

Fresh Produce Risk Assessment Guide

Primary Production and processing of Leafy Vegetables and Melons

The guide is designed to assist Local Government authorised officers conducting assessments of leafy vegetable and melon grower farms and primary processing facilities.

How to use this guide:

- Use the checklist as a reminder of the risk reduction measures to verify during your facility assessment.

Activities covered by the Standards:

The horticultural standards apply to the following activities:

- Producers – Growing and or harvesting
- Processors
 - Washing
 - Trimming
 - Sorting
 - Sanitising
 - Storing
 - Combining harvested products
 - Packing
 - Transporting products between primary processing premises

The horticultural standards do not apply to the following activities:

- Retail sale
- Manufacturing (cooking, freezing, drying, preserving, blending, juicing, addition of other foods to harvested products)

Prior to your on-farm assessment:

- Check for the grower's biosecurity arrangements and ensure you can comply with the farm's biosecurity requirements for external visitors. These typically include:
 - Clothing, footwear and vehicles are clean and free from dirt, plant material, pests and weed seeds.
 - Not suffering from gastroenteritis or diagnosed respiratory disease.
 - Having not travelled overseas within a specified number of days.
 - Specific entry points and parking locations for vehicles

In the event of a biosecurity alert issued by DPIRD ensure you have the following PPE prepared:

- P2 mask to minimise the inhalation of dust.
- Hooded coveralls.
- Heavy-duty boot covers.
- Safety boots that can be dipped in a disinfectant solution. (Clean and scrub soles before going to farm)
- Gloves and hand sanitiser.

DOH strongly recommends authorised officers wear safety boots onto the farm to prevent injury.

A good time to schedule your inspection is after completion of the day's harvest.

1. Pre-harvest
a. Growing Areas

Risk assessment	Comment / Risk mitigation	Complies ✓ not comply ✗
Traceability		
Areas within growing sites identifiable for traceability	Crop markers used to record inputs, chemical use, harvest dates etc Produce from separate growing areas can be traced (larger farms).	
Inputs – seed, seedling, soil, fertiliser & water		
Irrigation water	Dam (high risk), bore/rainwater (med risk) or scheme (low risk) used for irrigation. Open catchment dams and uncapped bores pose a high risk. Is water tested annually for faecal coliforms and chemical composition? Irrigation lines marked to prevent use for post-harvest use. On-site septic systems a minimum 30m away from bores. No pooling of wastewater or waterlogged disposal areas. No breaks or leaks in irrigation lines or bore heads (contamination points). Drip systems reduce the risk of cross contamination prior to harvest. Water security e.g. open dams protected from animal intrusion and run-off.	
Soil amendments (Fertiliser, compost & manure)	Stored away from crops to prevent run-off and cross contamination. Covered to prevent access or contamination from animals. Compliant with AS4454-2012 Composts, soil conditioners and mulches. Q.A. for other amendments such as agricultural teas available. If untreated manures are used, a withholding period of 90 – 120 days is allowed before harvest.	
Pesticides	AgVet chemicals approved for crop. Applied in accordance with label to comply with MRLs in Food Standards Code. ChemCert training completed (not mandatory but recommended). Spray equipment cleaned after use. Suitable area available for cleaning spray equipment to prevent contamination of buildings, produce or soil. Spray equipment routinely checked/calibrated.	
Seeds and seedlings (leafy vegetables only)	Quality assurance documentation provided by supplier to verify microbial quality.	
Growing sites		
Immediate surrounds	Clean and tidy. No evidence of pest or animal infestation. Do activities on neighbouring properties pose a risk? E.g. animal grazing. Procedures in place to prevent spray drift from neighbouring properties.	
Risk assessment	Has the grower considered and adequately managed risk from the following: <ul style="list-style-type: none"> - Chemical - Physical - Biological 	
Historical use	Risk of contamination from previous land use such as animal production, feedlots, poultry production or rubbish disposal or storage.	
Biosecurity	Biosecurity protocols in place for human and vehicular traffic. Growing areas are secured and fenced off to prevent unauthorised entry by humans and animals	
Waste	Waste materials are adequately stored on site and disposed of appropriately.	

	Equipment and vehicles used to transport waste cleaned after use.	
Weather events		
Rain and flooding	Markers used to delineate high water line area of growing areas affected by flood water. A minimum of 60 days provided before replanting flooded areas.	
Severe storms / climate	Measures considered for the following: <ul style="list-style-type: none"> - Dust storms: Increased risk of microbial contamination - Hailstorms: Increased risk of damage and microbial contamination - Fires: Increased risk of wildlife attraction to water sources 	
Premises & Equipment		
Designated storage areas	Sufficient space is provided to prevent equipment being contaminated or posing a risk of contamination to produce or other equipment.	
Toilet facilities for in-field workers	Portable toilets are raised off the ground and connected to suitable disposal systems. Toilets are located to encourage use. Toilets in working order. Toilets are clean. Toilets are adequately stocked. Hand washing/sanitising facilities	
Animals & Pests		
Animals & wildlife	Inspections conducted of growing areas for evidence of animal contamination. Growing areas showing evidence of animal intrusion marked.	
Pest control	Only licensed pest controllers used if external contractors are engaged. Bait station map available. Bait stations secure and records of station checks conducted.	
Health & Hygiene of personnel and visitors		
Clothing	Jewellery and personal items kept away from crops	
Gloves	Reusable gloves able to be/are washed and sanitised daily. Disposable gloves used appropriately and changed as required.	
Food & drink	No food or drink (other than sealed bottles) brought into growing areas.	
Illness	Staff prevented from working when ill. Wounds covered with coloured band aids / bandages.	

b. Sheds

Risk assessment	Comment / Risk mitigation	
Inputs – seed, seedling, soil, fertiliser & water		
Water	Dam (high risk), bore/rain (high/med risk) or scheme (low risk). Open catchment dams and uncapped bores pose a high risk. Is water tested annually for faecal coliforms and chemical composition? Irrigation lines marked to prevent use for post-harvest use. Water quality suitable for intended use.	
Soil amendments (Fertiliser, compost & manure)	Stored away from crops, produce storage areas and processing areas to prevent run-off and cross contamination. Covered to prevent access or contamination from animals.	
Pesticides	Adequately stored to prevent cross-contamination and run-off Safety Data Sheets available	
Seeds and seedlings (leafy vegetables only)	Seeds and seedlings adequately protected from contamination.	
Premises & Equipment		
Designated storage areas	Storage minimises harbourage areas for pests, reduced cross-contamination risk and facilitates cleaning.	

Toilet facilities	Toilets in working order and clean. Warm water, soap and paper towels available at hand basin (in areas where food is handled). Lockers provided for staff personal belongings	
Produce	Produce protected from contamination and pests if stored in shed.	
Waste	Suitable receptacle condition and number.	
Chemicals	Chemicals stored away from food. Bunding and covers provided for chemicals.	
Maintenance	Dedicated area provided for equipment maintenance away from food and packaging storage areas.	
Wash area	Water quality fit for purpose. Wastewater discharged appropriate and no risk of cross contamination.	
Animals & Pests		
Animals & wildlife	Sheds secure and animals (pets and wildlife) excluded.	
Pest control	Only licensed pest controllers used if external contractors are engaged. Bait station map available. Bait stations secure and records of station checks conducted.	

2. Harvest

Risk assessment	Comment / Risk mitigation	
Traceability		
Crates / bins traceable	Produce from separate growing areas can be traced (larger farms). Bins and crates marked to track batches	
Inputs – seed, seedling, soil, fertiliser & water		
Pesticides/Herbicides	Withholding periods tracked and pesticide applied in accordance with label to comply with MRLs in Food Standards Code.	
Irrigation water	Harvest delayed for minimum 48 hours following irrigation with untreated water. Drip systems in use to reduce risk of cross contamination prior to harvest.	
Weather events		
Rain and flooding	Bins kept off ground if harvesting in muddy conditions to prevent contamination.	
Severe storms	Produce not harvested from flood affected areas.	
Premises & Equipment		
Bins and crates	Return crates are clean and undamaged.	
Harvest equipment	Knives and other harvest equipment well maintained and subjected to cleaning and sanitising regularly during harvest. Equipment does not pose a contamination risk e.g. snap off blades. Type of sanitiser used and application method when sanitising equipment appropriate. Knives and equipment accounted for daily to reduce risk of physical contamination	
Toilet facilities	Toilets in working order and clean. Warm water, soap and paper towels available at hand basin (in areas where food is handled).	
Temperature of harvested produce		
Cooling product	Water, ice and/or shading used directly or indirectly to maintain quality. If used for direct chilling, water and ice of a potable quality. Harvesting conducted in cooler periods of the day.	

Animals & Pests		
Animals & wildlife	Inspections conducted of growing areas for evidence of animal contamination. Growing areas showing evidence of animal intrusion marked and no harvesting from affected areas.	
Pests	Visual inspection of produce during harvest for insects, reptiles, molluscs and physical hazards. Contaminated produce not harvested or separated for extra cleaning and sanitising.	
Skills & knowledge		
Training	Basic food hygiene training provided to staff.	
	Register of staff training kept and refreshed training provided on a regular basis.	
Health & Hygiene of personnel and visitors		
Clothing	Clean clothing worn daily during harvest.	
Gloves	Reusable gloves washed and sanitised daily. Disposable gloves used appropriately and changed as required.	
Hand washing	Access to suitable hand washing facilities available. Access to hand sanitiser available.	
Illness	Staff prevented from working when ill. Wounds covered with coloured band aids / bandages.	
Food & drink	No food or drink (other than sealed bottles) during harvest.	

3. Post Harvest

a. Processing facilities

Risk assessment	Comment / Risk mitigation	
Traceability		
Crates / bins traceable	Bins and crates marked to track batch details. Stored products suitably labelled. Multiple labels per bin may be required when produce from different growing areas at the site are combined.	
Premises & Equipment		
Adequate facilities	Processing facilities comply with FSS 3.2.3 Hand washing facilities provided and stocked with soap and paper towels. Processing equipment fit for purpose (sealed, constructed of suitable material and able to be effectively cleaned) and maintained in a clean condition. Separate areas provided for storage (food, packaging, chemicals, equipment), maintenance, equipment washing and produce processing. Equipment and produce adequately stored when not in use (off floor, protected from contamination and covered). External areas of facility maintained in a clean, weed and pest free condition. SOPs available for cleaning. Staff trained in cleaning and sanitation. Cleaning checklists/schedules used. Waste receptacles available and maintained in a clean condition. Processing areas not used to store items that pose a cross-contamination risk. Facility layout facilitates easy cleaning of premises and equipment e.g. floor drains to direct wastewater to suitable onsite disposal systems.	

Toilet facilities	Toilets in working order and clean. Warm water, soap and paper towels available at hand basin (in areas where food is handled). Lockers provided for staff personal belongings	
Temperature of harvested produce		
Cooling	Sufficient refrigeration available to chill produce. Coolroom evaporators clean and free from mould. Coolroom condensate discharged directly into drains (Listeria risk).	
Animals & Pests		
Animals & wildlife	Facility sealed to prevent entry by birds, reptiles and rodents. Pets not permitted in processing areas.	
Pests	No evidence of pest infestation. Only licensed pest controllers used if external contractors are engaged. Bait station map available. Bait stations secure and records of station checks conducted.	
Washing & sanitising of harvested produce		
Pre-wash water	Pre-wash water used <100 CFU E. coli/100ml. If pre-wash water used, post wash conducted immediately afterwards. Water used for pre-wash does not pose a contamination risk to produce or equipment. Wastewater adequately disposed of. Recycled wash water increases risk and requires appropriate risk management e.g., filtration, additional sanitisation.	
Final rinse water	Water used for final wash of a potable nature (<1 CFU E. coli/100ml). Equipment used for washing and sanitising produce clean and well maintained. Water stored on site protected from contamination and tank cleaned and disinfected at least annually If sourced other than from scheme, annual test conducted for faecal indicators (this may be something LGs could offer via PathWest) If disinfection system used, is system effectiveness verified. Hoses used for final rinse in good condition. It is preferable to not disconnect hoses as this poses a contamination risk.	
Sanitising produce	Type of sanitiser used for water treatment appropriate. Type of sanitiser used for food contact equipment appropriate. Type of sanitiser used for produce appropriate. Concentrations used documented and as per manufacturer specifications. Contact time appropriate. Sanitising process is verified and validated. Has an approved supplier assisted with the water sanitisation system?	
Skills & knowledge		
Training	Basic food hygiene training provided to staff.	
	Register of staff training kept and refreshed training provided on a regular basis.	
Health & Hygiene of personnel and visitors		
Clothing	Clean clothing worn by processing staff. Jewellery removed or secured to eliminate contamination risk.	
Gloves	Reuseable gloves washed and sanitised daily. Disposable gloves used appropriately and changed as required.	
Hand washing	Staff washing hands appropriately.	
Illness	Staff prevented from working when ill. Wounds covered with coloured band aids / bandages.	
Food & drink	No food or drink in processing area.	

b. Transport (on and off farm)

Risk assessment	Comment / Risk mitigation	
Traceability		
Product traceability	Bins and crates labelled with business name, site, date/time of harvest, product name & suppliers. Written records/documentation available to track sourced products. Records kept indicating who products are supplied to.	
Premises & Equipment		
Adequate facilities	Vehicles maintained in a clean condition e.g. forklifts, pallet jacks, vehicles. Routine cleaning of transport equipment conducted. Cleaning schedule for vehicles available. Vehicles cleaned between use on farm and post processing. Suitable covers available to ensure produce is covered during transportation.	
Temperature of harvested produce		
Transport temperature	Refrigerated vehicle temperature checked and recorded. If produce not transported under refrigeration, consideration is given to the time of day produce is transported as well as the time taken to transport produce.	