

17 November 2021
179-21

Supporting document 4

Compliance Plans

P1052 Primary Production and Processing Requirements for Horticulture (Berries, Leafy Vegetables and Melons)

Executive summary

FSANZ has prepared three proposed standards, one each for the individual commodity groups reviewed; berries, leafy vegetables and melons. Implementation of the proposed standards is the responsibility of the states and territories.

A Horticulture Implementation Working Group (HIWG) has been established by the Implementation Sub-Committee For Food Regulation¹ (ISFR) to ensure consistent implementation of amendments to the Australia New Zealand Food Standards Code (the Code) nationally. HIWG members include government officers from individual states and territories responsible for food safety in the horticulture sector. The HIWG utilises the Integrated Model for Standards Development and Consistent Implementation of Primary Production and Processing Standards (the Integrated Model) to develop a draft compliance and implementation package for the proposed standards; should standards be approved. Noting that, while draft compliance plans have been developed for leafy vegetables and melons, a draft guidance template has been prepared for the proposed standard for berries as it does not require a General Food Safety Management Requirement (GFSMR).

The Integrated Model approach seeks to develop a range of tools to assist businesses and regulators to implement primary production and processing (PPP) standards at a national level. ISFR convenes the HIWG to develop implementation packages, which may include compliance plans, reference materials, a response plan and food safety management guidelines. The HIWG engages industry stakeholders on the proposed compliance and implementation tools through the Horticulture SDAG and/or via relevant state and territory engagement forums.

The HIWG was instrumental in preparing the proposed compliance plans for leafy vegetables and melons and the proposed guidance template for berries. While FSANZ's standards are outcomes based, the compliance plans outline the requirements and expectations of the regulators in terms of what horticulture primary producers and processors must do to achieve compliance with the proposed FSANZ standards, if and when these standards are approved. These documents clearly articulate how each of the proposed standards, if approved, will be

¹ Implementation Sub-Committee For Food Regulation (ISFR)
<https://foodregulation.gov.au/internet/fr/publishing.nsf/Content/ISFR>

implemented by the state and territory governments i.e. what the proposed regulation will mean for primary producers and processors of berries, leafy vegetables and melons.

The HIWG has met on multiple occasions during assessment of Proposal P1052 and will continue to do so after feedback is received from stakeholders. The draft compliance plans (for leafy vegetables and melons) and the guidance template (for berries) are provided below for information and comment.

Table of contents

EXECUTIVE SUMMARY	1
1. COMPLIANCE PLAN - LEAFY VEGETABLES.....	2
COMPLIANCE PLAN – A: HORTICULTURE PRODUCTION (GROWS AND HARVESTS HORTICULTURE PRODUCE) 3	
COMPLIANCE PLAN – B: HORTICULTURE PRIMARY PROCESSING (UNDERTAKES PRIMARY PROCESSING)	10
2. COMPLIANCE PLANS - MELONS	19
COMPLIANCE PLAN – A: HORTICULTURE PRODUCTION (GROWS AND HARVESTS HORTICULTURE PRODUCE)	20
COMPLIANCE PLAN – B. HORTICULTURE PRIMARY PROCESSING (UNDERTAKES PRIMARY PROCESSING)	26
3. GUIDANCE DOCUMENT - BERRIES	35
INTRODUCTION	35
BUSINESS DETAILS.....	36
SECTION 1: <i>Business Particulars</i>	36
SECTION 2: <i>Traceability</i>	37
SECTION 3: <i>Inputs</i>	37
SECTION 4 : <i>Premises and Equipment</i>	38
SECTION 5: <i>Skills and Knowledge</i>	39
SECTION 6: <i>General Food Safety Requirements</i>	39
SECTION 7: <i>Sale or Supply of Unacceptable Berries</i>	39

1. Compliance plan - Leafy Vegetables

The following activity groups have been identified as included by proposed Standard 4.2.8 (leafy vegetables) and are covered by Compliance Plans A and B attached.

The activity groups are:

1. Horticulture producer: grows, harvests, and transports leafy vegetables to another business (e.g. processor, wholesaler, retailer, food service).
2. Horticulture producer: grows, harvests, and transports leafy vegetables from the field to a premises on the same site where produce is subject to any one of the following relevant activities: washing, trimming, sorting, ripening, sanitising, fumigating, cutting, packing, combining products or handling packed product.
3. Horticulture processor: grows, harvests and processes their own leafy vegetables, as well as receives leafy vegetables from other producers for processing and undertakes any one of the following activities; washing, trimming, sorting, ripening, sanitising, fumigating, packing for transport, or handling packed product.
4. Horticulture processor: does not grow or harvest leafy vegetables. Undertakes any of the following activities on leafy vegetables received from a producer; washing, trimming, sorting, ripening, sanitising, fumigating, packing for transport, or handling packed product, whether or not the packed product is removed from its original packaging and co-mingled with other leafy vegetables and then re-packaged.

Two compliance plans have been developed to promote consistent implementation of the standard for these various activities. The plans are draft only and are provided to assist stakeholders understand how the proposed standard – if approved in its current form – may be implemented by jurisdictions. The plans are subject to any changes that may occur as a result of the 2nd CFS, or in the standards development and/or consistent implementation process.

Comments on proposed guidance document are welcomed.

The compliance plans:

- describe the key issues of compliance
- contain minimum requirements to achieve compliance with the standard
- provide a jurisdiction's intent for monitoring industry compliance with the standard.

Compliance plans applicable to each activity group:

Activity group	Applicable compliance plan/s
1 (only)	A
2	A and B
3	A and B
4 (only)	B

Notes: Some industry operations will involve a combination of both plans (e.g. grow and harvest and primary processing on the same premises – A and B). Further details describing acceptable means of compliance may be found in the reference materials (see attached list) or in the guideline for a model food safety management statement for a horticulture producer or a horticulture processor. In all instances horticulture businesses are advised to contact the relevant food regulator within their jurisdiction for further advice concerning an acceptable means of compliance before adopting matters described in these compliance plans.

Compliance plan A: Horticulture production (grows and harvests horticulture produce)

Hazard: Unacceptable² prescribed horticulture produce being offered for sale or supply into the human food supply chain.

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>General food safety management³</p> <p>The food safety management statement must set out how a business proposes to manage the identified hazards.</p> <p>- Horticulture produce Outcome – The business describes and implements a primary production system which will result in the collective outcomes of the compliance plan (described below) being met.</p> <p>(e.g. The business identifies its site selection, site preparation and site growth and harvesting strategies. The business further describes its transport processes to a horticulture processor. Business also identifies how it maintains traceability for transported horticulture produce. Business conducts risk assessment of produce at harvest to determine if product is adversely affected by a weather event).</p> <p>At a minimum the food safety management</p>	<p>Evidence/records to be kept to demonstrate that control measures have been implemented and are monitored for:</p> <ul style="list-style-type: none"> - Traceability - Inputs - Water use - Growing site - Weather events that effect produce safety - Premise and equipment - Monitor temperature of harvested leafy vegetables. - Skills and knowledge - Health and hygiene - Pest and animal management - Sale & supply 	<p>Regulator to instigate appropriate monitoring arrangements, e.g. may include inspection or audit, or other arrangement depending on relevant authorities' legislation.</p> <p>The frequency of monitoring will be based on risk and past compliance.</p> <p>If the proposed standard was approved, FSANZ understands that ISFR would endeavor to review this plan, and would consider a national survey of leafy vegetables, two years following the commencement date of Std. 4.2.8.</p>

² *Unacceptable* means prescribed horticulture produce that is unsafe or unsuitable or otherwise in a condition, or contains a substance or organism, which a reasonable person would regard as making it unfit for human consumption.

³ Note that businesses with existing food safety arrangements (e.g. HACCP based food safety programs, industry approved quality assurance programs (e.g. Freshcare, BRC, SQF, HARPS) could be considered to meet the outcomes of a food safety management statement. Chapter 3 of the Food Standards Code applies to food businesses, but not to primary food production. **However, in all instances the regulator will be required to verify that a business's existing food safety arrangement meets the requirements of Standards 4.2.8.**

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
statement will cover all the elements of the Standard 4.2.8.		
<p>- Registration, licensing, accreditation, notification</p> <p>Outcome – The horticulture producer has notified the relevant authority of:</p> <ul style="list-style-type: none"> i) contact details ii) nature of business iii) location. 	The relevant authority has been informed of the business, location and its activities.	Changes in activities have been communicated to the relevant authority.
<p>- Traceability</p> <p>Outcome – A system is implemented to identify from whom all leafy vegetable produce was received and to whom it was supplied.</p> <ul style="list-style-type: none"> • For example: invoices prepared for produce sold to processors indicate the producer name and location. 	<p>Producer must maintain records of all horticulture produce sold or supplied (e.g. invoices, distribution logs).</p> <p>Producer should be capable of recalling all product sold or supplied within a reasonable timeframe, if required.</p>	The food safety management statement contains evidence that the business can effectively trace produce to all recipients, and can initiate and/or enact a recall if required.
<p>- Inputs: Soil, soil amendments and fertilisers</p> <p>Outcome – Microbiological hazards associated with soil, soil amendments and fertilisers are appropriately managed so that horticultural product is not unacceptable (e.g. compost is appropriately treated).</p> <ul style="list-style-type: none"> • Fertilisers/compost used are of an appropriate standard. • Un-treated manure, un-treated food waste or human effluent or biosolids are not applied to lands used to grow leafy vegetables. 	<p>Only appropriate agricultural chemicals are applied to horticulture produce (e.g. products with known MRLs).</p> <p>Only appropriate fertiliser/compost is applied to produce, and verified by the business to be of suitable microbiological quality, e.g. purchase receipts / CoA retained, and/or if produced on-site, fertiliser and compost, may be subject to microbiological tests to verify practices and confirm the absence of known foodborne pathogens (e.g. Salmonella). For example: documented as compliant with AS 4454:2012 or equivalent.</p>	The food safety management statement contains evidence that inputs have been identified and managed as part of the business risk assessment.
<p>- Inputs: Seeds and seedlings</p> <p>Outcome – All reasonable measures are taken to ensure that seeds and seedlings do not make the horticultural produce unacceptable.</p>	<p>Seeds are obtained from an approved supplier that conducts appropriate testing and provides a Certificate of Analysis (CoA).</p> <p>Verification tests on incoming seeds could be</p>	The food safety management statement contains evidence that seeds and seedlings have been considered as part of the business risk assessment.

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> Seeds and seedlings are obtained from suppliers who have implemented programs to assure the microbiological safety of the product. 	<p>considered, if there is doubt on microbiological quality.</p>	
<p>- Site selection, design and management (including weather events) Outcome – The land selected for the growth of horticulture produce is appropriate and does not give rise to concerns that harvested produce is unacceptable (e.g. no known natural contaminant or persistent chemical in soils above maximum levels (MLs) or maximum residue limits (MRLs) prescribed in the Code – e.g. Cadmium, Lead, persistent organochlorine chemicals). Where residues of such materials are detected, appropriate management measures are put in place. Weather events means unexpected, unusual, severe, or unseasonal weather and includes but is not limited to, drought, dust storms, strong wind, heavy rain, flooding, severe frost and/or hail.</p>	<p>Assessment of previous land use.</p> <p>Septic systems do not drain onto land where horticulture produce is to be grown.</p> <p>In the event of a weather event:</p> <ul style="list-style-type: none"> Corrective action/s have been taken when necessary (e.g. description of actions for segregation and diversion of weather affected produce). Produce subject to a weather event is treated so that it is not acceptable for human sale and supply (e.g. segregated from other produce). Activities taken in relation to the treatment and handling of weather affected products have been communicated to the appropriate regulator. 	<p>Previous land use records available.</p> <p>Evidence that land will not be contaminated by other on-site activities.</p> <p>Evidence that weather events have been identified as a risk, and control measures and corrective actions have been documented.</p> <p>When a regulator is informed of a weather event and produce is still to be supplied as raw, ready to eat, the regulator may undertake increased surveillance of affected produce.</p>
<p>- Premises and equipment Outcome – Systems are implemented to ensure that premises and equipment used in production of horticulture produce do not present a source of contamination for leafy vegetables. Premises and equipment should also be kept clean and where practicable, sanitised and kept in good repair.</p> <ul style="list-style-type: none"> Harvesting equipment is not used to transport waste. 	<p>Production and harvesting equipment used are maintained in a clean, sanitary and functional state so it is not a source of potential microbiological, chemical or physical contamination for horticulture produce (e.g. records of regular cleaning and sanitation procedures is maintained).</p> <p>Schedules may include:</p> <ul style="list-style-type: none"> Cleaning and sanitising Maintenance Preventive maintenance Good Manufacturing Practice 	<p>The food safety management statement contains evidence that the business has identified appropriate controls, and corrective actions, for maintaining premises and equipment.</p> <p>Evidence that the business is maintaining the premise and equipment so that it does not become a source of contamination.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> Harvesting containers are kept clean and well maintained so they do not introduce contamination onto harvested produce. Non-direct contact equipment, i.e. hydroponic systems, irrigation systems, do not introduce contamination onto harvested produce. Facility and equipment sanitation practices should be documented and implemented (in accordance with standard good manufacturing practices and good hygiene practices) to prevent contamination and cross-contamination. 		
<p>- Transport Outcome – Harvested horticultural produce is not transported in such a way to make the produce unacceptable.</p> <ul style="list-style-type: none"> Vehicles used to transport harvested produce (i.e. to a processor) are maintained in a clean and functional state. Produce is transported at a stable temperature to discourage excess condensation on product surfaces. 	<p>Transport on farm – under control of business & monitored via premise and equipment controls.</p> <p>External transport –</p> <ul style="list-style-type: none"> All transport companies are documented Ensure any contracted business is using appropriate vehicles Regular inspections of transport vehicles prior to loading 	<p>Cleaning, sanitation and maintenance of transport vehicles is identified on the business food safety management statement.</p> <p>External transport providers are under an approved supplier agreement / scheme and / or are inspected by the business at an appropriate frequency.</p>
<p>- Temperature of harvested produce Outcome – Harvested horticultural produce is kept at a temperature to minimise opportunity for growth of pathogenic microorganisms that may make produce unacceptable.</p>	<p>Appropriate temperature/time monitoring may be considered if required.</p>	<p>Risk assessment of time/temperature requirements identified in the food safety management statement with appropriate operational parameters considered.</p>
<p>- Inputs: Water (pre-harvest only) Outcome – Water applied to horticulture product or to lands used to grow and harvest horticulture product does not make such product unacceptable.</p> <ul style="list-style-type: none"> Water sources: water used for irrigation, if not potable, is frequently monitored to 	<p>Only water of a suitable microbiological quality, and/or water treated to a suitable microbiological quality, is to be used on leafy vegetables (pre-harvest), to ensure it is not a source of contamination.</p> <ul style="list-style-type: none"> Document the water sources used. 	<p>Evidence that the business has identified suitable control measures for appropriate water use.</p> <p>May include licensing / registration / accreditation for use of recycled water or bores.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>ensure exclusion of contaminants from any of the following: human activity, livestock or domestic animals, wildlife, or other sources – such as algae.</p> <ul style="list-style-type: none"> • Undertake regular risk assessment of water sources; assess the potential for cross contamination between water sources under normal and high rainfall/flood conditions; and ensure microbial quality of water is appropriate for its intended use. • Regularly test water sources and undertake appropriate treatment of water sources; maintain appropriate testing records; and increase testing if animal incursion, weather or climatic factors affect water sources. 	<ul style="list-style-type: none"> • Ensure appropriate management of water sources (if required). • Protect water source from waste water infrastructure (e.g. septic systems) and livestock. 	
<p>- Animals and pests Outcome – Growing and harvest areas should be designed, constructed and maintained in such a way to prevent the entry of vermin and other wild or domestic animals onto growing or harvesting areas. Excess waste around or near growing areas should be removed to prevent attraction of pests. Harvested produce should not be left in the field for extended periods.</p> <ul style="list-style-type: none"> • Appropriate pest and vermin programs, practices and treatments are followed to prevent the contamination of horticulture produce. Fences erected around growing areas as appropriate. • The location of bait stations and traps is known and they are appropriately maintained. 	<p>Pest control monitoring.</p> <p>Stock movement monitoring.</p> <p>Areas used to grow horticulture produce are clearly marked with appropriate practices implemented to minimise the entry of pests, vermin, wild and domestic animals.</p>	<p>The food safety management statement contains evidence that control measures for animals and pests have been identified and managed as part of the business risk assessment.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> Domestic and wild animals should not be permitted to graze near, or use land used to grow horticulture produce. 		
<p>- Skills and knowledge Outcome – Personnel have the necessary level of skills and knowledge of food safety and hygiene associated with production of horticulture produce.</p> <ul style="list-style-type: none"> Staff required to demonstrate competency. 	<p>Pre-start induction/training.</p> <p>Appropriate training undertaken (may be internal or external).</p>	<p>Induction records.</p> <p>Training records.</p>
<p>- Health and hygiene Outcome – Personnel and visitors use appropriate health and hygiene practices to minimise contamination of horticulture produce.</p> <ul style="list-style-type: none"> Producer, personal hygiene and food handling practices are followed during growing and harvesting of horticulture produce. Persons displaying visible symptoms of, or known to have, communicable illness are excluded from food handling operations in growing and harvesting operations. Restroom amenities are available for persons handling leafy vegetables and are appropriately located on-site. 	<p>Pre-start induction/training.</p> <p>Health & hygiene policies, acknowledgement of staff that they adhere to policies.</p> <p>Training records kept.</p>	<p>Evidence that business has a human resources policy in place to manage staff illness.</p> <p>Restroom amenities are available.</p>
<p>- Sale and supply Outcome – Unacceptable horticulture produce is not provided to a processor for processing as a raw, ready to eat product (i.e. it can be diverted for further processing).</p> <ul style="list-style-type: none"> Produce suspected as being unacceptable at the time of harvest is separated from other harvested produce, and either: <ul style="list-style-type: none"> i) disposed of, or ii) diverted to non-human supply chain (e.g. animal feed), and 	<p>Leafy vegetables rendered unacceptable (e.g. by a dust storm, immersed in flood water, held at an inappropriate temperature) that render them unacceptable are separated from other harvested horticultural produce, disposed of, diverted outside of the human food supply chain or treated for use in foods that's will be subject to some form of microbiocidal treatment (cooking).</p>	<p>Evidence that produce subjected to conditions that make it unacceptable have had appropriate corrective actions applied (including full disclosure to the recipient of unacceptable produce if applicable).</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
iii) treated, or sold to a secondary processor, for use in foods that will be subject to some form of microbiocidal treatment.		

Compliance plan – B: Horticulture primary processing (undertakes primary processing)

Hazard: Unacceptable⁴ prescribed horticulture produce being offered for sale or supply into the human food supply chain

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>General food safety management⁵</p> <p>The food safety management statement must set out how a business proposes to manage the identified hazards associated with the following:</p> <p>- Primary processing of horticulture produce</p> <p>Outcome – The business implements a system to allow for the primary processing of horticulture produce; resulting in produce that is safe and suitable.</p> <p>Should the business receive produce from multiple producers, the primary processor is required to maintain records to verify the source of origin of all received produce.</p> <p>Business also identifies how it maintains traceability back to the source farm for its processed horticulture produce.</p> <p>Produce is inspected at the time of receipt to determine if it is severely weather damaged, rotten, or deteriorated to an extent that it is unlikely to be acceptable for sale as a raw, ready to eat food.</p> <p>At a minimum the food safety management</p>	<p>Evidence/records to be kept to demonstrate that control measures have been implemented and are monitored for:</p> <ul style="list-style-type: none"> - Traceability - Food Recall - Inputs - Water use - Receiving weather affected produce - Premise and equipment - Skills and knowledge - Health and hygiene - Temperature control of received produce - Washing and sanitising - Pest and animal management - Sale & supply - Transport of processed leafy vegetables 	<p>Regulator to instigate appropriate monitoring arrangements, e.g. this may include inspection or audit, or other arrangement depending on regulator’s legislation.</p> <p>The frequency of monitoring will be based on risk and past compliance.</p> <p>If the proposed standard was approved, FSANZ understands that ISFR would endeavor to review this plan, and would consider a national survey of leafy vegetables, two years following the commencement date of Std. 4.2.8.</p>

⁴ *Unacceptable* means prescribed horticulture produce that is unsafe or unsuitable or otherwise in a condition, or contains a substance or organism, which a reasonable person would regard as making it unfit for human consumption.

⁵ Note that businesses with existing food safety arrangements (e.g. HACCP based food safety programs, AQIS approved arrangements, or Standard 3.2.1) could be considered to meet the outcomes of a food safety management statement. **However, in all instances the regulator will be required to verify that a business’s existing food safety arrangement meets the requirements of Standard 4.2.8.**

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>statement will cover all the elements of Standard 4.2.8.</p> <p>Where a horticulture primary processor is considered a food business under the Food Act, it will also be required to continue to comply with Standard 3.2.2 and 3.2.3.</p>		
<p>For primary processing activities only:</p> <p>The food safety management statement must:</p> <p>(a) systematically identify the potential hazards that may be reasonably expected to occur in all food handling operations of the business;</p> <p>(b) identify where, in a food handling operation, each hazard identified under paragraph (a) can be controlled and the means of control;</p> <p>(c) provide for the systematic monitoring of those controls;</p> <p>(d) provide for appropriate corrective action when that hazard, or each of those hazards, is found not to be under control;</p> <p>(e) provide for the regular review of the statement by the food business to ensure its adequacy; and</p> <p>(f) provide for appropriate records to be made and kept by the business demonstrating action taken in relation to, or in compliance with, the food safety management statement.</p>	<p>Verification checks (e.g. internal audits, visual inspections, final product microbiological monitoring) have been made of the business's food safety management operation to confirm they are operating as per the approved food safety management statement.</p>	<p>The business has evidence in its approved food safety management statement to inform where:</p> <ul style="list-style-type: none"> - Corrective actions have been taken when necessary (e.g. description of actions for restoration of control, dealing with unacceptable produce, alternate process and monitoring controls in the event of weather damaged produce entering the processing premises, and prevention of recurrence). - Corrective action/s have been taken when necessary (e.g. description of actions for segregation and diversion of weather affected produce).
<p>- Traceability</p> <p>Outcome – A system is implemented so that all leafy vegetables sold or supplied to the horticulture processor are traceable to the producer that grew and harvested the leafy vegetables.</p> <ul style="list-style-type: none"> • Invoices prepared for product sold to processors indicating producer name and address. 	<p>Processor must maintain records of all leafy vegetable produce sold or supplied (e.g. invoices, distribution logs).</p>	<p>The business has evidence in its approved food safety management statement to inform on verification checks conducted on supplier invoices so premises of origin for all leafy vegetables is clear and accurate.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> • Invoices prepared for product sold to other processors/retailers indicating processor name and address. • If produce is received from multiple producers or from different production sites, records must be maintained to verify the source of origin of received product. • Leafy vegetables sold or supplied by a processor are traceable to the processor. • Business develops a food recall plan to aid traceability. 		
<p>- Inputs: Water (post-harvest only) Outcome – Chemical, physical and microbiological hazards associated with inputs are appropriately managed during primary processing so that leafy vegetables are not made unacceptable.</p> <ul style="list-style-type: none"> • Sanitisation chemicals used are appropriate as food grade sanitisers. • Water sources: if non-potable water is used, it is frequently tested so that it is shown to be equivalent to potable water. In all instances use of potable water is preferred for primary processing operations. 	<p>- Potable (drinking quality) water is used to process horticulture produce, or records are maintained of the treatment of non-potable water, to ensure it is not a source of contamination for processed horticulture produce.</p> <p>- Business may need to demonstrate compliance to the relevant jurisdictional Safe Drinking Water Act.</p>	<p>The business has evidence in its food safety management statement to inform where control measures (if applied) have been implemented and are monitored (e.g. sanitiser concentration logs).</p>
<p>- Premises, plant, equipment and transport Outcome – Systems are implemented to ensure that premises, equipment and transport vehicles used in the processing of leafy vegetables do not present a source of contamination.</p> <ul style="list-style-type: none"> • Premises, equipment and transport vehicles are designed, constructed, cleaned and maintained in an appropriate state. • Cleaning and sanitation programs are conducted in accordance with the 	<p>Processing equipment is maintained in a clean, sanitary and functional state so it is not a source of potential microbiological, chemical or physical contamination for horticulture produce.</p> <p>Records of cleaning and sanitation programs are kept.</p>	<p>The business has evidence in its approved food safety management statement to inform on:</p> <ul style="list-style-type: none"> - Appropriate controls and corrective actions for maintaining premises and equipment. - Evidence that the business is maintaining the premise and equipment so that it does not become a source of contamination.

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>approved food safety management statement on packing/processing shed/premises equipment and premises.</p> <ul style="list-style-type: none"> Harvesting containers are kept clean and well maintained so they do not introduce contamination onto harvested produce. Vehicles used to transport harvested produce to a processor are maintained in a clean and functional state. 		
<p>- Transport of processed produce Outcome – Processed and packaged leafy vegetables are transported in clean vehicles under temperature control to place of retail sale.</p>	<p>Approved Supplier agreements Inspections of transport providers</p>	<p>The business has evidence in its approved food safety management statement to inform on the appropriate transport of processed leafy vegetables.</p>
<p>- Processing operations: pre-wash Outcome – Received leafy vegetables are processed so they are fit for sale as a raw, ready to eat product.</p> <ul style="list-style-type: none"> Pre-wash processing can involve any one of the following activities: <ul style="list-style-type: none"> unload produce received from a producer; sorting (if automated, non-absorbent materials recommended - smooth rubber, plastics or steel may be readily cleaned, porous materials, i.e. sponge is not recommended) 	<p>Evidence is maintained that produce is appropriately sorted with unacceptable produce discarded.</p> <p>Evidence is maintained that automated sorting equipment is appropriately maintained (e.g. rubber is smooth, not cracked or broken).</p>	
<p>- Processing operations: washing and sanitising Outcome – Processing operations do not make leafy vegetables unacceptable.</p> <p>These operations could include:</p> <ul style="list-style-type: none"> pre-cooling washing sanitising. 	<p>Processor is recommended to include the following (where relevant to the processing of leafy vegetables) in the approved food safety management statement:</p> <ul style="list-style-type: none"> Water used in processing operations: <ul style="list-style-type: none"> Pre-wash rinse (removal of soil, debris) where there is a subsequent wash step should be E.coli<100 cfu/100mL. 	<p>The business has evidence in its approved food safety management statement to inform on:</p> <ul style="list-style-type: none"> Effectiveness of the washing process in ensuring that the production system does not produce unacceptable product. Effectiveness of the sanitising agent and the load of the sanitising agent applied to ensure that the production system does not produce unacceptable

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>Washing and sanitising: Outcome – Must effectively wash and/or sanitise leafy vegetables to ensure they are not unacceptable: a) removal of visible extraneous material; b) washing process to be validated as effective; c) sanitisation agent to be validated as effective.</p>	<ul style="list-style-type: none"> - Water used for washing and sanitising produce prior to packing for further sale and supply should meet E.coli<1 cfu/100mL. - Water for use in handwashing should be E.coli<1 cfu/100mL or else an alcohol-based hand sanitiser should be used. • Pre-cooling of produce (where appropriate) prior to sorting, rinsing, washing, sanitising is recommended (suggested temp 5-8°C). • Sanitiser concentration in wash water: <ul style="list-style-type: none"> - Free chlorine: recommended as 200ppm free chlorine concentration for 1 min contact time, alternatively 100ppm free chlorine concentration for 2 mins contact time is also suggested. pH recommended to be between 6.5 – 7.0. - Peracetic Acid 80ppm for 2 mins, pH 7. - Chlorine Dioxide 5ppm for 2 mins. - These parameters must be reviewed for effectiveness in the event of weather events such as dust storms and heavy rain. • Automated sanitiser monitoring is recommended, with a routine check conducted every 30 mins. Otherwise manual checking of sanitiser concentration is required. • Post-process cooling of produce - Cooling to 5°C is recommended. • Any weather damaged stock is washed and sanitised last to minimise risk of cross contamination with non-weather damaged stock. 	<p>product.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>- Processing operations: post-wash, drying, cold storage, chopping, packing Outcome – Washed and sanitised leafy vegetables are not made unacceptable by subsequent handling and processing operations.</p> <ul style="list-style-type: none"> • Following processing, leafy vegetables are appropriately handled prior to placing in cold storage (5°C) until moved on in the supply chain • If leafy vegetables are cut and/or chopped at the processor, these processes are conducted to avoid the risk of product becoming unacceptable (e.g. surfaces and cutting equipment are kept in a clean and sanitary state). • Packing of leafy vegetables is conducted using appropriate packaging materials. • Should product be co-mingled appropriate records are maintained by the processor. 	<p>The processor maintains appropriate evidence of:</p> <ul style="list-style-type: none"> - Temperature/data logger records for chiller. - Cleaning and sanitation records for chopping and cutting equipment. 	<p>The business has evidence in its approved food safety management statement to inform on effectiveness of the post washing treatment process in ensuring that the production system does not produce unacceptable product.</p>
<p>- Animals and Pests Outcome – Packing sheds, and other areas around primary processing areas are designed, constructed and maintained in such a way to prevent the entry of vermin and other wild or domestic animals onto premises. Excess waste around primary processing areas should be removed to prevent attraction of pests.</p> <ul style="list-style-type: none"> • Appropriate pest and vermin programs, practices and treatments are followed to prevent the contamination of horticulture produce in primary processing areas. • The location of bait stations and traps is known and they are appropriately maintained. 	<p>- Areas used to process horticulture produce are clearly marked with appropriate programs implemented to prevent the entry of pests, vermin, wild and domestic animals.</p>	<p>The business has evidence in its approved food safety management statement to inform on the effective operation of pest control systems and corrective actions.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> Domestic and wild animals should not be permitted to enter primary processing areas. 		
<p>- Skills and knowledge Outcome – Personnel have the necessary level of skills and knowledge of food safety and hygiene associated with processing of horticulture produce.</p> <ul style="list-style-type: none"> Staff required to demonstrate competency. 	<p>Pre-start induction / staff training.</p> <p>Appropriate training provided (may be internal or external).</p>	<p>The business has evidence in its approved food safety management statement to inform on:</p> <ul style="list-style-type: none"> induction records training records
<p>- Health and hygiene Outcome – Personnel and visitors use appropriate health and hygiene practices to minimise contamination of leafy vegetables.</p> <ul style="list-style-type: none"> Processor personal hygiene and food handling practices are followed during the processing of leafy vegetables. Packing sheds are equipped with soap and potable water (or equivalent) for washing hands. Similar water/soap is available on staff amenities. Persons displaying visible symptoms of, or known to have, communicable illness are excluded from food handling operations in packing/processing sheds/premises. Persons handling produce in packing/processing sheds/premises are suitably dressed to minimise the opportunity for produce to become contaminated. 	<p>Pre-start induction / staff training.</p> <p>Health and hygiene policies.</p> <p>Assessment of staff practices.</p>	<p>The business has evidence in its approved food safety management statement to inform on how:</p> <ul style="list-style-type: none"> it ensures that staff affected by human health illnesses do not become a source of contamination for leafy vegetables produce. staff are excluded from food handling activities when ill.
<p>- Sale and supply Outcome – Unacceptable leafy vegetables are not sold or entered into the supply chain as food for human consumption.</p> <ul style="list-style-type: none"> Product suspected as being unacceptable at the time of harvest or receipt by a 	<p>Leafy vegetables that have been subject to a weather event (e.g. dust storm, immersed in flood water) are separated from other harvested horticultural produce, and managed in a way to reduce the food safety risks.</p>	<p>The business has evidence in its approved food safety management statement to inform on the appropriate handling and processing of weather affected produce that ensures that unacceptable leafy vegetables are not sold or entered into the human food supply chain.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>processor (e.g. affected by adverse weather event) is separated from other harvested produce, and either:</p> <ul style="list-style-type: none">i) disposed of; orii) processed separately from un-affected leafy vegetables; andiii) diverted to another supply chain where it will be appropriately treated with a microbiocidal treatment.		

Reference materials for Leafy vegetable production:

Guidelines for Fresh Produce Food Safety 2019.

<https://fpsc-anz.com/food-safety-guidelines-2019/>

Freshcare Food Safety and Quality Standard Edition 4.1 (July 2019)

<https://www.freshcare.com.au/wp-content/uploads/Freshcare-Food-Safety-Quality-Standard-Edition-4.1-July-2019.pdf>

2. Compliance plans - Melons

The following activity groups have been identified as included by draft proposed Standard 4.2.9 (melons) and are covered by Compliance Plans A and B attached.

The activity groups are:

1. Horticulture producer: grows, harvests, and transports melons to another business (e.g. processor, wholesaler, retailer, food service).
2. Horticulture producer: grows, harvests, and transports melons from the field to a premises on the same site where produce is subject to any one of the following relevant activities: washing, trimming, sorting, ripening, sanitising, fumigating, cutting, packing, combining products or handling packed product.
3. Horticulture processor: grows, harvests and processes their own melons, as well as receives melons from other producers for processing, and undertakes any one of the following activities; washing, trimming, sorting, ripening, sanitising, fumigating, packing for transport, or handling packed product.
4. Horticulture processor: does not grow or harvest melons. Undertakes any of the following activities on melons received from a producer; washing, trimming, sorting, ripening, sanitising, fumigating, packing for transport, or handling packed product, whether or not, the packed product is removed from its original packaging and co-mingled with other melons and then re-packaged.

Two compliance plans have been developed to promote consistent implementation of the standard for these various activities. The plans are draft only and are provided to assist stakeholders understand how the proposed standard – if approved in its current form – may be implemented by jurisdictions. The plans are subject to any changes that may occur as a result of the 2nd CFS, or in the standards development and/or consistent implementation process.

Comments on proposed guidance document are welcomed.

The compliance plans:

- describe the key issues of compliance,
- contain minimum requirements for compliance with standard 4.2.9,
- provide a jurisdiction's intent for monitoring industry compliance with the standard.

Compliance plans applicable to each activity groups:

Activity group	Applicable compliance plan/s
1 (only)	A
2	A and B
3	A and B
4 (only)	B

Note: Some industry operations will involve a combination of both plans (e.g. grow and harvest and primary processing on the same premises – A and B). Further details describing acceptable means of compliance will be found in the reference materials (see attached list) or in the guideline for a model food safety management statement for a horticulture producer or a horticulture processor. In all instances horticulture businesses are advised to contact the relevant food regulator within their jurisdiction for further advice concerning an acceptable means of compliance before adopting matters described in these compliance plans into their businesses

Compliance plan - A: Horticulture production (grows and harvests horticulture produce)

Hazard: Unacceptable⁶ prescribed horticulture produce being offered for sale or supply into the human food supply chain

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>General Food Safety Management⁷</p> <p>The food safety management statement must set out how a business proposes to manage the identified hazards.</p> <p>- Horticulture produce Outcome – The business describes and implements a primary production system which will result in the outcomes of the compliance plan (described below) being met. (e.g. The business identifies its site selection, site preparation and site growth and harvesting strategies. The business further describes its transport processes to a horticulture processor. Business also identifies how it maintains traceability for transported horticulture produce. Business conducts risk assessment of produce at harvest to determine if product is adversely affected by a weather event).</p> <p>At a minimum the food safety management statement will cover all the elements of Standard 4.2.9.</p>	<p>Evidence/records to be kept to demonstrate that control measures have been implemented and are monitored for:</p> <ul style="list-style-type: none"> - Traceability - Inputs - Water use - Growing site - Weather events that effect produce safety - Premise and equipment - Monitor temperature of harvested melons - Skills and knowledge - Health and hygiene - Pest and animal management - Sale & supply 	<p>Regulator to instigate appropriate monitoring arrangements, e.g. may include inspection or audit, or other arrangements, depending on relevant authorities' legislation.</p> <p>The frequency of monitoring will be based on risk and past compliance.</p> <p>If the proposed standard was approved, FSANZ understands that ISFR would endeavor to review this plan, and would consider a national survey of melons, two years following the commencement date of Std. 4.2.9.</p>

⁶ *Unacceptable* means prescribed horticulture produce that is unsafe or unsuitable or otherwise in a condition, or contains a substance or organism, which a reasonable person would regard as making it unfit for human consumption.

⁷ Note that businesses with existing food safety arrangements (e.g. HACCP based food safety programs, Industry approved quality assurance programs (e.g. Freshcare, BRC, SQF, HARPS) could be considered to meet the outcomes of a food safety management statement. Chapter 3 of the Food Standard Code applies to food businesses, but not to primary food production. **However, in all instances the regulator will be required to verify that a business's existing food safety arrangement meets the requirements of Standard 4.2.9.**

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>- Registration, licensing, accreditation, notification</p> <p>Outcome –The horticulture producer has notified the relevant authority of:</p> <ul style="list-style-type: none"> i) contact details ii) nature of business iii) location. 	<p>The relevant authority has been informed of the business, location and its activities.</p>	<p>Changes in activities have been communicated to the relevant authority.</p>
<p>- Traceability</p> <p>Outcome – A system is implemented to identify from whom all melons were received and to whom they were supplied.</p> <ul style="list-style-type: none"> • For example: invoices prepared for produce sold to processors indicate the producer name and location. 	<p>Producer must maintain records of all horticulture produce sold or supplied (e.g. invoices, distribution logs).</p> <p>Producer should be capable of recalling all product sold or supplied within a reasonable timeframe, if required.</p>	<p>The food safety management statement contains evidence that the business can effectively trace produce to all recipients, and can initiate and/or enact a recall if required.</p>
<p>- Inputs: Water (pre-harvest only)</p> <p>Outcome – Water applied to horticulture product or to lands used to grow and harvest horticulture product does not make such product unacceptable.</p> <ul style="list-style-type: none"> • Water sources: water used for irrigation, if non-potable, is frequently monitored to ensure exclusion of contaminants from any of the following: human activity, livestock or domestic animals, wildlife, or other sources – such as algae. • Undertake regular risk assessment of water sources; assess the potential for cross contamination between water sources under normal and high rainfall/flood conditions; and ensure microbial quality of water is appropriate for its intended use • Regularly test water sources and undertake appropriate treatment of water sources; maintain appropriate testing 	<p>Only water of a suitable microbiological quality, and/or water treated to a suitable microbiological quality, is to be used on melons (pre-harvest), to ensure it is not a source of contamination.</p> <ul style="list-style-type: none"> • Document the water sources used. • Ensure appropriate management of water sources (if required). • Protect water source from waste water infrastructure (e.g. septic systems) and livestock. 	<p>Evidence that the business has identified suitable control measures for appropriate water use.</p> <p>May include licensing / registration / accreditation for use of recycled water or bores.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>records; and increase testing if animal incursion, weather or climatic factors affect water sources.</p>		
<p>- Inputs Soil, soil amendments and fertilisers Outcome – Microbiological hazards associated with soil, soil amendments and fertilisers are appropriately managed so that horticultural product is not unacceptable (e.g. compost is appropriately treated).</p> <ul style="list-style-type: none"> • Fertilisers/compost used are of an appropriate standard. • Un-treated manure, un-treated food waste or human effluent or biosolids are not applied to lands used to grow melons. 	<p>Only appropriate agricultural chemicals are applied to horticulture produce (e.g. products with known MRLs).</p> <p>Only appropriate fertiliser/compost is applied to produce, and verified by the business to be of suitable microbiological quality, e.g. purchase receipts / CoA retained, and/or if produced on-site, fertiliser and compost, may be subject to microbiological tests to verify practices and confirm the absence of known foodborne pathogens (e.g. Salmonella). For example: documented as compliant with AS 4454:2012 or equivalent.</p>	<p>The food safety management statement contains evidence that inputs have been identified and managed as part of the business risk assessment.</p>
<p>- Site selection, design and management (including weather events) Outcome – The land selected for the growth of horticulture produce is appropriate and does not give rise to concerns that harvested produce is unacceptable (e.g. no known natural contaminant or persistent chemical in soils above maximum levels (MLs) or maximum residue limits (MRLs) prescribed in the Code – e.g. Cadmium, Lead, persistent organochlorine chemicals). Where residues of such materials are detected, appropriate management measures are put in place.</p> <p>Weather events means unexpected, unusual, severe, or unseasonal weather and includes but is not limited to, drought, dust storms, strong wind, heavy rain, flooding, severe frost and/or hail.</p>	<p>Assessment of previous land use.</p> <p>Septic systems do not drain onto land where horticulture produce is to be grown.</p> <p>In the event of a weather event:</p> <ul style="list-style-type: none"> • Corrective action/s have been taken when necessary (e.g. description of actions for segregation and diversion of weather affected produce). • Produce subject to a weather event is treated so that it is not acceptable for human sale and supply (e.g. segregated from other produce). • Activities taken in relation to the treatment and handling of weather affected products have been communicated to the appropriate regulator. 	<p>Previous land use records available</p> <p>Evidence that land will not be contaminated by other on-site activities.</p> <p>Evidence that weather events have been identified as a risk, and control measures and corrective actions have been documented.</p> <p>When a regulator is informed of a weather event and produce is still to be supplied as raw, ready to eat, the regulator may undertake increased surveillance of affected produce.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>- Premises and equipment Outcome – Systems are implemented to ensure that premises and equipment used in production of horticulture produce do not present a source of contamination for melons. Premises and equipment should also be kept clean and where practicable, sanitised, and kept in good repair.</p> <ul style="list-style-type: none"> • Harvesting equipment is not used to transport waste. • Harvesting containers are kept clean and well maintained so they do not introduce contamination onto harvested produce. • Non-direct contact equipment, i.e. hydroponic systems, irrigation systems, do not introduce contamination onto harvested produce. • Facility and equipment sanitation practices should be documented and implemented, in accordance with standard good manufacturing practices and good hygiene practices, to prevent contamination and cross-contamination. 	<p>Production and harvesting equipment used are maintained in a clean, sanitary and functional state so it is not a source of potential microbiological, chemical or physical contamination for horticulture produce (e.g. records of regular cleaning and sanitation procedures is maintained).</p> <p>Schedules may include:</p> <ul style="list-style-type: none"> • Cleaning and sanitising • Maintenance • Preventive maintenance • Good Manufacturing Practice 	<p>The food safety management statement contains evidence that the business has identified appropriate controls, and corrective actions, for maintaining premises and equipment.</p> <p>Evidence that the business is maintaining the premises and equipment so that it does not become a source of contamination.</p>
<p>- Transport Outcome – Harvested horticultural produce is not transported in such a way to make the produce unacceptable.</p> <ul style="list-style-type: none"> • Vehicles used to transport harvested produce (i.e. to a processor) are maintained in a clean and functional state. • Produce is transported at a stable temperature to discourage excess condensation on product surfaces. 	<p>Transport on farm – under control of business and monitored via premise and equipment controls.</p> <p>External transport –</p> <ul style="list-style-type: none"> • All transport companies are documented • Ensure any contracted business is using appropriate vehicles • Regular inspections of transport vehicles prior to loading. 	<p>Cleaning, sanitation and maintenance of transport vehicles is identified on the business food safety management statement.</p> <p>External transport providers are under an approved supplier agreement / scheme and / or inspected by the business at an appropriate frequency.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>- <i>Temperature of harvested produce</i> Outcome – Harvested horticultural produce is kept at a temperature to minimise opportunity for growth of pathogenic microorganisms that may make produce unacceptable.</p>	<p>Appropriate temperature/time monitoring may be considered if required.</p>	<p>Risk assessment of time/temperature requirements identified in the food safety management statement with appropriate operational parameters considered.</p>
<p>- <i>Animals and Pests</i> Outcome – Growing and harvest areas should be designed, constructed and maintained in such a way to prevent the entry of vermin and other wild or domestic animals onto growing or harvesting areas. Excess waste around or near growing areas should be removed to prevent attraction of pests. Harvested produce should not be left in the field for extended periods.</p> <ul style="list-style-type: none"> • Appropriate pest and vermin programs, practices and treatments are followed to prevent the contamination of horticulture produce. Fences erected around growing areas as appropriate. • The location of bait stations and traps is known and they are appropriately maintained. • Domestic and wild animals should not be permitted to graze near, or use land used to grow horticulture produce. 	<p>Pest control monitoring.</p> <p>Stock movement monitoring.</p> <p>Areas used to grow horticulture produce are clearly marked, with appropriate practices implemented to minimise the entry of pests, vermin, wild and domestic animals.</p>	<p>The food safety management statement contains evidence that control measures for animals and pests have been identified and managed as part of the business risk assessment.</p>
<p>- <i>Skills and knowledge</i> Outcome – Personnel have the necessary level of skills and knowledge of food safety and hygiene associated with production of horticulture produce.</p> <ul style="list-style-type: none"> • Staff required to demonstrate competency. 	<p>Pre-start induction/training.</p> <p>Appropriate training undertaken (may be internal or external).</p>	<p>Induction records.</p> <p>Training records.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>- Health and hygiene Outcome – Personnel and visitors use appropriate health and hygiene practices to minimise potential contamination of horticulture produce.</p> <ul style="list-style-type: none"> • Producer, personal hygiene and food handling practices are followed during growing and harvesting of horticulture produce. • Persons displaying visible symptoms of, or known to have, communicable illness are excluded from food handling operations in growing and harvesting operations. • Restroom amenities are available for persons handling melons and are appropriately located on-site. 	<p>Pre-start induction/training.</p> <p>Health & hygiene policies, acknowledge of staff that they adhere to policies.</p> <p>Training records kept.</p>	<p>Evidence that business has a human resources policy in place to manage staff illness.</p> <p>Restroom amenities are available.</p>
<p>- Sale and supply Outcome – Unacceptable horticulture produce (melons) are not provided to a processor for processing as a raw, ready to eat product.</p> <ul style="list-style-type: none"> • Produce suspected as being unacceptable at the time of harvest is separated from other harvested produce, and: <ul style="list-style-type: none"> i) disposed of; or ii) diverted to non-human supply chain (e.g. animal feed). 	<p>Melons rendered unacceptable (e.g. by a dust storm, immersed in flood water, held at an inappropriate temperature) that render them unacceptable are separated from other harvested horticultural produce and disposed of, or diverted outside of the human food supply chain.</p>	<p>Evidence that produce subjected to conditions that make it unacceptable have had appropriate corrective actions applied.</p>

Compliance plan – B. Horticulture primary processing (undertakes primary processing)

Hazard: Unacceptable⁸ prescribed horticulture produce being offered for sale or supply into the human food supply chain

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>General food safety management⁹</p> <p>The food safety management statement must set out how a business proposes to manage the identified hazards associated with the following:</p> <p>- Primary processing of horticulture produce The business implements a system to allow for the primary processing of horticulture produce; resulting in produce that is safe and suitable.</p> <p>Should the business receive produce from multiple producers, the primary processor is required to maintain records to verify the source of origin of all received produce.</p> <p>Business also identifies how it maintains traceability back to the source farm for its processed horticulture produce.</p> <p>Produce is inspected at the time of receipt to determine if it is severely weather damaged, rotten, or deteriorated to an extent that it is unlikely to be acceptable for sale as a raw, ready to eat food.</p> <p>At a minimum the food safety management statement will cover all elements of Standard</p>	<p>Evidence/records to be kept to demonstrate that control measures have been implemented and are monitored for:</p> <ul style="list-style-type: none"> - Traceability - Food Recall - Inputs - Water use - Receiving weather affected produce - Premise and equipment - Skills and knowledge - Health and hygiene - Temperature control of received produce - Washing and sanitising - Pest and animal management - Sale & supply - Transport of processed melons 	<p>Regulator to instigate appropriate monitoring arrangements, e.g. this may include inspection or audit, or other arrangement depending on regulator's legislation.</p> <p>The frequency of monitoring will be based on risk and past compliance.</p> <p>If the proposed standard was approved, FSANZ understands that ISFR would endeavor to review this plan, and would consider a national survey of melons, two years following the commencement date of Std. 4.2.9.</p>

⁸ *Unacceptable* means prescribed horticulture produce that is unsafe or unsuitable or otherwise in a condition, or contains a substance or organism, which a reasonable person would regard as making it unfit for human consumption.

⁹ Note that businesses with existing food safety arrangements (e.g. HACCP based food safety programs, AQIS approved arrangements, or Standard 3.2.1) could be considered to meet the outcomes of a food safety management statement. **However, in all instances the regulator will be required to verify that a business's existing food safety arrangement meets the requirements of Standard 4.2.9.**

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>4.2.9.</p> <p>Where a horticulture primary processor is considered a food business under the Food Act, it will also be required to continue to comply with Standard 3.2.2 and 3.2.3.</p>		
<p>For primary processing activities only:</p> <p>The food safety management statement must:</p> <p>(a) systematically identify the potential hazards that may be reasonably expected to occur in all food handling operations of the business;</p> <p>(b) identify where, in a food handling operation, each hazard identified under paragraph (a) can be controlled and the means of control;</p> <p>(c) provide for the systematic monitoring of those controls;</p> <p>(d) provide for appropriate corrective action when that hazard, or each of those hazards, is found not to be under control;</p> <p>(e) provide for the regular review of the statement by the food business to ensure its adequacy; and</p> <p>(f) provide for appropriate records to be made and kept by the business demonstrating action taken in relation to, or in compliance with, the food safety management statement.</p>	<p>Verification checks (e.g. internal audits, visual inspections, final product microbiological monitoring) have been made of the businesses food safety management operation to confirm they are operating as per the approved food safety management statement.</p>	<p>The business has evidence in its approved food safety management statement to inform where:</p> <p>- Corrective actions have been taken when necessary (e.g. description of actions for restoration of control, dealing with unacceptable produce, alternate process and monitoring controls in the event of weather damaged produce entering the processing premises, and prevention of recurrence).</p> <p>- Corrective action/s have been taken when necessary (e.g. description of actions for segregation and diversion of weather affected produce).</p>
<p>- Traceability</p> <p>Outcome – A system is implemented so that all melons sold or supplied to the horticulture processor are traceable to the producer that grew and harvested the melons.</p> <ul style="list-style-type: none"> • Invoices prepared for produce sold to processors indicating producer name and address. 	<p>Processor must maintain records of all melons sold or supplied (e.g. invoices, distribution logs).</p>	<p>The business has evidence in its approved food safety management statement to inform on verification checks conducted on supplier invoices so premises of origin for all melons is clear and accurate.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> Invoices prepared for product sold to other processors/retailers indicating processor name and address. If produce is received from multiple producers or from different production sites, records must be maintained to verify the source of origin of received produce. Melons sold or supplied by a processor are traceable back to the processor. Business develops a food recall plan to aid traceability. 		
<p>- Inputs Water (post-harvest only) Outcome – Chemical, physical and microbiological hazards associated with inputs are appropriately managed during primary processing so that melons are not made unacceptable.</p> <ul style="list-style-type: none"> Sanitisation chemicals used are appropriate as food grade sanitisers. Water sources: if non-potable water is used, it is frequently tested so that it is shown to be equivalent to potable water. In all instances use of potable water is preferred for primary processing operations. 	<p>- Potable (drinking quality) water is used to process horticulture produce, or records are maintained of the treatment of non-potable water, to ensure it is not a source of contamination for processed horticulture produce.</p> <p>- Business may need to demonstrate compliance to the relevant jurisdictional Safe Drinking Water Act.</p>	<p>The business has evidence in its food safety management statement to inform where:</p> <p>- Control measures (if applied) have been implemented and are monitored (e.g. sanitiser concentration logs).</p>
<p>- Premises, plant, equipment and transport Outcome – Systems are implemented to ensure that premises, equipment and transport vehicles used in the processing of melons do not present a source of contamination.</p> <ul style="list-style-type: none"> Premises, equipment and transport vehicles are designed, constructed, cleaned and maintained in an appropriate state. 	<p>Processing equipment is maintained in a clean, sanitary and functional state so it is not a source of potential microbiological, chemical or physical contamination for horticulture produce.</p> <p>Records of cleaning and sanitation programs are kept.</p>	<p>The business has evidence in its approved food safety management statement to inform on:</p> <p>- Appropriate controls and corrective actions for maintaining premises and equipment.</p> <p>- Evidence that the business is maintaining the premise and equipment so that it does not become a source of contamination.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> • Cleaning and sanitation programs are conducted in accordance with the approved food safety management statement on packing/processing shed/premises equipment and premises. • Harvesting containers are kept clean and well maintained so they do not introduce contamination onto harvested produce. • Vehicles used to transport harvested produce to a processor are maintained in a clean and functional state. 		
<p>- Transport of processed produce Outcome – Processed and packaged melons are transported in clean vehicles under temperature control to place of retail sale.</p>	<p>Approved Supplier agreements. Inspections of transport providers.</p>	<p>The business has evidence in its approved food safety management statement to inform on the appropriate transport of processed melons.</p>
<p>- Processing operations: pre-wash Outcome – Received melons are processed so they are fit for sale as a raw, ready to eat product.</p> <ul style="list-style-type: none"> • Pre-wash processing can involve any one of the following activities: <ul style="list-style-type: none"> - unload produce received from a producer - sorting (if automated, non-absorbent materials recommended - smooth rubber, plastics or steel which may be readily cleaned, sponge is not recommended) 	<p>Evidence is maintained that produce is appropriately sorted with unacceptable produce discarded.</p> <p>Evidence is maintained that automated sorting equipment is appropriately maintained (e.g. rubber is smooth, not cracked or broken).</p>	
<p>- Processing operations: washing and sanitising Outcome – Processing operations do not make melons unacceptable.</p>	<p>Processor is recommended to include the following (where relevant to the processing of melons) in the approved food safety management statement:</p> <ul style="list-style-type: none"> • Water used in processing operations: 	<p>The business has evidence in its approved food safety management statement to inform on:</p> <ul style="list-style-type: none"> - Effectiveness of the washing process in ensuring that the production system does not

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<p>These operations could include:</p> <ul style="list-style-type: none"> - pre-cooling - brushing - washing (maintaining surface temperature slightly higher than fruit surface temperature) - sanitising. <p>Washing and sanitising: Outcome – Must effectively wash and/or sanitise melons to ensure they are not unacceptable</p> <ul style="list-style-type: none"> a) removal of visible extraneous material; b) washing process to be validated as effective; c) sanitisation agent to be validated as effective. 	<ul style="list-style-type: none"> - Pre-wash rinse (removal of soil, debris) where there is a subsequent wash step should be E.coli<100 cfu/100mL. - Water used for washing and sanitising produce prior to packing for further sale and supply should meet E.coli<1 cfu/100mL. - Water for use in handwashing should be E.coli<1 cfu/100mL or else an alcohol-based hand sanitiser should be used. • Pre-cooling of produce (where appropriate) prior to sorting, rinsing, washing, sanitising is strongly recommended (suggested temp 5-8°C). • Dry dumping of produce is recommended over wet dumping (where appropriate). • Rinse water should be 5°C warmer than produce temperature to avoid excess water infiltration into the produce. • Sanitiser concentration in wash water: <ul style="list-style-type: none"> - Free chlorine: recommended as 200ppm free chlorine concentration for 1 min contact time, alternatively 100ppm free chlorine concentration for 2 mins contact time is also suggested. pH recommended to be between 6.5 – 7.0. - Peracetic Acid 80ppm for 2 mins, pH 7. - Chlorine Dioxide 5ppm for 2 mins. - These parameters must be reviewed for effectiveness in the event of weather events such as dust storms and heavy rain. • Automated sanitiser monitoring is recommended, with a routine check conducted every 30 mins. Otherwise manual checking of sanitiser concentration is required. 	<p>produce unacceptable product.</p> <ul style="list-style-type: none"> - Effectiveness of the sanitising agent and the load of the sanitising agent applied to ensure that the production system does not produce unacceptable product.

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
	<ul style="list-style-type: none"> • Post-process cooling of produce. Cooling to 5°C is recommended. • Any weather damaged stock is washed and sanitised last to minimise risk of cross contamination with non-weather damaged stock. 	
<p>- Processing operations: post wash, fungicide treatment, drying, cold storage, chopping, packing</p> <p>Outcome – Washed and sanitised melons are not made unacceptable by subsequent handling and processing operations.</p> <ul style="list-style-type: none"> • Fungicides selected are appropriate for use, e.g. imazalil and guazatine, potable water is used to prepare fungicide treatments, temperature of fungicide solutions – hot solution is preferred (55°C). • Fungicide tanks are cleaned and sanitised as part of the cleaning and sanitising schedules. • Following treatment, melons are appropriately handled prior to placing in cold storage (5°C) until moved on in the supply chain. • If melons are cut and/or chopped at the processor, these processes are conducted to avoid the risk of product becoming unacceptable (e.g. surfaces and cutting equipment are kept in a clean and sanitary state). • Packing of melons is conducted using appropriate packaging materials. • Should produce be co-mingled, appropriate records are maintained by 	<p>The processor maintains appropriate evidence of:</p> <ul style="list-style-type: none"> - Fungicide used - Temperature of solution used to apply fungicide treatment - Cleaning and sanitation records for the fungicide tank - Temperature/data logger records for chiller - Cleaning and sanitation records for chopping and cutting equipment 	<p>The business has evidence in its approved food safety management statement to inform on effectiveness of the fungicide treatment process in ensuring that the production system does not produce unacceptable product.</p>

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
the processor.		
<p>- Animals and Pests Outcome – Packing sheds, and other areas around primary processing areas are designed, constructed and maintained in such a way to prevent the entry of vermin and other wild or domestic animals onto premises. Excess waste around primary processing areas should be removed to prevent attraction of pests.</p> <ul style="list-style-type: none"> • Appropriate pest and vermin programs and practices and treatments are followed to prevent the contamination of horticulture produce in primary processing areas. • The location of bait stations and traps is known and they are appropriately maintained. • Domestic and wild animals should not be permitted to enter primary processing areas. 	<p>- Areas used to process horticulture produce are clearly marked with appropriate programs implemented to prevent the entry of pests, vermin, wild and domestic animals.</p>	<p>The business has evidence in its food safety management statement to inform on the effective operation of pest control systems, and corrective actions.</p>
<p>- Skills and knowledge Outcome – Personnel have the necessary level of skills and knowledge of food safety and hygiene associated with processing of horticulture produce.</p> <ul style="list-style-type: none"> • Staff required to demonstrate competency. 	<p>Pre-start induction / staff training. Appropriate training provided (may be internal or external).</p>	<p>The business has evidence in its approved food safety management statement to inform on:</p> <ul style="list-style-type: none"> - induction records - training records
<p>- Health and hygiene Outcome – Personnel and visitors use appropriate health and hygiene practices to minimise contamination of melons.</p> <ul style="list-style-type: none"> • Processor personal hygiene and food handling practices are followed during the processing of melons. 	<p>Pre-start induction / staff training. Health and hygiene policies. Assessment of staff practices.</p>	<p>The business has evidence in its approved food safety management statement to inform on how:</p> <ul style="list-style-type: none"> - it ensures that staff affected by human health illnesses do not become a source of contamination for melons. - staff are excluded from food handling activities when ill.

Compliance requirement - Industry	Monitoring requirements - Industry	Monitoring requirements - Government
<ul style="list-style-type: none"> • Packing sheds are equipped with soap and potable water (or equivalent) for washing hands. Similarly, soap/water is available at staff rest room amenities. • Persons displaying visible symptoms of, or known to have, communicable illness are excluded from food handling operations in packing/processing sheds/premises. • Persons handling produce in packing/processing sheds/premises are suitably dressed to minimise the opportunity for produce to become contaminated. 		
<p>- Sale and supply Outcome – Unacceptable melons are not sold or entered into the supply chain as food for human consumption. Product suspected as being unacceptable at the time of harvest or receipt by a processor (e.g. affected by a weather event) is separated from other harvested produce, and either:</p> <ul style="list-style-type: none"> i) disposed of; or ii) processed separately from un-affected melons; and iii) diverted to another supply chain (e.g. animal feed). 	<p>Melons that have been subject to a weather event (e.g. dust storm, immersed in flood water) are separated from other harvested horticultural produce, and managed in a way to reduce the food safety risks.</p>	<p>The business has evidence in its approved food safety management statement to inform on the appropriate handling and processing of weather affected produce that ensures that unacceptable melons are not sold or entered into the human food supply chain.</p>

Reference materials for Hort production:

Guidelines for Fresh Produce Food Safety 2019.

<https://fpsc-anz.com/food-safety-guidelines-2019/>

Freshcare Food Safety and Quality Standard Edition 4.1 (July 2019)

<https://www.freshcare.com.au/wp-content/uploads/Freshcare-Food-Safety-Quality-Standard-Edition-4.1-July-2019.pdf>

Melon Food Safety – A best practice guide for rockmelons and specialty melons

https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0020/1179011/Melon-food-safety-best-practice-guide.pdf

3. Proposed Guidance Document - Berries

This proposed guidance document is a draft only and are provided to assist stakeholders understand how the proposed Standard – if approved in its current form – may be implemented by jurisdictions. This document is subject to any changes that may occur as a result of the 2nd CFS, or in the standards development and/or consistent implementation process.

Comments on this proposed guidance document are welcomed.

Introduction

What is the purpose of this document?

The Australia New Zealand Food Standards Code - Primary Production and Processing Standard for Berries (Standard 4.2.7) has been developed by Food Standards Australia New Zealand (FSANZ) and is nationally enforceable across Australia.

This document has been developed to assist Berry Producers and Processors demonstrate how your business meets the relevant requirements. It is not a mandatory requirement for your business to complete this document. It offers guidance and advice for assisting your business meet the obligations of Standard 4.2.7.

Contents

SECTION 1: Business Particulars

SECTION 2: Traceability

SECTION 3: Inputs

SECTION 4: Premises and Equipment

SECTION 5: Skills and Knowledge

SECTION 6: General Food Safety Requirements

SECTION 7: Sale or Supply of Unacceptable Berries

Note. Businesses undertaking retail sale of berries to consumers are required to continue to comply with Standards 3.2.2 and 3.2.3 of the Australia New Zealand Food Standards Code.

Business Details

Name of business: _____

Trading name (if applicable): _____

Name of proprietor or designated representative: _____

Address of business: _____

Location/s of production: _____

Business phone: _____

Email: _____

SECTION 1: Business Particulars

Please indicate below the type(s) of berries you produce and/or process and how much of each type you produce and/or process per week.

Types of Berries	Volume packed per week	Typical batch size (if different to volume packed per week)

Please indicate below the Berry production or processing activities you undertake (tick all that apply).

<input type="checkbox"/>	Grow Berries	<input type="checkbox"/>	Combining Berries
<input type="checkbox"/>	Wash Berries	<input type="checkbox"/>	Packing Berries
<input type="checkbox"/>	Trimming Berries	<input type="checkbox"/>	Sanitising Berries
<input type="checkbox"/>	Chopping Berries	<input type="checkbox"/>	Transport Berries
<input type="checkbox"/>	Receive Berries for further processing	<input type="checkbox"/>	Sorting Berries
<input type="checkbox"/>	Other:	<input type="checkbox"/>	

Who do you supply your product to? (tick all that apply)

<input type="checkbox"/>	Own retail shop	<input type="checkbox"/>	Small retailers (e.g. fruit barns)
<input type="checkbox"/>	Wholesalers	<input type="checkbox"/>	Large retailers (e.g. Coles / Woolworths)
<input type="checkbox"/>	Secondary processors (e.g. manufacturers)	<input type="checkbox"/>	Local pubs/clubs (i.e. RSL)

<input type="checkbox"/>	Farmers markets	<input type="checkbox"/>	Restaurants/cafes
<input type="checkbox"/>	Other:	<input type="checkbox"/>	

What areas do you supply your product to? (tick all that apply)

<input type="checkbox"/>	Local area	<input type="checkbox"/>	Interstate
<input type="checkbox"/>	Around the State	<input type="checkbox"/>	Export

SECTION 2: Traceability

Describe how you intend to trace product through each stage of processing and supply and how you plan to manage food recalls. Include the records you maintain to ensure all product can be identified from whom berries were received, and to whom Berries were supplied. Also describe the information applied to the product label to facilitate traceability and food recall operations.

SECTION 3: Inputs

Water

Describe how your business ensures water, used at all stages of processing, is of suitable quality and does not make Berries unacceptable. Include details of the evidence the business maintains to verify this.

SECTION 4 : Premises and Equipment

Describe how your premises and equipment (layout, fixtures, structure, infrastructure and transportation vehicles) minimise the opportunities for contamination of Berries.

Cleaning, Sanitising and Maintenance of Premises and Specific Equipment

Describe how your business manages the cleaning and sanitising of the processing room environment and specific equipment used in berry processing.

SECTION 5: Skills and Knowledge

Describe the training systems employed by your business to ensure staff involved in the production and processing of Berries are competent in food safety and hygiene practices? Include the evidence your business maintains to verify training and competencies.

SECTION 6: General Food Safety Requirements

Health and Hygiene of Personnel and Visitors

Describe the personal hygiene practices your business implements to manage potential contaminants being introduced by visitors and persons involved in production, processing and product handling activities.

SECTION 7: Sale or Supply of Unacceptable Berries

Describe how your business manages non-conforming and waste products. Give specific details of the actions in place to identify, isolate and manage non-conforming product and notify Safe Food and/or suppliers and customers.

