



Kiwifruit Plant Certification Scheme

Nursery Manual

Version 3.0

Template reviewed October 2016

Nursery Name:

Prepared by:

Date:

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About the Nursery Manual

The purpose of this document is to assist nurseries to produce plants meeting the Standard of the Kiwifruit Plant Certification Scheme. This Nursery Manual is a template for nurseries to complete documenting how they meet the requirements of the KPCS Standard as part of the certification process. Numbering used in the Nursery Manual correspond to that used in the KPCS Standard. The KPCS Standard should be referred to for the compliance criteria required for each point.

More details on the Kiwifruit Plant Certification Scheme can be found in the “Kiwifruit Plant Certification Scheme Overview Paper”, and in the “KPCS Standard”.

Once systems outlined in this Nursery Manual have been developed and implemented they must be maintained by the nursery. The Nursery Manual must be amended when the nursery introduces new products or procedures. KVH should be notified of any changes that might affect risk management, such as the addition of or modification to production sites or changes in key staff.

5. Part A – Nursery Essentials

Note: Numbering intentionally begins at 5 to align with the KPCS Standard

5.1. Nursery Details

Nursery Name

Address

Mailing address if different to above

Phone _____ Email _____

Person responsible for nursery _____

5.1.1. Production System

What is the production system that is used by your nursery (i.e. Containerised undercover, field grown, combination or other)? If plants are grown undercover note the approximate proportion that are undercover and if this is limited to certain stages of the propagation cycle. The description of the production system should be sufficient for the reader to get an understanding of the operational process.

5.1.2. Production sites

List all production sites (owned and leased, indicating their size, and location if different to address in section 5.1. The size of each production site should be indicated in either m² or Ha.

5.1.3. Nursery Maps

For each production site prepare a map locating specific key areas of the nursery such as;

- Mother plants;
- Quarantine area;
- Potting area;

Part B – Hazard Management

The Nursery Manual must include risk management principles which are designed to reduce biosecurity risks. When completing this Nursery Manual, nurseries should refer to the appropriate section in the KPCS Standard for details, as indicated in the column ‘KPCS Standard Reference’.

| KPCS Standard Reference | Requirements | How Nursery meets requirements |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Pest Free Place of Production PF.1 | <p>Nurseries must demonstrate that appropriate measures are in place to prevent incursions from target organisms. For nurseries in close proximity to orchards this is likely to include an enhanced crop protection programme and physical protection such as covering during high risk weather events.</p> <p>The nursery must demonstrate that they have control over plant weed speices.</p> | |
| Hygiene HG.1 | <p>Nurseries must have hygiene protocols in place that all staff are aware of and follow. Please attach or refer to where your hygiene protocols are written, or at a minimum describe these here.</p> <p>Nursery hygiene protocols should include <i>at least</i> the following:</p> <ul style="list-style-type: none"> • Disinfection of hands, shoes and equipment prior to leaving the property; • Disinfection of plant facilities between batches; • Disinfection or sterilisation of all equipment between batches; • Footbaths at all entry points ; • Regular cleaning and disinfection of work / propagation areas; and • Wash down of vehicles in a designated area. | |
| Traceability | <p>The nursery should be able to produce the following records and make them accessible to all key employees, KVH staff and auditors. Please provide a short description of how the following systems operate and where records are located or explain where the information can be found during audit.</p> | |
| TR.1 | <p>Describe how the plants are identified at the nursery (batch and cultivar), or indicate where an explanation of this system can be found</p> | |

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| TR.2 | Describe where traceability records are located that contain information required in TR2 | |
| Growing Media GM.1 | Describe or refer to records that indicate where growing media is sourced from, assurance that the growing media is free of kiwifruit plant material, and any assurance of freedom from pests and diseases if given. | |
| Site Requirements | Nursery production site(s) shall meet the following requirements | |
| SR.1 | Are all production sites and facilities secure? Describe how this is achieved. | |
| SR.2 | <u>Multiple Nursery Sites</u> If your nursery has multiple production sites, explain or refer to protocols that demonstrate, how movements of people, machinery and plant material will be managed between sites. | |
| Propagation Material | The nursery must be able to demonstrate what systems are in place to verify propagation material is clean. | |
| PM.1 | <u>Documentation of propagation material</u> Describe where records are located that document the origin, pest and disease status of all <i>Actinidia</i> plant material brought onto the site. A template for supplier details is available on the KVH website (www.kvh.org.nz/kpcs). | |
| PM.2 | <u>Systems to ensure material is pest and disease free</u> Describe, include as an attachment, or specify the location where a written document can be found that specifies procedures used by the nursery to verify all starting material is clean. | |
| PM.3 | <u>Fruit collection and seed extraction</u> Describe, include as an attachment or specify where a written document can be found that specifies how the risk of fruit and seed is mitigated. | |

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| <p>Field Production FP.1</p> | <p>Describe or refer to a separate document that states what measures your nursery takes to mitigate risk of contamination during this production phase. Measures must include those listed in FP1 which include;</p> <ul style="list-style-type: none"> • Buffer zones and environmental protection; • Hygiene for staff and materials; and • Visitor awareness of biosecurity risks and procedures • Equipment and storage facility sanitisation. | |
| <p>Propagation and plant husbandry PP.1</p> | <p>Describe or refer to a description that states how risk is mitigated during propagation or pruning to prevent infection and spread of pests and diseases.</p> | |
| <p>Crop Protection Programme CP.1</p> | <p>In the Nursery Details Section of this Nursery Manual a crop protection manager should be designated.</p> <p>Include a copy or refer to where the nursery Spray plan and records are kept.</p> <p>A template is available on the KVH website (www.kvh.org.nz/kpcs).</p> | |
| <p>Monitoring</p> | <p>The nursery must be able to demonstrate that monitoring is being conducted as specified in the Standard.</p> | |
| <p>MN.1</p> | <p>Describe the monitoring procedure including monitoring frequency and staff responsible. Monitoring records should support this description.</p> | |
| <p>MN.2</p> | <p>Describe where monitoring records are held.</p> | |
| <p>MN.3</p> | <p>The Standard describes a procedure for dealing with symptomatic plants, describe where the auditor can find records detailing the outcome of any symptomatic plants found.</p> | |

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| Disposal of waste DW.1 | How is <i>Actinidia</i> plant material and any materials potentially contaminated with pests or diseases disposed of at the nursery? | |
| Transport TT.1 | How is the risk of transport contamination managed? Description should address: <ul style="list-style-type: none"> • Packaging of plant material for transport; • Transport containment; and • Disinfection between loads, especially when other kiwifruit properties are visited. | |
| Dispatch D1 | Describe or refer to records or other documents that demonstrate the dispatch inspection and pre-dispatch treatments. All plants must be inspected for pests and diseases prior to shipping. A Psa protectant product shall be applied within one week of dispatch. Plants dispatched should have a dispatch record that contains: The nursery must provide a dispatch record that includes: <ul style="list-style-type: none"> • Dispatch inspection sign off; • Date of pre-dispatch treatment and product used; • Traceability information A template is available on the KVH website (www.kvh.org.nz/kpcs). All dispatches must be in accordance with KVH movement controls. | |

Checklist of Records that should be maintained by the Nursery:

- Staff Training records (ref 5.2.1)
- Visitor register stating visitor and contractors movements (ref 5.4.3)
- Plant Traceability records, including suppliers, buyers and records that can trace the entire chain of custody (ref TR.2)
- Growing media suppliers (GM.1)
- Documentation of starting material (PM.1)
- Annual Crop Protection Spray Plan and spray records (CP.1)
- Monitoring records (MN.2)
- Sampling records for testing (MN.3)
- Dispatch inspection and treatment records (D.1)
- Internal audit records

7. Internal Audit

As detailed in the KPCS Standard, the nursery must undertake internal audits (at least one per year) to ensure that the procedures documented in the Nursery Manual are being followed, reducing risk and improving the likelihood of a successful external audit.

The internal audit needs to cover the same criteria as the external audit, and therefore follow the External Audit Checklist (available on the KVH website www.kvh.org.nz/kpcs). Non-conformances and potential non-conformances must be documented, root causes of problems identified, and suitable corrective and preventive actions taken. The effectiveness of corrective actions shall be verified.

The internal audit will review the effectiveness of the nurseries current practices to meet the requirements of the KPCS Standard, and shall result in documented outputs that will lead to continual improvement of outcomes.

List internal audit details below.

| Internal audit date | Internal auditor name & signature | Location of internal audit report |
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