSs) and registers/manifests
- recording use
- training staff.

Recording the weather at the time of application is a requirement. If the forecast is not conducive to application, delay or defer. Applying at appropriate times and weather can have the greatest impact while not drifting onto neighbouring properties or running off into waterways.

Another key environmental risk area occurs when growers mix pesticides. The EcoHort guidelines provide advice, including spill containment (bundling). The guidelines recommend a spill kit for the rare occasions it is needed. It's important to ensure staff are trained in using it. There are also instructions to manage leftover mixed pesticide solutions, empty drums, and aged or de-registered pesticides.

Other areas to consider

WASTE MANAGEMENT

If you're thinking about waste, a good place to start is to look in your bins! Analysing what you find will show you where you can design recycling and re-use strategies for the most impact – for example, developing systems to recycle inputs.

ENERGY

Most nursery businesses have substantial roof areas – installing solar panels can mean big cost savings. Conduct an energy audit – sometimes just upgrading one piece of equipment can deliver significant savings.



AIR/NOISE/ODOUR POLLUTION

Consider reducing transport access after-hours, noisy spray equipment and pesticide drift. Many pollution issues are easily mitigated, reducing neighbour complaints.

DUST AND FLOATING TRASH

If you can't seal your major roads, reduce dust from trucks and tractors by using windbreaks to slow and disrupt the wind flow. Install debris and silt traps to minimise floating trash entering waterways.



Debris and silt traps

New – natural hazard risks

Thanks to a Hort Innovation levy-funded project 'NY18008 – Nursery Industry natural disaster risk mitigation & recovery plan', we've introduced evaluating 'natural hazard risks' to the EcoHort risk management process. The project focused on growers considering their biggest natural disaster threats, and what they might do to mitigate them. Experience from natural disasters shows that identifying risks and establishing contingency plans is the best indicator of quick recovery.

Next steps to EcoHort Accreditation

- Step 1:** Obtain the EcoHort guidelines and do a nursery walk through with the checklist.
- Step 2:** Establish base data that records your sound environmental stewardship
- Step 3:** Map the first parameters you plan to regularly record
- Step 4:** Draft an environmental policy and share it
- Step 6:** Create a property map
- Step 5:** Consider how you'll address the use of water, fertilisers and growing media, pesticides and chemicals.

Remember to involve your whole team!

Establishing your environmental credentials

Making the shift to sustainability makes business sense.

A business that factors in sustainability risks has better profitability, growth and employee retention.

Sustainability doesn't mean sacrificing profits or putting success on the backburner. Rather, it's critical for your business, the sector and the planet.

Consider an EcoHort credential to help you harness the power of sustainable business.

MORE INFORMATION

- EcoHort accreditation: nurseryproductionfms.com.au/eco hort-certification

Contact your local GIA Extension Officer:

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Past Nursery Papers: <https://www.greenlifeindustry.com.au/communications-centre>