	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

1.0 PURPOSE:

To keep Eurofins BOP Workers safe on orchards. This document outlines Eurofins BOP Health and Safety policies and procedures on orchards and to give clarity and definition around the circumstances on orchards that are not considered safe in the context of the work we do.

2.0 SCOPE:

Eurofins BOP Health and Safety policies and procedures as they relate to orchards.

3.0 DEFINITIONS:

Orchard Representative:

Is the person responsible for managing health and safety on orchards on a day to day basis and will be the main person Eurofins BOP can communicate with on health and safety related matters on orchards including access, risks, and emergency procedures. This may be the Grower, an Orchard Manager, a Packhouse contact, a 'Primary Contact' or CRM. This person must be able to either remedy any risks or hazards directly or work directly with e.g. a Grower/Orchard owner to achieve the same.

The person listed as a 'Primary Contact' within the Eurofins BOP system will be the assumed orchard representative. Please ensure details are accurate or where different, please let us know: EBOP_ServiceDesk@eurofins.com or 07 549 1044.


4.0 DOCUMENTS:

4.1 ASSOCIATED DOCUMENTS

- 4.1.1 Avocado Orchard Health and Safety Sampling Standard
- 4.1.2 Avocado Orchard Stop Sampling Procedures

4.2 REFERENCE DOCUMENTS

- 4.2.1 Kiwifruit Orchard Stop Sampling Procedures
- 4.2.2 Eurofins Health and Safety Policy
- 4.2.3 Risk Register: Travel/Orchard Sampling
- 4.2.4 Hazard Identification and Risk Management Procedure
- 4.2.5 Emergency and Evacuation
- 4.2.6 Accidents, Incidents and Notifiable Events
- 4.2.7 Lone Worker Policy
- 4.2.8 Zespri Crop Protection Standard
- 4.2.9 Bullying, Harassment & Discrimination Policy and Procedure
- 4.2.10 Vehicle Safety Check Form
- 4.2.11 Fleet Maintenance Plan
- 4.2.12 Quad Maintenance Checklist
- 4.2.13 Kiwifruit Sample Collection SOP

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

5.0 PROCEDURE:

5.1 Eurofins Health and Safety Policy

The purpose of this policy is to provide an overarching framework that demonstrates Eurofins BOP commitment to health and safety in the workplace. This document is available on the Eurofins BOP website.

5.2 Risk Management Strategy

Risk management at Eurofins BOP is achieved through a systematic and iterative process of identifying and assessing risks in our workplace, eliminating or minimising those risks, monitoring risk controls, and reviewing their effectiveness. This process is comprehensively detailed in the document Hazard Identification and Risk Management Procedure and is articulated in Risk Registers.

5.3 Collectors Reports, Risk Assessment (RECON) and reporting Hazards and Stop Sampling

Collectors Reports

Access information, risks and their controls on orchards can be communicated to Eurofins BOP by any interested party e.g. Orchard Representatives, Growers or Grower Representatives, Packhouses or Orchard Managers through the Eurofins BOP website. This information is articulated on collection reports and sometimes orchard maps for hazards (or terrain features) that cannot be changed e.g. ponds, power lines, rivers, steep banks etc.


Samplers are required to follow the health and safety information pertaining to that orchard detailed on the collectors report and/or upon arrival at an orchard e.g. hazard board.

Orchard Arrival Instructions

On arrival at orchards, Samplers are to park and unload sampling vehicle (if applicable) in the load-out area unless otherwise instructed, or indicated on the Orchard Map provided. Refer to the document - the Kiwifruit Sampler training manual. If in doubt about safety at loading bays and turning areas, park on the roadside if it is safe to do so. It is much easier to manoeuvre a sampling vehicle than a car and trailer. Refer to the document - Kiwifruit Sample Collection SOP.

Risk Assessment (RECON)

On entering orchards, Eurofins BOP samplers will carry out a risk assessment (RECON) prior to sampling. The purpose of this RECON is to subjectively evaluate the significant risks that may be encountered during sampling activities and runs in parallel with the gap counting process. It is NOT designed to evaluate every risk on orchards or to evaluate all areas of the orchard. It is designed to give the sampler an impression of the orchards safety and suitability for

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

sampling either on foot or sampling vehicle in the areas the sampler is working. Safety is dynamically evaluated for each block. Hazards can be reported as part of this process and stop sampling may apply.

Hazard Reporting

Samplers are also trained to assess risk whilst on orchards acknowledging that orchards are dynamic work environments and a shared workspace with multiple contractors. Samplers identify hazards on orchards through the in-house software app Tracking 3. Photos are taken for most hazards. Reported hazards are then communicated to the Orchard Representative e.g. Packhouse Representative, Grower, Orchard Manager as provided. Any new orchard hazards can be added to the collectors report. Eurofins BOP has appreciated Orchard Representatives assistance investigating and remediating hazards reported over the 2018 season.

Stop Sampling

Where an orchard is considered unsafe for sampling due to unmitigated health and safety risks (in line with details given under commonly encountered risks and controls below) the Kiwifruit Orchard Stop Sampling Procedure will be followed.


Orchard Representatives, Packhouses or other interested parties are welcome to use the Eurofins BOP Stop Sampling process in order to prevent sample requests and as a tool to prevent access onto orchards.

For most reported hazards and stop sampling scenarios, samplers are expected to take photos that clearly represent the extent and nature of the hazard. It is not acceptable for Samplers to overstate hazards, provide photos that are not representative of the hazards encountered or to take photos of hazards in areas on orchards that samplers do not operate. Samplers will be issued a reference tool that allows e.g. grass length to be measured and reflected accurately in photographs.

5.4 Eurofins Sampler Training and Equipment

Eurofins BOP invests significant resources and effort into training Eurofins BOP Samplers to carry out sampling activities. All training is carried out through an integration of theoretical, practical and buddy assessment. This includes a combination of classroom-based in-house training, field based on the job training and supervision. Proficiency, knowledge and expertise is assessed through sampler audits and the Training and Competency Matrix. All Samplers are trained in the use of sampling vehicles before they are sent onto an orchard by Drivezone, whose instructors are fully qualified and Registered Assessors, with additional qualifications in Adult Education and "I Endorsement". Drivezone provide training to OSH and NZQA Unit Standards level. Retraining for sampling vehicles is performed every 4 years. In addition, all Samplers will complete annual refresher driver training for all vehicles including but not limited to quad bikes, other sampling vehicles, cars and trailers

Samplers carry out and record safety checks on Eurofins BOP equipment before going onto orchards using the Vehicle Safety Check Form. All Eurofins BOP vehicles receive continual

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

preventative maintenance and are serviced prior to the maturity clearance season using the Fleet Maintenance Plan and Quad Maintenance Checklist.

5.5 Eurofins Sampler Equipment (PPE)

All Eurofins BOP Samplers are equipped with the latest in lone worker technology using the Loner Bridge System, M6 or similar which communicates continuously with our Operational Services team and can be activated if a fall is detected, there is no motion or in the event of an emergency. Where a sampler does not have Lone Worker technology issued, they will operate under the secondary safe work system as detailed below.

Samplers working in very remote areas are also issued Personal Locator Beacons (PLBs)

Samplers must wear high viz vests, helmet and face/eye protection (when vehicle sampling), carry a working cell phone, (also used to track samples and Samplers), a charging backup facility, flagging tape to mark any on-orchard hazards, their Loner device, PLB (as required) and a first aid kit in their cars when conducting sampling.

5.6 Lone Worker Procedures

Eurofins BOP operate a primary, secondary (text/call in/out of orchards where lone working technology has not been issued) and tertiary safe work system (personal locator beacons for lone workers operating in very remote locations or out of cellphone range. A copy of this procedure can be made available on request.


Eurofins BOP Operational Services team continuously monitor Loner technology which links to GPS and works independently of cell phone coverage. Eurofins BOP operate a clearly defined protocol to follow in the event of a device being activated or if contact is lost with a Sampler within a specified time period (available on request).

Phones also have an additional GPS tracking facility installed (Tracking 3) which is monitored by Operational Services and linked to the sampling process but may also be used as a safety backup system.

5.7 On Orchard Communications Strategy with Primary Contacts

Eurofins BOP will send a text message to the Orchard Representative the day prior to sampling indicating the date sampling will occur and asking for any additional risks to be communicated to Eurofins BOP. It is the Orchard Representatives responsibility to ensure the correct details are entered into our system.

Where a grower or Orchard Representative has requested a call prior to sampling, but that contact person (or persons) cannot be reached, or if the Sampler is unable to locate the hazard board/sign in book on arrival, the Sampler will call the Operational Services team to discuss the matter. If Operational Services cannot contact a person connected to that orchard within 15 minutes, sampling may be cancelled and a collection fee will still be applied.

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

Where a Sampler is not in cell phone range (this applies in areas such as Te Kaha, Mohaka for example), Eurofins BOP will use best efforts to contact an Orchard Representative. Note in these circumstances ticking the requirement 'call Orchard Representative' prior to sampling is not recommended. If Eurofins BOP try to communicate with an Orchard Representative prior to sampling and are unable to get in contact, then we would be unable to sample the orchard as specified in the Kiwifruit Orchard Health and Safety Sampling Standard.

5.8 Emergencies, Accidents, Incidents and Near Miss Event Reporting and Investigation

Eurofins BOP have procedures in place to ensure all emergencies, accidents, incidents and near miss events are appropriately recorded, investigated, managed and reviewed. This procedure can be made available on request.

5.9 Commonly Encountered Risk and Controls

This is not an exhaustive list to cover all circumstances encountered on orchards, rather a selection of commonly encountered risks and their controls, focusing on when stop sampling procedures may apply in order to protect our Samplers.

Refer to the document: Kiwifruit Orchard Stop Sampling Procedures for this process.


Eurofins BOP expect our samplers to stop sampling where the following circumstances are encountered. A description of each circumstance is covered under the headings below:

- Dropped fruit on the ground
- Long grass
- Collapsed structures
- Spraying
- Curtains
- Reflective mulch or 'Extenday'
- Holes
- Shelter belt trimmers
- Loose wires, guy wires, tee pee strings, nooses at row ends or through canopy
- Aggressive/violent growers/orchard contacts or contractors

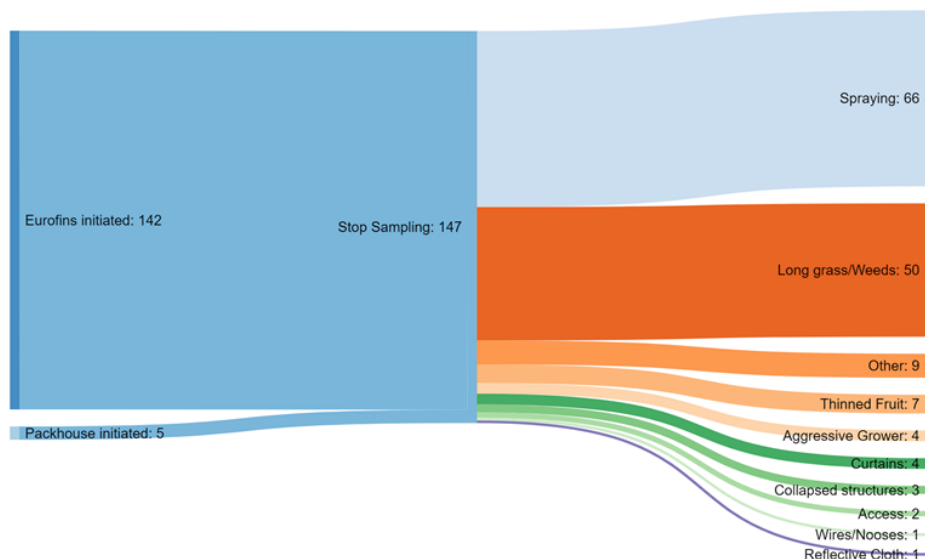
Note1: In all instances where the sampler visits the orchard and a sample is unable to be taken, a sample collection fee will apply.

Note2: The stop sampling procedures below apply regardless of sampling method i.e. sample vehicle or foot, unless otherwise stated.

The graphs below show the common hazards encountered during the 2018 sampling season and the reasons for stop sampling.

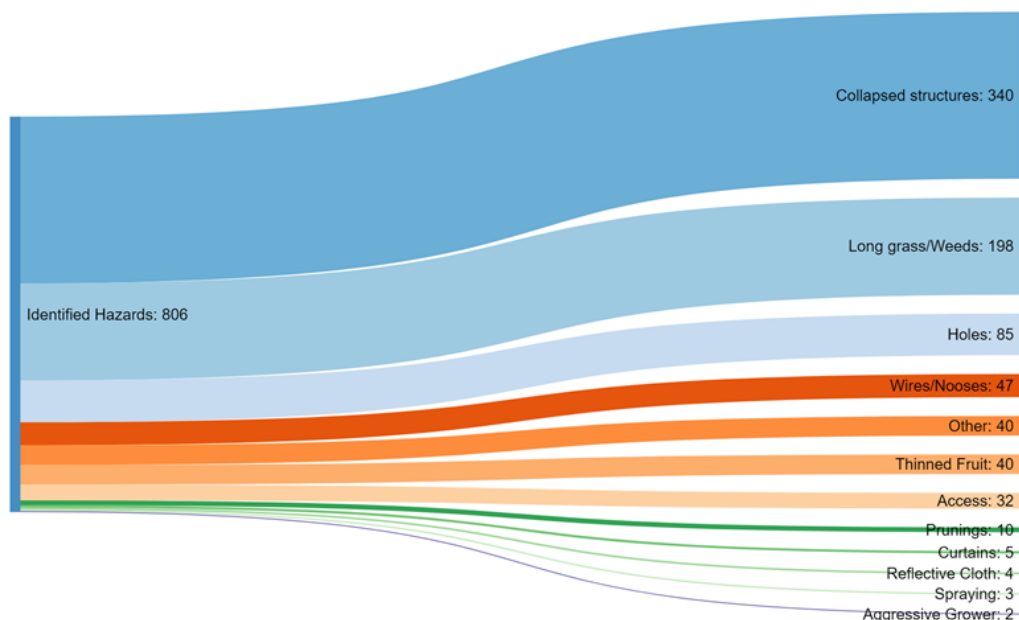
	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

Stop Sampling 2018



Stop Sampling instances by theme, 2018


Hazard identification



Hazards Identified, 2018

Dropped fruit on the ground

Significant amounts of thinned fruit on the ground increases the likelihood of slips, trips and falls, particularly when very hard early in the season or especially soft. The risk is heightened

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

when presented in combination with fruit and reflective cloth, wet conditions and sloping terrain. Where vines have been e.g. thinned recently and there is a significant amount of fruit on the ground, Foot Samplers will stop sampling and call Operational Services to discuss. A sample may need to be rescheduled in this instance and a collection fee will apply.

Long grass


Long grass restricts the visibility of the terrain i.e. slopes, holes, debris, fallen structures etc. These cannot be easily seen by our Samplers in long grass and increases the risk of slips, trips and injury (e.g. broken/sprained limbs) on foot and increases the risk of a sample vehicle tipping/rolling.

Grass should be mown in the areas sampling activities are to take place (including headlands and access ways) prior to a sample request. This is also an opportunity for Growers/Orchard Managers etc. to review and report any significant hazards on orchards prior to sampling commencing.

Where a Sampler arrives and the grass/weeds sward length is over 30 cm in length in the areas where the sample is required (including access/headlands), a sample will not be taken. As above, the Sampler will take photos of the area(s) of concern and call Operational Services to discuss. Stop sampling procedures may then apply.

Note: The above does not apply to spray strips under leaders or areas where samplers will not be travelling/accessing.

Examples of unacceptable grass/weed length:

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	



Collapsed Structures

Collapsed and damaged structures on orchards increases the risk of head, neck and eye injuries to our Samplers if struck while carrying out sampling activities. Collision with any propped structures may result in the canopy collapsing on top of our Sampler who may be crushed under its weight.

Samplers must stay at least one bay width from the start of a collapsed canopy/structure or a prop holding up structures due to the uneven displacement of loads under the canopy. This should be marked with flagging tape if possible, photographed and reported/sent via tracking 3 or to Operational Services directly.

Where more than 20 percent of the maturity area canopy has collapsed, structures damaged or propped, stop sampling procedures will apply as this will affect the Samplers ability to complete a representative and safe sample. In this instance, samplers will call Operational Services to discuss and confirm with the Orchard Representative.

If avoiding the collapsed structure/props results in the sample not being representative of the Maturity Area, Eurofins BOP will advise Zespri who will determine how the Maturity Area will be sampled. Where significant canopy collapse has occurred, it is the responsibility of the Orchard Representative to define and communicate visually e.g. by barriers/tape the go/no go areas that are safe to work under canopy.

Examples of unacceptable/unsafe structures




Spraying

Exposure to agricultural sprays and residues can be harmful to the health of our Samplers and may result in both acute and chronic effects. Eurofins BOP risk mitigation strategy is based on the precautionary principle and considers all workers in our supply chain e.g. from Samplers to Lab Staff that may also be exposed to spray residues.

It is the responsibility of the sample requestor to avoid sample requests where spraying is occurring.

Samplers are trained to check the Orchard spray board before entering the orchard. It is a legal requirement for spray signage e.g. the spray board to be completed correctly and in place outside the orchard 24 hours prior to spraying and updated or removed when the land is safe for re-entry.

There are a range of scenarios where stop sampling may apply:

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

- If spraying is in progress in the blocks requested to be sampled when a Sampler arrives then a sample will not be taken.
- If the Sampler suspects fruit could have been sprayed and the spray board has not been completed. This could be indicated by the following signs: There is no condensation on the fruit, the fruit is dripping and it is a fine day, recent tractor wheel ruts under the canopy.
- If the sampler suspects fruit could have been sprayed and the spray board has been completed either correctly or incorrectly. This could be indicated by the following signs: There is no condensation on the fruit, the fruit is dripping and it is a fine day, recent tractor wheel ruts under the canopy.
- If spraying starts in the maturity areas requested to be sampled while the Sampler is sampling the orchard, attempts will be made to stop the spraying so the sample can be taken. If the Sampler is in too closer proximity or feels unsafe, the Sampler will leave the orchard, and stop sampling procedures will take place.
- Where there is a risk of spray drift e.g. when a neighbouring block (including a different KPIN) is being sprayed e.g. spray mist is visible or a spray unit can be seen operating in the orchard or block regardless of the spray applied.

In the above circumstances, sampling will stop and the Sampler will call Operational Services to report and discuss any of the above circumstances. Operational Services will contact the Orchard Representative or other parties associated with the orchard to confirm the presence/absence of spraying and the spray applied. Based on these discussions, sampling will either continue or be stopped. Eurofins BOP will endeavour to return and collect the sample on the same day where possible and in line with the Zespri Crop Protection Standard for minimum re-entry periods.

If a sample has been scanned in the tracking app for collection and/or if any of the above circumstances above are encountered, the sample will be cancelled and a new sample will need to be requested. A cancellation fee or sample collection fee will be incurred.




Curtains

Most curtains are too heavy/cumbersome to be lifted by most Samplers on their own and may result in injury. Furthermore, the presence of curtains restricts the maneuverability of sample vehicles in some situations, meaning Samplers either need to cross rows into unsafe areas of the orchard or reverse back up rows which causes deviations from normal sampling protocols.

Curtains in most cases must be lifted before a sample is taken.

There may however be exceptional circumstances where, a Sampler can access the sampling gaps safely without the need to lift curtains, cross rows and can maneuver the sample vehicle fully in and out of the prescribed lanes without reversing, then a sample can be collected.

Where if there is insufficient space to access the gaps for a representative sample to be completed within the curtained area or there are no suitable gaps in the curtain to manoeuvre

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

a sample vehicle, or the Sampler cannot lift the curtain, the Sampler will call Operational Services to report and discuss. Stop sampling procedures may apply. Operational Services will contact the Orchard Representative or other parties associated with the orchard to discuss returning to the orchard after the curtains have been lifted or cancelling a sample and requesting a sample for the following day once the curtains have been lifted.

Reflective Cloth (also known as Reflective Mulch and Extenday)

Reflective cloth conflicts with sampling activities because the material is slippery (particularly when wet) increasing the risk of injury from slips, trips and falls when foot sampling. In addition, the terrain beneath cannot be seen e.g. holes may be hidden which increases the risk of injury and may affect sample vehicle stability. Furthermore, the collection of fruit in lane one may be disrupted, affecting the representation of the sample taken. Lane 1 can be either 1/3 of the width across the bay for strip male configurations or 2/6 of the width for opposing female canopies (up against the leaders on either side of the bay 1/6 of the distance). In both configurations Lane 1 is up against the female leaders. If you are not able to take the sample randomly from the entire area for Lane 1 then the sample may be compromised and may not be representative of the Maturity Area.

Reflective cloth should ideally be removed before a sample is taken. Where this is not considered practical, orchard representatives should check to ensure the cloth installation and terrain beneath the cloth is suitable for sampling by vehicle or foot.


Any decision to stop sampling will be risk assessed in the context of the overall condition of the orchard, how safely the cloth has been installed, as well as terrain and weather conditions on the day. Stop sampling procedures may be considered where the following risk indicators present:

- bungees are attached high on bay posts
- high weeds/grass poking through either side of the cloth
- holed/torn/loosely fastened cloth (general state of repair)
- sloping terrain
- wet/damp conditions, especially when combined with any sloping terrain
- presence of multiple holes/large holes on the orchard

The Sampler will take photos and call Operational Services to report and discuss, Stop Sampling Procedures may apply.

Note: The risks associated with Extenday/reflective mulch cloth will be closely monitored through the 2019 season.

Examples of unacceptable/reflective cloth installations or conditions

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	



Holes

Holes on orchards increase the risk of injury from trips and falls for foot sampling and significantly increase the risk of a sample vehicle tipping/rolling.


Where the holes are intermittently dispersed through the orchard, the Orchard Representative should flag/mark or isolate these hazards so that a sample can be safely completed.

Where the block(s) to be sampled including access routes have large, deep or multiple holes that may put the Sampler at risk, the Sampler will take photos and call Operational Services to discuss. Stop sampling procedures may apply.

Examples of holes:



Shelter Belt Trimmers

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

Shelter belt trimmers and sampling operations can conflict if operating in close proximity to one another. Both the trimmings and falling branches/debris can present a hazard to samplers.

Please avoid requesting samples where shelterbelt activities are due to take place.

If shelterbelt trimming is not taking place in the same block(s) as sampling or where Samplers are able to stay at least 50 meters away from trimmers or as signage/onsite requirements require. It is expected that both parties will attempt to make their presence known to each other and communicate and co-ordinate their respective work areas accordingly.

Where sampling cannot be carried out safely, stop sampling procedures may apply.


Loose wires, guy wires, tee pee strings, nooses at row ends or through canopy, low hanging vines

Loose wires/strings or nooses can become caught around a Sampler's neck, helmet or sample vehicle and can cause serious injury including whiplash, strangulation, puncture wounds and eye injuries. Loose wires, strings and vines may also become entangled with a sample vehicle resulting in a loss of control and steering.

Where wire/strings etc. that are not easily visible are seen dropping through the canopy or at the end of the row.

The sampler will take photos and call Operational Services to confirm. Stop Sampling Procedures may apply until these are flagged or removed.

Examples of wires/strings:

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	



Note wires and strings at neck height


Aggressive/Violent Growers/orchard contracts or Contractors

Workplace violence is a health and safety risk and includes any act where a person is abused, coerced, threatened, intimidated or assaulted. A number of Eurofins BOP Samplers experienced serious incidents of violence during the 2017 and 2018 maturity clearance season. Therefore, additional controls are in place to protect them during the course of their work.

Eurofins BOP operates a zero-tolerance policy in relation to violence in the workplace. This includes violent or aggressive persons that Samplers or any other member of staff may interact with on orchards or in the course of their work. This behaviour is completely unacceptable and will not be tolerated by Eurofins BOP or any of their staff. Stop sampling procedures will apply when a Sampler feels or is: intimidated, abused (either physically or emotionally), coerced or pressured into deviating from standard sampling protocols.

The Sampler will not engage, will leave the orchard and call Operational Services to confirm and record the incident. Please note that conversations around health and safety are encouraged between Growers and Samplers, however our Samplers are trained to minimise engaging with anyone on orchards and cannot discuss test results. Any coercion or request to change the sampling methodology will result in stop sampling.

Eurofins BOP is committed to ensuring that all employees and managers are provided appropriate resources, guidance and education opportunities to raise awareness of its 'Bullying, Harassment & Discrimination Policy and Procedure' and its associated responsibilities and obligations.


	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

Incidents with aggressive persons in connection with an orchard will be recorded and additional controls may be applied which will result in a higher collection fee.

5.10 Orchard Hygiene

Eurofins BOP's procedures are consistent with KVH regional requirements.

DRAFT

	BOP-XXX-XXXX (TBD)	Revision No: 8
	Kiwifruit Orchard Health and Safety Sampling Standard	

6.0 DOCUMENT REVISION HISTORY:

Original	Changed Section	Justification	Revision Date
	Updated to reflect lone worker system	Updated in line with other documentation and primary, secondary, tertiary safe work systems	
	RECON and explanation of hazard reporting and stop sampling process	further explanation of processes, explanation of how photos and evidence to be taken, addition of 2018 data for stop sampling and hazard ID	
	Dropped fruit on ground	Additional detail given around risks in combination with other hazards e.g. reflective cloth, wet conditions and sloping terrain	
	Collapsed Structures	Articulating responsibly of Orchard Representative to define and communicated safe work areas	
	Curtains	Amended due to several injuries sustained over 2018 season due to sample vehicles deviating in between rows	
	Shelter Belt Trimmers	Amended due to one serious incident over 2018 season.	