



NEW ZEALAND

PLANT PRODUCTION
BIOSECURITY SCHEME

PPBS DOC #06

Core Standard
Nursery Manual Template

V1.1 - November 2020

Core Standard

Nursery Manual Template

February 2020

[Interim Address]

PPBS

PO Box 3443, Wellington, 6140

P 04 918 3511, E office@nzppi.co.nz

Updates

The Plant Production Biosecurity Scheme (PPBS) is a science-based framework to help producers identify, control, manage and avoid biosecurity risk. The scheme and standards are based on work undertaken early in 2018 following experience early in the myrtle rust response that underscored the crucial role that plant producers play in early detection of pests, their containment and slowing their spread following a pest incursion. Subsequent discussions identified the opportunity to develop a systematic approach to plant production industry biosecurity risk management.

Revisions will be ongoing as PPBS experience and/or new science inform the need for change. Revisions published on the Scheme's website [to follow] and participants advised of the changes and new documents, so they can ensure that they are referring to the most recent documents.

Those wishing to provide recommendations for change should send these in writing to PPBS or by email to [in the interim office@nzppi.co.nz].

Acknowledgements

The PPBS acknowledges and is appreciative of the support of many industry members and stakeholders who assisted in the development of the scheme; funding from the Ministry for Primary Industry, Department of Conservation, Auckland Council and forestry and horticultural industry bodies, the guidance of project Steering and Working Groups, feedback and advice from industry members and stakeholders, and Kiwifruit Vine Health's generously allowing the PPBS to extract from and draw heavily upon their work and the Kiwifruit Plant Certification Scheme.

Disclaimer

While the PPBS's objective is to allow certification of plant producers and confidence that the plants they produce have been grown under conditions of high biosecurity risk and hazard management, there remains the possibility a proportion of plants may contain biosecurity pests. PPBS accepts no liability for claims regarding the presence of pests in any plants produced by registered and/or certified producers. While the objective of the PPBS standards and guidance is to minimise the potential risk pest, no party can guarantee that adherence to these standards and guidance will reduce such risk to zero.

Contents

Purpose.....	5
6. Part A: Nursery Essentials.....	6
6.1 Nursery Details.....	6
6.2 Staff and management responsibilities.....	8
6.3 Staff training.....	8
6.4 Signage.....	9
6.5 Visitors.....	9
7. Part B: Biosecurity Management Fundamentals.....	10
7.1 A Systems Approach.....	10
7.2 Hygiene.....	10
7.3 Crop Monitoring.....	12
7.4 Traceability.....	12
7.5 Trusted suppliers and Inwards Supplies.....	13
8. Part C1: Hazard Management – all producers.....	14
8.1 Transplant.....	14
8.1.1 Plant stock for planting.....	14
8.1.2 Growing media.....	14
8.1.3 Fertiliser.....	15
8.1.4 Containers.....	16
8.1.5 Propagation.....	16
8.1.6 Potting and re-potting.....	17
8.1.7 Transport to and Placement in Container Growing Area.....	17
8.1.8 Transport to and Planting in Field.....	17
8.2 Growing.....	17
8.2.1 Growing areas – all types.....	17
8.2.2 Nutrition amendment – top-dressing and/or fertigation.....	18
8.2.3 Crop protection – pest, pathogen and weed control.....	18
8.2.4 Weed management.....	18
8.3 Dispatch.....	18
8.4 Plant distribution and transport.....	19
9. Part C2: Hazard Management – container production.....	20
9.1 Transplant – container production.....	20
9.1.1 Transport to and Placement in Container Growing Area.....	20
9.2 Growing – container production.....	20
9.2.1 Growing Areas – container production.....	20
9.2.2 Plant Handling – container production.....	20
9.2.3 Irrigation – container production.....	20
10. Part C3: Hazard Management – bare root & field production.....	21
10.1 Transplant – Bare Root & Field Production.....	21
10.1.1 Transport to and planting in field.....	21
10.2 Growing – Bare Root & Field Production.....	21
10.2.1 Growing Areas – bare root and field production.....	21
10.2.2 Plant Handling – bare root and field production.....	21
10.2.3 Harvest from field.....	22
10.3 Handling of Field Grown Plants Post Lifting.....	22
10.3.1 Storage prior to processing.....	23
10.3.2 Processing of field grown plants.....	23
10.3.3 Storage of processed field grown plants.....	24
11. Documents and claims.....	25
12. Audits.....	25

PLANT PRODUCTION BIOSECURITY SCHEME

Amendments

1.0 – 18/2/20 – 2020 Doc version created

1.1 – 18/11/20

- Added Section 8.2.4 – Weed Management
- Updated pagination and table of contents

Core Standard

Nursery Manual Template

Purpose

The purpose of this document is to provide a Nursery Manual template to assist producers achieve the Core Standard of the Plant Production Biosecurity Scheme.

The Scheme requires participating producers to implement a systems-based approach to pest risk management. They must maintain a management system appropriate to the scale and nature of their operation and that demonstrates that plant production has been undertaken under conditions of high biosecurity risk and hazard management.

A Nursery Manual and its implementation records are one way of demonstrating the operation of the management system. Alternatively, a systematic approach to biosecurity risk management can be supported by a collation of a body of evidence to demonstrate how the producer the requirements of scheme certification.

Numbering used in the Nursery Manual correspond to that used in the Core Standard. The Core Standard should be referred to for compliance criteria required for each point.

More details on the Plant Production Biosecurity Scheme can be found in the Plant Production Biosecurity Scheme Overview Paper and in the Core Standard.

Once systems outlined in this Nursery Manual have been developed and implemented, they must be maintained by the producer. The Nursery Manual must be amended when the producer introduces new products or procedures that alter biosecurity hazards and/or how they are and managed.

6. Part A: Nursery Essentials

Note: Numbering intentionally begins at 6 to align with the Core Standard

6.1 Nursery Details

CONTACT DETAILS

Nursery Name

Scheme identity reference (if established):

Physical Address:

Mailing address if different from physical address:

Phone:

Email Address:

Person responsible for the nursery:

Person responsible for implementing this biosecurity Scheme:

Production system

What is the production system that is used by your nursery (example containerised, undercover, field grown, combination or other)? The description of the production system should be sufficient for the reader to get an understanding of the operational process.

Productions sites

List all production sites (owned and leased) indicating their size, and location if different to the address above. The area of each production site should be indicated in either total square meters or hectares.

Water sources

--

Nursery maps

For each production site prepare a map locating key areas (if they exist) of the nursery such as:

- Mother plants
- Isolation areas
- Areas for incoming plants
- Growing media preparation and/or storage areas
- Propagation area
- Potting facilities
- Production area (greenhouses, outdoor growing areas)
- Dispatch and shipping areas

The map must show the numbers, letters or names that are used at the nursery to designate blocks, fields, rows or buildings. This information will be used in the inventory system to track plant movement at the nursery.

6.2 Staff and management responsibilities

Who is responsible for the implementing the Core Standard?

6.3 Staff training

Describe your staff biosecurity induction processes

Describe your staff biosecurity induction training processes

Where are training records kept

6.4 Signage

Describe requirements for signage that

- Highlights the importance of biosecurity within the nursery;
- Indicates that entry is restricted to permitted persons only;
- Shows visitors where to park; and
- Directs visitors to the office or provide contact details for a visitor to register presence.

6.5 Visitors

Describe how are visitors made aware of biosecurity requirements?

Describe how are the risks that visitors and their vehicles present to production areas are mitigated?

Where is the visitor register located and how it is maintained?

7. Part B: Biosecurity Management Fundamentals

7.1 A Systems Approach

Describe measures you use to prevent incursions from pests

Describe measures you use to prevent exposure to pests during the production cycle

Describe measures you use to prevent pests being spread through plant stock dispatch

Describe measures you use to undertake routine review of the nursery's risk management systems

7.2 Hygiene

Describe how access to nursery site issues are managed

--

Describe how access to nursery production areas is controlled

Describe how staff and visitors are informed of nursery hygiene measures

Describe how tools, equipment and vehicles are cleaned

Describe how plant and other biological waste is disposed of

Describe how work areas are kept clean

Describe how movements between multiple sites are managed (if more the nursery operates on more than one site)

7.3 Crop Monitoring

Describe how monitoring for the presence of pests is conducted in the nursery.

Describe the procedure to follow when a given pest is detected.

Describe the procedure to follow when a pest and/or, signs and/or symptoms of a pest are detected but is not able to be identified immediately.

7.4 Traceability

Describe how batches of plants are established and identified.

Describe the system of traceability from supplier through the nursery system to the customer, including

- The source of nursery inputs and propagative or young plant material.
- How inputs and plant materials are traced through the production process.
- How sales and/or shipments can be traced.

7.5 Trusted suppliers and Inwards Supplies

Describe how suppliers are assessed so that the producer has confidence pests are unlikely to be introduced on materials sourced offsite.

Describe how nursery inputs are inspected on arrival.

8. Part C1: Hazard Management – all producers

8.1 Transplant

8.1.1 Plant stock for planting

Describe how you record the origin any plant material brought onto site.

Describe how you record the location of any mother stock plants.

Describe your measures to inspect plant material brought onto site and/or mother stock plants to ensure contaminated plant materials are detected early and corrective action undertaken.

8.1.2 Growing media

Describe how you record where growing media and/or its components come from.

Describe measures you undertake to ensure growing media, and/or its components are practically free of pests.

Describe your measures to ensure growing media and/or its components are prepared and stored to avoid pest contamination.

Describe your measures to manage pest contamination risk if soilless growing media or components are recycled.

8.1.3 Fertiliser

Describe how you record where fertilisers come from.

Describe measures you undertake to ensure fertilisers are practically free of pests.

Describe your measures to ensure fertilisers are prepared and stored to avoid pest incursions.

Describe your measures to manage contamination risk if organic manures are used.

--

8.1.4 Containers

Describe how you record where containers come from.

Describe measures you undertake to ensure containers are practically free of pests.

Describe your measures to ensure containers are stored to avoid pest contamination.

Describe your measures to manage contamination risk if containers are recycled.

8.1.5 Propagation

Describe measures undertaken to avoid contamination during the propagation process.

8.1.6 Potting and re-potting

Describe measures undertaken to avoid contamination during the potting process.

8.1.7 Transport to and Placement in Container Growing Area

Describe measures undertaken to ensure container grown plants are not contaminated during transportation to and placement in the growing area.

8.1.8 Transport to and Planting in Field

Describe measures undertaken to ensure plants are not contaminated during transportation to and planting in field.

8.2 Growing

8.2.1 Growing areas – all types

Describe measures to ensure plants are not contaminated while growing in greenhouses, container standing out beds and/or in the field.

8.2.2 Nutrition amendment – top-dressing and/or fertigation

Describe measures to manage the risk of pests being spread while undertaking nutrition amendment.

8.2.3 Crop protection – pest, pathogen and weed control

Describe the nursery's crop protection plan including;

- Key pest threats and corrective action
- Agrichemicals selected for corrective action
- If appropriate, details of a routine agrichemical programme.

Where are agrichemical diary records are stored.

8.2.4 Weed management

Describe the nursery's weed management programme and measures to prevent weeds and weed seeds shipping with plants.

-

8.3 Dispatch

Describe the process and person(s) authorised to undertake and release plants for dispatch.

Describe measures to avoid contamination during the dispatch process.

Describe how you undertake final inspection and signoff at an appropriate point prior to order picking and/or dispatch

Describe how you undertake final inspection and signoff, date of dispatch and any pre-dispatch treatment, and traceability information (including reference to invoice which should detail species shipped).

8.4 Plant distribution and transport

Describe the process for the completion of nursery dispatch clearance.

Describe how you ensure transport operators have a Standard Operating Procedure describing measures to manage plant debris is on truck decks.

9. Part C2: Hazard Management – container production

9.1 Transplant – container production

9.1.1 Transport to and Placement in Container Growing Area

Describe measures undertaken to ensure container grown plants are not contaminated during transportation to and placement in the growing area.

9.2 Growing – container production

9.2.1 Growing Areas – container production

Describe measures to ensure plants are not contaminated while growing in greenhouses and/or container standing out beds.

9.2.2 Plant Handling – container production

Describe measures to avoid contamination during the plant growth maintenance process.

9.2.3 Irrigation – container production

Describe measures to manage the risk of pests being introduced and spread through irrigation.

--

Describe measures to ensure that water run-off does not re-enter growing areas.

10. Part C3: Hazard Management – bare root & field production

10.1 Transplant – Bare Root & Field Production

10.1.1 Transport to and planting in field

Describe measures undertaken to ensure plants are not contaminated during transportation to and planting in field.

10.2 Growing – Bare Root & Field Production

10.2.1 Growing Areas – bare root and field production

Describe measures undertaken to ensure plants are not contaminated while growing in the field.

10.2.2 Plant Handling – bare root and field production

Describe measures undertaken to avoid contamination during the plant growth maintenance process.

10.2.3 Harvest from field

Describe measures to avoid contamination during the harvest process.

Describe measures during the transport from Field process either to storage or further processing.

10.3 Handling of Field Grown Plants Post Lifting

Describe the process and person(s) authorised to control processing, storage facilities and transport.

Describe measures to avoid contamination during processing, storage facilities and transport.

Describe how you maintain records of inspection for processing, storage facilities and transport equipment.

--

Describe how you maintain records of inspection for plants, including any treatments or Corrective Actions taken.

10.3.1 Storage prior to processing

Describe measures to avoid contamination during storage prior to processing.

Describe measures to avoid contamination during transport from storage to processing.

10.3.2 Processing of field grown plants

Describe the process requirements and person(s) responsible for processing.

Describe measures to avoid contamination during processing.

10.3.3 Storage of processed field grown plants

Describe the process and person(s) authorised to undertake the correct storage of processed field grown plants.

Describe measures to avoid contamination of processed field grown plants.

Describe how records are maintained for inspection during storage.

11. Documents and claims

Describe how your participation in the Scheme is used in documents and identified.

12. Audits

Describe how internal audits are conducted, results are reviewed, corrective actions are prepared and implemented.
