

level of qualification: 6**credit total:** 300

	Compulsory	Elective A	Elective B
level 2 credits:	25	0-8	0-27
level 3 credits:	25	0-21	0-27
level 4 credits:	47	0-44	0-27
level 5 credits:	74	0-41	0-27
level 6 credits:	17	0-98	0-27
level 7 credits:	15	0-30	0-27
minimum totals:	203	70	27

registration date: 17 September 2002**final date for comment:** 30 September 2006**expiry date:** 31 December 2007**fields, sub-fields and domains:**

AGRICULTURE, FORESTRY AND FISHERIES

Forestry

- chainsaw operating
- forest establishment
- forest harvesting
- forest health surveillance
- forest inventory
- forest mensuration
- forest silviculture
- forestry business management
- forestry knowledge
- log making
- technical forestry
- tree felling

BUSINESS

Management

COMMUNITY AND SOCIAL SERVICES

Fire and Rescue Services

fire and rescue services - generic fire fighting

fire and rescue services - vegetation

COMPUTING AND INFORMATION TECHNOLOGY

Computing

generic computing

HEALTH

Health Studies

core health

Occupational Health and Safety

occupational health and safety practice

HUMANITIES

Communication Skills

LAW AND SECURITY

Biosecurity

border quarantine

standard-setting body responsible for the qualification:

Forest Industries Training

other standard-setting bodies whose unit standards are included in the qualification:

Fire and Rescue Services Industry Training Organisation

NZQA

1 purpose

This diploma is awarded to people who have demonstrated competence in forest management. The qualification recognises the skills and knowledge required to manage a commercial plantation forest on a sustainable basis, and to meet the objectives of the forest owner. Holders of this diploma will be able to manage the range of forest operations associated with the establishment, tending, harvesting and re-establishment of production forests on a sustainable basis.

The diploma recognises a blend of skills from operational forestry, technical forestry, applied science, and business management, necessary for a successful commercial forest enterprise, and includes a number of unit standards from the national certificates in forestry to recognise the practical skills required of a forest manager. For this reason it is recommended that people entering the qualification have practical experience within a commercial forest.

The National Certificates in Forestry at level 4 provide a lead-in to this qualification, and certificate holders meet the recommended entry requirements for this diploma.

2 regulations for the qualification

2.1 entry information for programmes of education and training assessed against the unit standards in the qualification

Entry to programmes leading to this qualification is open, however Forest Industries Training recommends that people already have a minimum of 10 credits from each of the computing, writing, reading, numeracy and interpersonal communications domains, or demonstrate equivalent knowledge and skills. Practical experience within a commercial forest, or 20 credits from practical forestry skills at levels two and three, is also recommended.

2.2 recognition of prior learning

Prior learning may be recognised for unit standards by evidence submitted to a registered industry assessor. In the case of skills associated with practical and production unit standards a demonstration of competence may be necessary to satisfy industry safety and production requirements.

Assessment will be in accordance with procedures established by Forest Industries Training to meet NZQA requirements. Applications for recognition of prior learning should be made to Forest Industries Training or accredited providers.

2.3 summary of qualification requirements

This qualification will be awarded to people credited with a total of 300 credits, of which a minimum of 72 credits is at level 6 or above, and who have met the requirements of the compulsory and elective sections.

Compulsory

All the unit standards listed are required.

Elective A

A minimum of 70 credits is required from the unit standards listed.

Elective B

The balance of credits, if required to achieve a total of 300 credits of which 72 credits are at level 6 or above, may come from Electives A and/or B.

2.4 detailed qualification requirements

Compulsory

All the unit standards listed below are required.

FIELD: AGRICULTURE, FORESTRY AND FISHERIES

Sub-field: Forestry

domain: chainsaw operating

Unit No.	Unit Standard Title	Level	Credit
6916	Demonstrate knowledge of the Code of Practice relating to chainsaw use	2	5
6917	Operate a chainsaw	3	5

domain: forest establishment

Unit No.	Unit Standard Title	Level	Credit
1234	Plant plantation trees	4	5
1236	Demonstrate knowledge of releasing plantation trees	2	4
1237	Release plantation trees using agrichemicals	4	10
6923	Demonstrate knowledge of planting plantation trees	2	3

domain: forest harvesting

Unit No.	Unit Standard Title	Level	Credit
1140	Demonstrate knowledge of harvesting operations in commercial forestry	5	9

domain: forest health surveillance

Unit No.	Unit Standard Title	Level	Credit
5870	Demonstrate knowledge of forest health protection principles	4	5

domain: forest inventory

Unit No.	Unit Standard Title	Level	Credit
1125	Plan and implement forest inventories to obtain information for forest management	5	10
1129	Use stand growth models to forecast growth and yield in commercial forestry	6	5
1130	Demonstrate knowledge of the principles of forest valuation	6	3

domain: forest mensuration

Unit No.	Unit Standard Title	Level	Credit
1222	Establish and measure sample plots for forest operations	4	6
1225	Calculate performance targets and unit rates for forestry operations	5	8

domain: forest silviculture

Unit No.	Unit Standard Title	Level	Credit
1136	Plan management of forest estate for commercial forestry	7	15
1138	Demonstrate knowledge of silviculture in commercial forestry	5	8
1243	Prune plantation trees from the ground	4	5
6949	Demonstrate knowledge of pruning plantation trees	2	4
6951	Demonstrate knowledge of selecting plantation trees	2	4
6952	Select plantation trees for a forest crop	3	5

domain: forestry business management

Unit No.	Unit Standard Title	Level	Credit
4287	Determine employment arrangements for forestry personnel	5	7
4289	Prepare a business plan for use in forestry	6	6
4291	Interpret contract documentation and plan management of forestry contracts	5	6
4294	Demonstrate knowledge of procedures for costing forestry activities	5	4
4297	Prepare a tender for forestry operations	6	3
4298	Present an overview of the forestry industry and an analysis of a selected forestry sector	5	4
4300	Demonstrate knowledge of key issues in forestry production management	5	2

domain: forestry knowledge

Unit No.	Unit Standard Title	Level	Credit
17769	Demonstrate knowledge of the general requirements for employment in a plantation forest	2	5

domain: log making

Unit No.	Unit Standard Title	Level	Credit
1252	Demonstrate knowledge of log making	3	5

domain: technical forestry

Unit No.	Unit Standard Title	Level	Credit
1123	Use maps and photogrammetry to survey land for commercial forestry	4	4
1124	Use maths and statistics functions and procedures in commercial forestry	5	6
1126	Demonstrate knowledge of botany for commercial forestry	3	8
1127	Demonstrate knowledge of wood science for commercial forestry	4	8

Unit No.	Unit Standard Title	Level	Credit
1145	Demonstrate knowledge of environmental legislation affecting commercial forestry	5	2
1146	Demonstrate knowledge of health and safety legislation affecting commercial forestry	5	2
1147	Demonstrate knowledge of property legislation affecting commercial forestry	5	3
14666	Demonstrate knowledge of earth science for commercial forestry	4	4
14667	Demonstrate knowledge of forest ecology	5	3

FIELD: HEALTH

Sub-field: Health Studies

domain: core health

Unit No.	Unit Standard Title	Level	Credit
6400	Manage first aid in emergency situations	3	2

Elective A

A minimum of 70 credits is required from the following unit standards.

FIELD: AGRICULTURE, FORESTRY AND FISHERIES

Sub-field: Forestry

domain: forestry establishment

Unit No.	Unit Standard Title	Level	Credit
1238	Release plantation trees using handtools	3	4

domain: forest harvesting

Unit No.	Unit Standard Title	Level	Credit
1141	Investigate the supervision of commercial forest harvesting prescriptions and specifications	5	7
1142	Demonstrate knowledge of log distribution in commercial forestry	4	4
1143	Prepare an operational forest roading and landing plan	6	12
1144	Prepare an operational forest harvesting plan	6	15

domain: forest mensuration

Unit No.	Unit Standard Title	Level	Credit
6957	Scale logs using a domestic scaling method	4	6
6959	Calculate log scaling volume	5	6

domain: forest silviculture

Unit No.	Unit Standard Title	Level	Credit
1132	Manage establishment operations for commercial forestry	6	15
1133	Manage forest tending for commercial forestry	6	15
1135	Demonstrate knowledge of nutrient management in commercial forestry	5	4
1245	Prune plantation trees from off the ground	4	8

domain: forestry business management

Unit No.	Unit Standard Title	Level	Credit
4282	Demonstrate knowledge of a systems approach to forestry management	5	2
4283	Develop a health and safety management plan for application in forestry	6	10
4284	Develop a crop protection management system for application in forestry	7	10
4285	Develop a quality management system for application in forestry	7	10

Unit No.	Unit Standard Title	Level	Credit
4286	Develop an environmental management plan for application in forestry	6	10
4288	Establish a financial control system for a forestry business	5	6
4290	Manage workforce development in a forestry operation	6	6
4292	Select information technology and determine management procedures for forestry use	6	5
4293	Determine forestry operations equipment requirements	6	3

Unit No.	Unit Standard Title	Level	Credit
4295	Determine financial requirements and resourcing options for a forestry business	4	3
4296	Identify commercial protection requirements for a forestry business	5	2
4299	Determine key issues in employment in forestry	5	2
4301	Establish a production control system for a forestry operation	6	7

domain: forestry knowledge

Unit No.	Unit Standard Title	Level	Credit
13108	Describe effects of hydration and nutrition on safety, health and performance of forestry workers	2	4
13109	Demonstrate knowledge of factors which impair the performance of forestry workers	2	4

domain: log making

Unit No.	Unit Standard Title	Level	Credit
1254	Mark logs to optimise value	4	10
6924	Process tree stems on a landing	4	8

domain: technical forestry

Unit No.	Unit Standard Title	Level	Credit
1131	Demonstrate knowledge of seeds, nurseries, and tree improvement in commercial forestry	5	4
1137	Demonstrate knowledge of forestry and its role as a land use	7	10

domain: tree felling

Unit No.	Unit Standard Title	Level	Credit
17763	Demonstrate knowledge of tree felling	3	5
17766	Fell trees safely using a chainsaw and basic techniques	3	5

FIELD: COMMUNITY AND SOCIAL SERVICES
Sub-field: Fire and Rescue Services
domain: fire and rescue services - vegetation

Unit No.	Unit Standard Title	Level	Credit
3285	Protect personal safety at vegetation fires	3	3
3286	Control vegetation fire using dry fire fighting techniques	3	2
3287	Suppress vegetation fire with water and water with additives	3	2
4648	Explain fundamentals of vegetation fire behaviour	5	8

FIELD: LAW AND SECURITY
Sub-field: Biosecurity
domain: border quarantine

Unit No.	Unit Standard Title	Level	Credit
16819	Demonstrate knowledge of global biosecurity awareness and the New Zealand response	4	5

Elective B

The balance of credits, if required to achieve a total of 300 credits of which 72 credits are at level 6 or above, may come from Electives A and/or B.

FIELD	Sub-field	domain
BUSINESS	Management	any
COMMUNITY AND SOCIAL SERVICES	Fire and Rescue Services	fire and rescue services – generic fire fighting
		fire and rescue services – vegetation
COMPUTING AND INFORMATION TECHNOLOGY	Computing	generic computing
HEALTH	Health Studies	core health
	Occupational Health and Safety	occupational health and safety practice workplace health and safety management
HUMANITIES	Communication Skills	any

3 accreditation option

Evaluation of documentation and visit by representatives of NZQA and Forest Industries Training – Forest Management Advisory Group.

Further accreditation requirements depend on the electives undertaken, and can be found on the unit standards concerned.

4 certification

The certificate will display the logos of NZQA and Forest Industries Training.

5 transition arrangements**5.1 Non-National Qualifications Framework transition**

None.

5.2 National Qualifications Framework transition**Version 5**

This qualification was reviewed and registered as version 5 in September 2002, and takes account of reviews of *Forestry* unit standards. The qualification requirements have been amended in line with the minimum credit requirements for a diploma specified in the *New Zealand Register of Quality Assured Qualifications* (NZQA, 2001).

Changes to structure and content:

- qualification requirements amended;
- title amended to include the level;
- unit standard 5870 added to the Compulsory section;
- unit standard 16819 moved from Compulsory to Elective A;
- compulsory section total increased from 200 to 203 credits;
- unit standards 4283 and 4286 reduced from level 7 to level 6;
- unit standard 1147 credits increased from 2 to 3.

For the purposes of version 5 of this qualification, people who have gained credit for unit standard 16819 will be exempt from the requirement to gain credit for unit standard 5870.

People part way through version 4 may complete the requirements of that version or transfer their results to version 5. The last date for completion of version 4 is December 2005. The last date for completion of all other versions is December 2003.

For the purpose of this qualification, people who gained credit for any of the following unit standards will be exempt from the requirements to gain credit for the replacement unit standards.

Credit For	Exempt From
13 and 43	6916 and 6917
1128	14666 and 14667
1226	6957 and 6959
1232 and 1241	6923 and 6949
1242	6951 and 6952
5870	16819
6940	17766
1211 and 1213 and 1214 and 1215	17769

Those people part way through an earlier version of this qualification who have been credited with any of unit standards 32, 43, 1212, 1220, 1221, 1223, 1224, 6925, and 6954 may use those credits towards the requirements of Elective B.

Any version of a unit standard contained within this qualification which retains its original unit standard identification number will continue to meet the requirements of this qualification.

It is the intention of Forest Industries Training that no existing candidate is disadvantaged by these transition arrangements. Any person who considers they have been disadvantaged is requested to contact:

The Chief Executive Officer
Forest Industries Training
PO Box 6216
ROTORUA

Telephone: 07 348 7250
Fax: 07 348 7350
E-mail: john.blakey@training.org.nz

Previous version information

Version 4 was published in February 2001 following a review. Version 3 was published in November 1999 when requirements for Elective A were reduced from 12 to 10 credits. Version 2 was published in June 1998, following the review of *Communication Skills, Fire and Rescue Services*, and *Forestry* unit standards.

Comments to:

Forest Industries Training
Forestry Management Advisory Group
Qualification Revision
PO Box 160
WELLINGTON

by 30 September 2006.

Please Note: Providers must be accredited by the Qualifications Authority before they can offer programmes of education and training assessed against unit standards.

Accredited providers assessing against unit standards must engage with the moderation system that applies to those unit standards.

Prerequisite Diagram