

RISK MANAGEMENT PLANNING



October 2019

Good Farming/ Manufacturing Practice

Do I need to review my Organic Management Plan (OMP) and/or Organic Handling Plan (OHP) to include Risk-Based Preventive Controls?

The **NASAA Standard** indicates “Risk Management Planning should be used as a tool to address contamination risks and outline management strategies to minimise the impact of risks on the integrity of certified produce and land. Areas of high risk should be identified in Risk Management Plans and appropriate methods implemented to preclude such areas from certified . . . production”.¹

What exactly is a risk and how does it differ from a hazard?

A hazard is anything that has the potential to harm people, or pose a threat to life, property or environment. Hazard Analysis Critical Control Point (HACCP) and Risk Management are they the same?

A HACCP program is used in the food industry to identify possible public health effects resulting from chemical, biological or physical contamination.

A risk is an evaluation of the probability of a certain event or situation occurring. The level of risk will depend on factors such as **how often** the situation occurs, the **numbers** of livestock or **size** of area involved and **how serious** any result could be when the event or situation does occur.

According to the “go-to resource” for all information - Wikipedia², most hazards are dormant or potential with only a theoretical risk of harm. However, once a hazard becomes “active”, it can create an emergency. A hazardous situation that has come to pass is called an incident. Hazard and possibility interact together to create risk.

Risk Management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unwanted events.

The International Organization for Standardization (ISO) 31000³ identifies a number of principles underpinning risk management:

These principles include:

- > A systematic and structured process
- > Be part of decision making process
- > Be tailorable
- > Take human factors into account
- > Be transparent and inclusive
- > Be dynamic, iterative and responsive to change
- > Be capable of continual improvement and enhancement
- > Be continually or periodically re-assessed.

Steps to Risk Management Planning

1. Identify the risks

Begin by listing each potential source of contamination for your enterprise(s). This should include internal (within your farm boundary) as well as external factors which have the ability to impact on product integrity.

Examples of internal factors may include: use of contractors for various farming activities; old dip sites; stock routes; split or parallel production; purchase of any farm inputs for soil, plant or stock use.

Examples of external factors may include: neighbouring farming activities; water supply and/or water run-off onto your land; council/roadside activities; control authority activities eg plague locusts, energy service providers.

2. Assess each risk

For each of the identified risks, you will need to make an assessment of how often the event is likely to occur AND the consequences of the event/hazard if it does occur.

¹ NASAA Organic and Biodynamic Standard February 2016, Section 3.1 ² <https://en.wikipedia.org/wiki/Hazard> ³ ISO 31000:2009, *Risk management - Principles and guidelines*

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A. Probability or Likelihood of Occurrence

A typical way to place a value on the probability of an identified risk occurring is to classify it in terms of the chance or “likelihood” of occurrence”:

- > ALMOST CERTAIN
- > LIKELY
- > MODERATE
- > UNLIKELY
- > RARE

B. Consequence of Occurrence

As well as deciding how often the risk may occur, you need to also decide how serious the outcome of the event will be when/if it happens:

- > MINOR - no land or product compromised
- > MODERATE - land and/or product may be compromised. Product/soil testing required. Area may require quarantine and/or product removed from market
- > MAJOR - land and/or product compromised. Land quarantined and product removed from market.

3. Prioritise risk response

Just because an identified risk has been assessed as having major consequences as a result of occurring, does not necessarily mean it is of more importance than a low consequence risk that has the potential to occur daily.

In fact, the daily occurring low risk possibility will need to be written into your management/handling plan and implemented on a daily basis, while a high risk unlikely event will need to be acknowledged in your organic plan and a strategy for dealing with the event IF IT OCCURS documented. In the latter case, the response will not be implemented unless the event occurs.

An example of a minor risk occurring on a regular basis could be when, each week a local transport contractor arrives at your farm to collect livestock to take to your local (certified) abattoir. Your documented plan needs to include all of the processes in place, and as well you need to have documentary records that allow inspectors to verify/confirm that trucks have been cleaned down prior to transporting your stock.

High risk low chance events might include that part of your lowest lying area of farm would get flooded once every 100 years or so.

Your documented management plan for handling this risk, could be that stock are excluded from the area (after such an event) and only allowed to graze/use the area once the land has been tested clean of any residues. In this case, the only document is the management plan, since the event has not occurred in your lifetime.

Obviously if/when the event occurs, it will be recorded in your farm diary AND copies of the soil test results held on file, along with livestock movements to show how the land is managed - depending on the outcome of the tests.

4. Control or minimise effect

Whatever program you develop to minimize the identified event from occurring will be very specific to your own situation.

All of the resources associated with the event will need to be factored into your response approach - this will include not only the physical situation (such as lay of the land) but also human factors such as staff and/or other family members.

5. Monitor

“Almost Certain” or “Likely” risks need to be regularly monitored with supporting records in place to verify that the monitoring is occurring

Whatever the level of risk, whenever an incident has occurred/is occurring, you need to control the situation as per the procedure you have developed to deal with the risk.

6. Prioritize risk response

Part of maintaining an up to date Organic Management Plan/ Organic Handling Plan will be a regular review of your operation and this review needs to include your risk management planning.

The review process time-frame needs to be documented in your plan and may occur on a scheduled basis eg every year, or you may indicate the plan is updated or amended “as required” or “on an ongoing basis”. Whatever time-frame you stipulate must work for you, be suitable for the operation(s) concerned and you also need to demonstrate that your review process is effective.

The attached appendix gives a few examples of what an operator might record in their Risk Management Plan.



This Information Sheet is developed specifically for operators certified under any of the NCO organic certification schemes. It contains information about organic protocols and procedures. The information should be read in conjunction with the NASAA Organic & Biodynamic Standards. While every effort has been made to ensure the accuracy and currency of information within this information sheet, NCO accepts no responsibility for information, which may later prove to be misrepresented or inaccurate, or reliance placed on that information by readers. For further information contact NCO Certification Officer or email to info@nco-certifiedorganic.com.au

EXAMPLE OF RISK MANAGEMENT PLAN

Identification, treatment and monitoring for contamination of organic land and/ or produce

	IDENTIFY SOURCE OF CONTAMINATION (below are examples only)	ASSESS LIKELIHOOD OF OCCURING	PRIORITIZE & RESPOND ACCORDING TO CONSEQUENCE (control or minimize)	MONITORING	REVIEW
WATER	Irrigation (e.g. contamination of supply channel with pesticides)	Likely	MAJOR - Negotiate with water authority re: enforcement of restrictions on chemical use near channels and request notification of any impending activity	Water testing based on authority activity	Annual - contact authority requesting information regarding planned channel activities for upcoming year
	Surface runoff from adjacent land	Almost certain	MAJOR - Water diversion and absorption buffer zone on upper borders	After heavy rain inspect for surface flow that might escape buffer zone	Conducted after each high rainfall event
SOIL	Old dip or chemical storage area within the property	Unlikely	MINOR - contaminated area plus buffer zone fenced off and planted to trees and permanent ground cover to prevent dust	Maintain fencing and ground cover	Ongoing – regular fence maintenance
	Fertilizers or composts containing non-permitted substances such as heavy metals or GMO residue from manures	Moderate	MINOR - provided fertilizer or compost only sourced from certified “approved inputs” supplier	Check details of source before purchase; obtain documentation from supplier	Annual – as part of OMP review
AIR	Spray drift from adjacent land	Moderate	MODERATE - Spray drift barrier/buffer zone; drift avoidance measures negotiated with neighbours and authorities like council or water authority (e.g. grower responsible for roadside management; no spraying under certain wind conditions) ; minimise time between harvest and pick-up and/or use bin covers;	Notification of spray activity by neighbours and authorities	Ongoing -Observation of drift then decide if residue test of crop or soil required
	Dust drift from fertiliser spreading on adjacent land	Moderate	As above	As above	Ongoing - Observation of drift
	Pollen from GMO crops	Rare	MAJOR - Avoid crops, cover crops, green manures and weeds related to GMO species (e.g. canola)	Ascertain local GMO crop status and choose crops accordingly; control related weeds	Ongoing – monitor local/neighbouring activities for potential GMO crops

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SEEDS	Crop/cover crop/green manure seeds pelletised and/or treated with prohibited substances	Moderate	MINOR - if certified organic seed source available MODERATE - if non-organic seed available, then source non-treated seed or seed with acceptable treatment	Confirm seed status, including confirmation of non-GMO seed	Annual - as part of yearly seed purchase
PRODUCE	Parallel production: (same or similar varieties) produced under different levels of organic certification	Likely	MAJOR - clear staff instructions (documented and training) regarding handling requirements; dedicated areas and labelling of bins; different harvest days for different certification levels	Supervise harvest activity	Ongoing - monitor staff activities; regularly review documented procedures are being carried out
MACHINERY	Non-permitted fertiliser residues in contracted spreading of organic fertilizer	Moderate	MINOR - if equipment used is dedicated to organically-acceptable materials MODERATE - if equipment has dual use, then approved cleaning procedure required before loading organic input	Confirm equipment use and/or clean-down history	Annual - as part of yearly fertilizer program
	Residues of non-organic produce in harvester and/or transport vehicles	Moderate	MINOR - if equipment used is dedicated to organically-acceptable materials MAJOR - if equipment has dual use, then approved cleaning procedure required before loading organic product	Confirm equipment use and/or clean-down history	Annual - as part of harvest planning and implementation
WEED CONTROL BY AUTHORITIES	Herbicides on roadsides Sprays for fruit fly or locusts Termite treatments for timber power poles	Moderate	MAJOR - Negotiate alternative approaches with relevant authorities, e.g grower responsible for roadside weed management.	Maintain good relations and communication with the relevant authorities	Annual - contact authorities to remind them of certification status, and request to be informed of any activities planned or undertaken; Ongoing - observation of activities