

<b>Title</b>	<b>Assess the health of forest plantations from the ground</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: conduct a drive-through assessment of forest health; establish a temporary health plot in a forest; inspect the vegetation in an established temporary health plot; and collect samples for analysis as necessary, and report findings.
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<b>Classification</b>	Forestry > Forest Health Surveillance
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<b>Available grade</b>	Achieved
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## Guidance Information

### 1 Definitions

*Accepted industry practice* – approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.

*Diagnostic laboratory* – the laboratory nominated by MPI Biosecurity New Zealand (BNZ) to which suspect samples are submitted for diagnosis.

*Forest stand* – an area within a forest of the same tree species, age and silvicultural treatment.

*High Risk Forest Sites (HRFS)* – sites in the vicinity of industrial, recreational, or tourist activity which are identified by the New Zealand Forest Owners' Association (FOA) Forest Biosecurity Committee as being of high risk of incursion of exotic organisms.

*Random temporary health plots* – surveillance transects that are established to randomly sample the health of plantation forests or cutover.

*Temporary health plots* – surveillance transects that are established to follow up indications of forest health disorders from aerial or drive through assessments, or from reports of suspected forest health disorders by forest staff or the public.

### 2 References

*Field Guide* refers to the *Field Guide to Common Pests, Diseases, and other Disorders of Radiata Pine in New Zealand*. FRI Bulletin 207 published by Scion and available from <http://www.scionresearch.com/>.

*Specifications Document* refers to the FOA's Forest Health Surveillance Scheme. Specifications Document (current version 2010) produced by the FOA Forest Biosecurity Committee, and available at <http://www.nzfoa.org.nz/>.

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## Outcomes and performance criteria

### Outcome 1

Conduct a drive-through assessment of forest health.

**Performance criteria**

- 1.1 Planning requirements for drive-through assessments are described in accordance with the Specifications Document.
- Range roading density, roading quality, most efficient route, safety requirements, other operations, species.
- 1.2 The drive-through speed is stated in accordance with the Specifications Document.
- 1.3 Drive-through assessment of the health of the forest is conducted in accordance with the Specifications Document.
- 1.4 Observations of tree health are recorded in accordance with the Specifications Document.
- 1.5 Indications of unusual or potentially serious symptoms are inspected and documented in accordance with the Specifications Document.

**Outcome 2**

Establish a temporary health plot in a forest.

**Performance criteria**

- 2.1 The frequency of temporary health plots is identified in accordance with the Specifications Document.
- Range random temporary health plots, investigative temporary health plots, surveillance in the proximity of identified HRFS.
- 2.2 The entry point into the forest stand is identified and marked and the GPS waypoint recorded in accordance with accepted industry practice.
- 2.3 The start point of the temporary health plot transect is located and marked, the GPS waypoint recorded, and the status of the plot recorded in accordance with the Specifications Document.
- Range investigative surveillance, random surveillance, surveillance in the vicinity of identified HRFS.
- 2.4 The transect direction is identified and recorded in accordance with accepted industry practice.
- 2.5 The transect end point is identified, marked and recorded in accordance with accepted industry practice.

**Outcome 3**

Inspect the vegetation in an established temporary health plot.

**Performance criteria**

- 3.1 The centre line of the transect is marked and location recorded.  
Range paint or stake, GPS waypoint.
- 3.2 The signs and symptoms of any shrub or tree foliage damage are identified and described in accordance with the Field Guide.  
Range may include – fungal infection, insect infestation, abiotic disorder or damage.
- 3.3 The signs and symptoms of any shrub or tree branch and twig damage are identified and described in accordance with the Field Guide.  
Range may include – fungal infection, insect infestation, abiotic disorder or damage.
- 3.4 The signs and symptoms of any tree stem and/or root/butt damage are identified and described in accordance with the Field Guide.  
Range may include – fungal infection, insect infestation, abiotic disorder or damage.
- 3.5 The signs and symptoms of any disorder or damage to felled trees and/or logs are identified and described in accordance with the Field Guide.  
Range may include – fungal infection, insect infestation, abiotic disorder or damage.

**Outcome 4**

Collect samples for analysis as necessary, and report findings.

**Performance criteria**

- 4.1 Beating sheet collections are made in accordance with the Specifications Document.
- 4.2 Samples are collected as necessary, labelled, and prepared for dispatch to the diagnostic laboratory in accordance with accepted industry practice.
- 4.3 Findings are reported in accordance with accepted industry practice.

<b>Planned review date</b>	31 December 2028
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	25 July 2006	31 December 2017
Review	2	17 September 2010	31 December 2017
Review	3	10 December 2015	N/A
Rollover and Revision	4	28 May 2020	N/A
Rollover	5	26 April 2024	N/A

**Consent and Moderation Requirements (CMR) reference**

0173

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council [qualifications@mukatangata.nz](mailto:qualifications@mukatangata.nz) if you wish to suggest changes to the content of this unit standard.