

Environmental Management Systems and Pork Production

An Environmental Management System (EMS) is a voluntary tool that provides a framework for businesses to manage their environmental impacts, prevent pollution, enhance the environment, achieve continuous improvement. An EMS that has been independently audited and certified is a way to demonstrate your environmental responsibility and commitment to stakeholders.

The main environmental system standard is ISO 14001:2015 *Environmental management systems- Requirements for guidance for use* (Note: this is the same as AS/NZS ISO 14001:2016). New Zealand has a local EMS called Enviro-Mark which is based on the ISO standard (see www.enviro-mark.co.nz)

An EMS follows a Plan-Do-Check-Review cycle that is flexible enough to suit all types of organisations. A risk management approach is taken that allow the EMS to be easily integrated with safety management and quality systems.

There currently is not the same pressure on farms as there is on other types of business such as manufacturing or exporters to have an EMS. However, it makes good business sense for larger farms to integrate the main elements of an EMS into their business strategy and day-to-day operations. There are a number of elements of an EMS that have already been included in your Farm Environment Plan, nutrient budget and safety systems.

The table below outlines the common elements of an EMS and how they might be considered within a pork production system.

Common EMS elements and their applicability to pork production

Context of the organisation	<ul style="list-style-type: none"> • Determine the internal and external issues that have a direct impact on the business as well as an impact on the global environment (e.g. water quality, land use, erosion, air quality etc). This may have been considered during the development of a business plan. • Consider the risks and opportunities for the business (e.g. regulatory requirements, use of new technology, staff availability, animal rights campaigners, grain pricing, pork meat imports. Understanding the needs and expectations of interested parties (e.g. staff, investors, council, neighbours, pork consumers, pork retailers, pork wholesalers, general public, regulators e.g. MPI, etc.). This may have been considered during the development of a business plan, for example, a SWOT analysis.
------------------------------------	---

Leadership	<ul style="list-style-type: none"> • Top management are accountable for the environmental performance of the farm a support other roles to achieve good environmental outcomes. Top management can delegate out tasks and responsibilities for environmental management but should still be accountable. This will be part of the farm culture. • The farm has an environmental policy. This is currently not part of the Farm Environment Plan requirements but will be added as an optional requirement. • Roles and responsibilities for environmental management have been clearly defined. Documented in a Farm Environment Plan.
Planning	<ul style="list-style-type: none"> • Conduct a risk assessment and determine significant environmental impacts and the risks associated with the threats and opportunities for your farm. The Farm Environment Plan will provide a set of risks but not opportunities. • Compliance obligations including both regulatory requirements, stakeholder requirements e.g. agreement with wholesaler and any voluntary obligations have been identified and the necessary systems are in place to ensure that farm adheres to these obligations. Currently not covered in a Farm Environment Plan but will be included as an optional requirement. • There is a programme in place to improve and this is part of the business planning and strategy. This will include environmental objectives, performance targets and Key Performance Indicators (KPIs). Documented in a Farm Environment Plan. • Develop a plan to achieve your environmental objectives. Documented in a Farm Environment Plan.
Support	<ul style="list-style-type: none"> • Ensure there are adequate resources for the farm e.g. people, budget, equipment, computers, buildings, effluent ponds etc. Not documented in a Farm Environment Plan but may be available in business plans, financial budgets etc. • Ensure staff and contractors have an awareness of the environmental issues and staff that are actively involved achieving regulatory requirements (e.g. effluent management, nutrient management) are competent either through training or experience. It's a good idea to expand an existing Health and Safety programme to include environmental issues in the staff and contractor induction, any contracts for work, job safety analysis etc. • There is a plan in place for internal and external communications. All stakeholders receive information that is accurate, timely and in a format that they can use to make necessary decisions. This is not included in a Farm Environment Plan. A simple communications plan can be developed. • There are processes in place to ensure important documents are controlled. This is not included in a Farm Environment Plan. A simple means of ensuring there is a process to create and amend documents, ensure the latest versions are identified and documents can be easily retrieved.

Operation	<ul style="list-style-type: none"> • Significant environmental impacts are controlled and managed in a way that reduces the impact on the environment. The level of control is based on the level of risk. This may include the development of work instructions, standard operating procedures or 'house rules' for staff. These can be in any format e.g. posters, videos, written instructions. The Farm Environment Plan will identify the high risk areas. This will lead to the development of process to manage and control these. It's a good idea to expand an existing work instructions that include health and safety requirements to include the environment. • The reasonable foreseeable emergencies have been considered and a response plan is in place to take action when these occur. This is not included in the Farm Environment Plan and will usually sit within the Health and Safety system. Include environmental emergencies such as effluent pond failure, odour complaints, discharges to stormwater, hazardous waste disposal in your Emergency Plan.
Performance evaluation	<ul style="list-style-type: none"> • Monitoring and measurement for significant environmental impacts has been considered and implemented. Documented in a Farm Environment Plan. • Any monitoring data is accurate and farm owned equipment is calibrated according to the manufacturers requirements e.g. water meters. Documented in a nutrient budget and Farm Environment Plan. • Compliance is being monitored and evaluated by top management on a regular basis. Documented in a Farm Environment Plan. • There is an internal audit programme set up and implemented. Documented in a Farm Environment Plan. • A top management review of the EMS is being completed and this evaluates the effectiveness of the EMS to achieve the desired outcomes. Documented in a Farm Environment Plan.
Improvement	<ul style="list-style-type: none"> • Continual improvement is occurring and can be demonstrated by improved compliance, reduction in environmental risk, improved competency of staff, reduce odour complaints, more ground cover, reduced nutrient losses etc. This is in the Farm Environment Plan, implementing Good Management Practices and reducing nutrient loss to water over time. • There is a non-conformity and corrective action process in place e.g. when things go wrong they are investigation, action taken to fix it now and prevent it occurring again. This is not included in a Farm Environment Plan. It's a good idea to combine this process with Health and Safety so that environmental incidents and near misses get reported, investigated, fixed and action taken to prevent it occurring in the future.

Source: McHugh, J. Pers. Comms (2016)