



List of approved basic material for Canada under the OECD forest tree seed certification scheme, 1970-1995

F.T. Portlock

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About the Author



Frank Portlock is the seed services officer at the Pacific Forestry Centre. He is responsible for certification of forest tree seed exported from Canada under the OECD scheme. Mr. Portlock received his B.A. in biology in 1965 from the University of Oregon.

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Canadian Forest Service
Pacific Forestry Centre
506 West Burnside Road
Victoria, British Columbia
V8Z 1M5
Phone (604) 363-0600

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Contents

ABSTRACT/RÉSUMÉ	iv
INTRODUCTION	1
SOURCE-IDENTIFIED CATEGORY	
ALBERTA	3
BRITISH COLUMBIA	4
YUKON TERRITORY	14
UNTESTED SEED ORCHARD CATEGORY	
BRITISH COLUMBIA	17
NEW BRUNSWICK	18
NOVA SCOTIA	20
PRINCE EDWARD ISLAND	22
REFERENCES	24
APPENDIX I: FOREST REGION AND SECTION	25

Abstract

This report lists all sources of approved forest tree seeds exported from Canada from 1970 to 1995. Canada, as a member of the Organization for Economic Co-operation and Development's (OECD) scheme for control of forest reproductive material moving in international trade, is required to produce a National List. This list includes all seed sources certified under the OECD "source-identified" and "untested seed orchard" categories in Canada since 1970. The list identifies sources by province, species, and forest region.

Résumé

Ce rapport inventorie les sources de semences forestières exportées à l'étranger entre 1970 et 1995. En tant que participant au programme de l'OCDE sur le contrôle du commerce international du matériel de reproduction forestière, le Canada est tenu de produire un inventaire national de ses sources de semences. Cet inventaire comprend toutes les sources de semences attestées comme appartenant aux catégories « origine connue » et « verger à graines non testé » depuis 1970. L'inventaire identifie l'origine des semences selon la province, l'espèce et la région forestière.

Introduction

Canada as a member of the Organization for Economic Co-operation and Development (OECD) participates in the scheme for the certification of forest reproductive material moving in international trade. The requirement for a National List of approved basic material arises from this membership. The scheme requires the Designated Authority of each member country to establish a national register in which the details of all approved basic material are recorded. These details must be published, in abbreviated form, as a National List at regular intervals. In 1982, Pollard published the Canadian National List of Seed Orchards which was the first such listing, although the orchards listed were not registered under the OECD scheme. Boyle (1992) included a listing of Canadian seed orchards in his publication on genetic conservation in Canada. Neither of these listings included information for source-identified seed from wild stands.

The Canadian Forest Service, as the Designated Authority in Canada, established the national rules for certifications under the OECD scheme (Piesch and Stevenson 1976). Four categories of certification are recognized under the OECD scheme (source-identified, select, untested seed orchard, and tested seed orchard). Canada, under the national rules, has implemented two of these categories. The source-identified category, implemented in 1970, encompasses the majority of certifications. Certification in the untested seed orchard category was initiated in 1985 with the registration of the first untested seed orchard. Formal registration of each seed orchard is required before seedlot certification can proceed. Certifications in the source-identified category do not require registration of the collection stand as there is no phenotypic selection under this category, but details of the basic material must be included in the national register.

The information required for the National List for each species includes:

1. Identification: reference number
2. Botanical name
3. Category
4. Type of basic material: (seed collection source, stand, provenance seedling seed plantation, seed orchard, parents of families, clonal mixture, clone)
5. Location:
 - a) source-identified: title, geographical location
 - b) untested seed orchard: geographical location of orchard site and effective area
6. Altitude :
 - a.) source-identified: collection site
 - b.) untested seed orchard: orchard site and range for parental material
7. Origin: Indigenous or non-indigenous
8. Area: size (ha) of seed orchards

The list of basic material in the source-identified category only includes seed sources that have been collected for export. The basic material listed under the untested seed orchard category includes orchards that provide seed for both domestic and international markets. In this case however, only seed destined for export is given OECD documentation. Seed used in domestic reforestation programs is a provincial responsibility.

The botanical names used in the National List follow *Trees in Canada* (Farrar 1995). The regions of provenance used are described in *Forest Regions of Canada* (Rowe 1972). For a brief description of the applicable forest regions and sections see Appendix I.

Source-identified category

Alberta

Species: *Abies balsamea* (L.) Mill.
 Common name: Balsam fir
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Boreal

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Fort McMurray	18a	56 39	111 12	340

Species: *Picea glauca* (Moench) Voss
 Common name: White spruce
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Boreal

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Fort McMurray	18a	56 20	111 25	570
Fort McMurray	18a	56 39	111 12	360

Species: *Picea mariana* (Mill.) BSP
 Common name: Black spruce
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Boreal

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Fort McMurray	18a	56 45	111 40	475

Species: *Pinus banksiana* Lamb.
 Common name: Jack pine
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Boreal

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Fort McMurray	18a	57 00	111 30	305

British Columbia

Species: *Abies amabilis* (Dougl. ex Loud) Dougl. ex J. Forbes
Common name: Amabilis fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Coast

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Mission	2	49 15	122 18	620

Species: *Abies grandis* (Dougl. ex D. Don) Lindl.
Common name: Grand fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Coast

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Buckley Bay	1	49 38	124 45	10
Courtenay	1	49 35	124 52	10
Duncan	1	48 45	123 33	100
Duncan	1	48 45	123 43	20
Grabriola Island	1	49 07	123 41	10
Kuper Island	1	48 55	123 36	10
Metchosin	1	48 15	123 15	10
Metchosin	1	48 25	123 28	100
Nanaimo Lakes	1	49 00	124 13	245
Quamichan	1	48 45	123 32	10
Victoria	1	48 45	123 30	61
Valdez Island	1	49 02	123 37	05
Wild Deer Lake	1	48 38	123 45	300
Yellow Point	1	49 00	123 45	10
Yellow Point	1	49 02	123 45	50
Bainbridge Lake	2	49 11	124 42	100
Iron River	2	49 45	125 00	10
Menzies Bay	2	50 02	125 16	10
Oyster Bay	2	49 52	125 06	10
Punteledge	2	49 40	124 55	50
Sayward	2	50 18	125 53	10
Sooke	2	48 22	123 44	10

Species: *Abies lasiocarpa* (Hook.) Nutt.
Common name: Subalpine fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Boreal

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Atlin	26b	59 22	133 30	700

Species: *Abies lasiocarpa* (Hook.) Nutt.
Common name: Subalpine fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Columbia

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
McGillivary Lake	2	50 53	119 53	1300
McGillivary Lake	2	50 53	119 53	1372
McGillivary Lake	2	50 55	119 49	1676

Species: *Abies lasiocarpa* (Hook.) Nutt.
Common name: Subalpine fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Montane

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
George Mt.	3	53 41	122 26	1050
Grizzly Lake	4	54 23	126 53	850

Species: *Abies lasiocarpa* (Hook.) Nutt.
Common name: Subalpine fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Subalpine

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Inzana Lake	2	55 02	124 51	1050
Sakenichi	2	55 07	125 54	1000
Spring Mt.	2	53 46	122 04	1180

Species: *Alnus rubra* Bong.
Common name: Red alder
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Coast

Place Name	Forest section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Port Clements	4	53 35	131 42	10
Skidigate	4	53 15	131 56	10

Species: *Picea engelmannii* Parry ex Engelm.
Common name: Engelmann spruce
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Montane

Place Name	Forest section	Latitude (° ')	Longitude (° ')	Elevation (m)
Chase Creek	1	50 40	119 34	992
McGillivray Lake	1	50 55	119 49	1676

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Boreal

Place Name	Forest section	Latitude (° ')	Longitude (° ')	Elevation (m)
Dawson Creek	19a	55 20	120 40	1067
Hudson Hope	19a	55 58	121 50	500
Hudson Hope	19a	56 00	121 50	650

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Columbia

Place Name	Forest section	Latitude (° ')	Longitude (° ')	Elevation (m)
Dunster	2	53 04	119 41	750

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Montane

Place Name	Forest section	Latitude (° ')	Longitude (° ')	Elevation (m)
Pemberton Range	1	50 41	119 48	853

Species: *Picea sitchensis* (Bong.) Carrière
Common name: Sitka spruce
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Coast

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Coombs	1	49 15	124 15	10
Qualicum Bay	1	49 20	124 34	10
Miracle Beach	2	49 48	125 03	10
Salmon River	2	50 20	125 53	10
Sooke	2	48 22	123 44	77
Ain River	4	53 44	132 25	10
Dinan Bay	4	53 40	132 40	10
Hancock River	4	53 57	132 06	10
Hiellen River	4	54 00	131 40	10
Juskatala	4	53 35	132 12	10
Kumdis Island	4	53 40	132 00	10
Masset	4	53 37	131 47	10
Masset	4	53 38	132 00	20
Naden Harbour	4	53 37	132 36	10
Old Masset	4	54 01	132 10	10
Port Clements	4	53 35	131 42	10
Sandspit	4	53 02	131 40	10
Skidigate	4	53 15	131 55	10
Skidigate Narrows	4	53 08	132 17	10
Tlell	4	53 14	131 55	10
Tow Hill	4	54 04	131 46	10
Yakan Pt.	4	54 04	131 50	05

Species: *Pinus albicaulis* Engelm.
Common name: Whitebark pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Montane

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Clinton	M. 2	51 05	121 37	1800

Species: *Pinus contorta* Dougl. ex Loud var. *contorta*
Common name: Shore pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Coast

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Port Clements	4	53 35	131 40	10

Species: *Pinus contorta* Dougl. ex Loud. var. *latifolia* Engelm.
 Common name: Lodgepole pine
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Boreal

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Cecil Lake	18a	56 25	120 15	640
Ardell	19a	56 06	121 34	457
Beaton River	19a	56 45	121 15	750
Beaton River	19a	56 55	121 20	732
Buick Creek	19a	56 45	121 10	700
Centurion Creek	19a	55 31	121 30	701
Chetwynd	19a	55 40	121 15	610
Dawson Creek	19a	55 20	120 40	1067
East Pine	19a	55 35	120 15	762
Gwillim Lake	19a	55 20	121 23	762
Halfway River	19a	56 25	122 00	850
Heritage Highway	19a	55 15	120 30	900
Hudson Hope	19a	56 00	121 45	488
Hudson Hope	19a	55 55	121 35	500
Jackfish Lake	19a	55 48	121 15	610
Mile 81	19a	56 30	121 10	701
Mile 86	19a	56 41	121 30	750
Mile 95	19a	56 25	122 00	750
Mile 132	19a	56 53	122 10	875
Mile 135	19a	56 57	122 20	850
Moberly Lake	19a	55 44	121 35	792
Muskeg Lake	19a	55 20	120 43	914
Pink Mtn.	19a	56 50	122 35	1006
Sundance Lake	19a	55 41	121 19	610
Tumbler Ridge	19a	55 00	120 40	1000
Wonowon	19a	56 41	121 39	823
Pink Mtn.	19b	56 58	122 15	850
Pink Mtn.	19b	57 04	122 35	1067
Pink Mtn.	19b	57 00	122 00	900
Trutch Mtn.	19b	57 47	122 40	600
Lone Prairie	19c	55 36	121 24	762
Ft. Nelson	23a	58 50	122 40	500
Boya Lake	24	59 24	129 10	671
Boya Lake	24	59 20	129 00	850
Cassiar Road	24	59 20	129 00	600
Contact Creek	24	59 59	127 39	549
Fireside	24	59 37	127 06	518
Hyland River	24	59 55	128 04	518
Lower Post	24	59 55	128 15	549
Cassiar	25	58 50	129 20	820
Dease Lake	25	58 00	129 50	800
Atlin	26b	59 30	133 33	701
Atlin	26b	59 20	133 18	721
Tutshi	26b	59 54	134 17	671

Species: *Pinus contorta* Dougl. ex Loud. var. *latifolia* Engelm.
Common name: Lodgepole pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Columbia

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Burton	1	50 01	118 51	1075
Burton	1	50 01	118 51	1200
Edgewood	1	49 55	118 11	700

Species: *Pinus contorta* Dougl. ex Loud. var. *latifolia* Engelm.
Common name: Lodgepole pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Montane

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Adams Hill	1	50 52	119 37	396
Chase Creek	1	50 35	119 35	762
Heffley Lake	1	50 48	120 00	914
Lac La Jeune	1	50 25	120 20	914
Millar Lake	1	50 35	119 40	762
Millar Lake	1	50 35	119 40	914
Millar Lake	1	50 35	119 40	1067
Stevens Meadows	1	50 23	119 46	914
Turtle Valley	1	50 46	119 29	610
Jacobie Creek	2	52 29	121 46	900
Lac La Hache	2	51 50	121 15	914
Likely	2	52 15	121 40	762
Little Fort	2	51 20	120 03	671
100 Mile House	2	51 30	121 05	914
Telegraph Trail	3	53 30	123 07	671
Boulder Creek	4	55 01	127 17	550
Buckley Lake	4	54 10	125 55	760
Cluculy Lake	4	53 50	123 20	625
Dog Creek	4	54 09	124 08	762
Ft. St. James	4	54 13	124 26	730
Ft. St. James	4	54 08	124 08	670
Hazelton West	4	55 00	127 40	300
Hazelton	4	55 00	127 20	310
Hazelton East	4	55 00	127 15	400
Inzana	4	54 50	124 00	900
Kitsequecla	4	55 04	127 39	600
Lynx Lake	4	53 38	122 53	820
North Road	4	54 36	124 07	762
Prince George	4	53 39	122 53	884
Red Rock	4	53 40	122 30	670
Stuart Lake	4	54 21	124 15	701
Stuart Lake	4	54 30	124 15	750
Takla	4	54 27	124 04	823
Takysie Lake	4	53 45	125 45	915

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Tatalapin Lake	4	54 16	125 20	850
Twain Creek	4	54 25	125 40	713
Woodpecker	4	53 34	122 30	670

Species: *Pinus contorta* Dougl. ex Loud. var. *latifolia* Engelm.
Common name: Lodgepole pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Subalpine

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Babine Lake	2	54 38	125 43	720
Mackenzie	2	55 05	122 50	640
Mackenzie	2	55 07	122 55	700
Mackenzie	2	55 10	123 00	670
Manson River	2	55 30	123 40	762
Nation River	2	55 31	123 35	731
Williston Lake	2	55 06	123 00	609

Species: *Pinus monticola* Dougl. ex D. Don
Common name: Western white pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Columbia

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Arrow Lakes	1	50 10	117 48	640
Bear Creek	1	50 46	119 46	513
Scotch Creek	1	51 02	119 23	762
West Adams	1	50 46	119 44	610

Species: *Pinus ponderosa* P. Laws. ex C. Laws
Common name: Ponderosa pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Montane

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Chase	1	50 40	119 41	335
Heffley Creek	1	50 52	120 14	640
Monte Creek	1	50 35	119 45	400
Pritchard	1	50 45	119 45	396
Pritchard	1	50 45	119 45	579
Pritchard	1	50 45	119 45	762
Sullivan Valley	1	50 52	120 09	651
Clinton	2	51 05	121 36	940

Species: *Pseudotsuga menziesii* (Mirb.) Franco var. *menziesii*
Common name: Douglas fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Coast

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Bowser	1	49 25	124 38	10
Duncan	1	48 40	123 32	10
Kuper Island	1	48 55	123 36	10
Ladysmith	1	49 00	123 49	10
Nanaimo Lakes	1	49 00	124 13	243
Nanoose	1	49 10	124 08	245
Parksville	1	49 15	124 12	10
Qualicum	1	49 15	124 15	10
Qualicum Beach	1	49 16	124 16	10
Shawnigan Lake	1	48 34	123 34	100
Somenos	1	48 43	123 25	50
Valdez Island	1	48 38	124 04	10
Victoria Highlands	1	48 25	123 23	50
Yellow Point	1	49 02	123 45	10
Big Tree Creek	2	50 10	125 40	152
Black Creek	2	49 35	124 55	91
Bowser	2	49 23	124 34	10
Campbell River	2	49 45	125 00	10
Cameron	2	49 07	124 44	488
Centre Creek	2	49 06	121 31	518
Chilliwack	2	49 06	121 39	335
Copper Canyon	2	48 52	123 57	610
Courtenay	2	49 39	124 53	10
Elk Falls	2	49 55	125 15	100
Hill 60	2	48 45	123 50	220
Iron River	2	49 51	125 21	533
Kelsey Bay	2	50 15	125 43	152
Nanaimo Lakes	2	49 03	124 46	305
Oyster River	2	49 48	125 03	10
Oyster River	2	49 52	125 20	305
Roberts Lake	2	50 10	125 25	200
Wolf Lake	2	49 43	125 08	180

Species: *Pseudotsuga menziesii* var. *glauca* (Beissn.) Franco
Common name: Rocky Mountain Douglas fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Columbia

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Arrow Lakes West	1	50 13	118 45	488
Bear Creek	1	50 46	119 45	513
Chase Creek	1	50 46	119 30	610
Chaser creek	1	50 40	119 34	630
Chase Creek	1	50 38	119 37	762
Eagle Bay	1	50 44	119 10	10
Lumby	1	50 54	119 11	518

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Lumby	1	50 48	119 45	671
Notch Hill	1	50 50	119 21	366
Shuswap North	1	50 55	119 33	366
Salmon Arm	1	50 40	119 08	762
Sorrento	1	50 52	119 25	366
Turtle Valley	1	50 47	119 26	549
Turtle Valley	1	50 45	119 28	650
Turtle Valley	1	50 48	118 25	762
Vavenby	1	51 37	119 41	762
West Adams	1	50 46	119 44	610
Adams Lake	2	51 25	119 27	457
Celista	2	50 57	119 17	427
Eagle Bay	2	50 55	119 05	350
Johnson Lake	2	51 08	118 47	975
North Adams	2	51 25	118 26	488

Species: *Pseudotsuga menziesii* var. *glauca* (Beissn.) Franco
Common name: Rocky Mountain Douglas fir
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Montane

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Barriere	1	51 11	120 08	457
Battleship	1	54 30	124 23	690
Bear Creek	1	50 46	119 37	513
Blackwater	1	53 14	123 18	850
Chase Creek	1	50 40	119 39	701
Cherryville	1	50 12	118 28	600
Clearwater	1	50 25	119 55	424
Ft. St. James	1	54 22	124 13	670
Gardom Lake	1	50 34	119 10	700
Hat Creek	1	50 49	121 30	792
Heffley Lake	1	50 49	120 02	900
Heffley Lake East	1	50 51	120 01	914
Johnson Lake	1	51 09	119 40	1100
Kamloops	1	50 32	120 25	1000
Lac La Hache	1	51 46	121 17	850
Loakin Creek	1	50 46	120 45	527
Lumby	1	50 18	118 53	850
Notch Hill	1	50 50	119 20	390
Pemberton Range	1	50 41	119 51	762
Shuswap River	1	50 13	118 51	579
Sullivan Valley	1	50 52	120 09	651
Tapen	1	50 45	119 15	356
Turtle Valley	1	50 46	119 30	610
Turtle Valley	1	50 46	119 25	425
Valentine Creek	1	50 32	119 47	870
West Adams	1	50 54	120 02	853
West Adams	1	50 48	119 49	1006
Birch Island	2	51 36	119 49	487
Clearwater	2	51 36	119 36	427
Clearwater	2	51 30	119 40	600

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Jones Creek	2	51 31	119 44	600
Little Fort	2	51 27	120 14	518
Little Fort	2	51 20	120 03	305
North Thompson	2	51 27	120 17	731
Timothy Lake	2	51 50	121 15	900
Timothy Mt.	2	51 51	121 16	1050

Species: *Thuja plicata* Donn ex D. Don
Common name: Western red cedar
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Coast

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Bowser	1	49 15	124 15	10
Galiano Island	1	48 56	123 27	107
Nanaimo	1	49 00	123 50	10
Parksville	1	49 13	124 12	10
Qualicum Beach	1	49 15	124 15	10
Shawnigan	1	48 34	123 33	305
Yellow Point	1	49 02	123 45	10
Campbell River	2	50 07	126 02	152
Campbell River	2	50 11	125 47	366
Courtenay	2	50 18	125 55	05
Courtenay	2	49 38	124 59	70
Mission	2	48 50	123 39	10
Sayward	2	50 18	125 53	01
Sooke	2	48 24	123 43	61
Masset	4	54 01	132 06	10

Species: *Thuja plicata* Donn ex D. Don
Common name: Western red cedar
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Columbia

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Eagle Bay	1	50 55	119 10	366
Shuswap Lake	1	50 46	119 25	450
Sicamous	1	50 49	118 59	380
Holmes Creek	2	53 14	120 01	800

Species: *Tsuga heterophylla* (Raf.) Sarg.
 Common name: Western hemlock
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Coast

Place Name	Forest Section	Latitude (° ')	Longitude (° ')	Elevation (m)
Campbell River	2	50 17	126 02	457
Courtenay	2	50 18	125 50	10
Courtenay	2	50 07	125 52	152
Ladysmith	2	49 21	124 25	10
Mission	2	49 15	122 18	620
Salmon River	2	50 15	125 50	10
Sooke	2	48 22	123 44	77
Masset	4	53 57	132 36	10

Species: *Tsuga heterophylla* (Raf.) Sarg.
 Common name: Western hemlock
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Columbia

Place Name	Forest Section	Latitude (° ')	Longitude (° ')	Elevation (m)
Crescent Spur	2	53 32	120 43	800

Yukon Territory

Species: *Abies lasiocarpa* (Hook.) Nutt.
 Common name: Subalpine fir
 Type of basic material: Seed collection source
 Origin: Indigenous
 Region of Provenance: Boreal

Place Name	Forest Section	Latitude (° ')	Longitude (° ')	Elevation (m)
Haechel Hill	26b	60 44	135 13	1100
Jackson Lake	26b	60 37	134 54	1066
Montana Mt.	26b	60 06	134 40	1067
Canol Road	26c	60 33	133 00	1180
Ethel Lake	26c	63 19	136 20	950

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Boreal

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Upper Liard	24	60 03	128 51	600
Tagish	26b	60 18	133 57	670
Rusty Creek	26c	63 28	136 25	550

Species: *Picea mariana* (Mill.) BSP
Common name: Black Spruce
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Boreal

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Clear Creek	26a	63 37	137 31	575
Km. 655	26a	63 54	138 27	650
Crooked Creek	26b	63 10	136 25	900
Jakes Corner	26b	60 20	133 53	740

Species: *Pinus contorta* Dougl. ex Loud. var. *latifolia* Engelm.
Common name: Lodgepole pine
Type of basic material: Seed collection source
Origin: Indigenous
Region of Provenance: Boreal

Place Name	Forest Section	Latitude (°) (')	Longitude (°) (')	Elevation (m)
Liard	24	60 00	129 00	670
Simpson Lake	24	60 30	129 00	750
Tom Creek	24	60 00	128 30	650
Upper Liard	24	60 00	129 06	701
Watson Lake	24	60 04	128 44	680
Gravel Lake	26a	63 48	137 50	580
Bearfeed Creek	26b	62 03	135 05	610
Carmacks	26b	62 02	135 56	600
Chadburn Lake	26b	60 37	134 53	640
Eagles Bluff	26b	62 00	135 30	550
Five Finger Mt.	26b	62 09	136 15	650
Hillcrest	26b	60 40	135 03	600
Ibex River	26b	60 42	135 27	860
Jakes Corner	26b	60 17	134 00	732
Johnson Crossing	26b	60 20	133 13	683
Lake Laberge	26b	60 38	134 54	650
Little Atlin	26b	60 02	133 47	701
Little Salmon	26b	62 02	135 33	550
Long Lake	26c	60 37	134 55	610
Lorne	26b	60 17	134 45	610

Place Name	Forest Section	Latitude (° ')	Longitude (° ')	Elevation (m)
Marsh Lake	26b	60 32	134 23	655
McClintock	26b	60 28	134 15	671
McGregor Creek	26b	62 20	136 25	520
Minto	26b	62 36	136 50	515
Pelly	26b	62 53	136 43	650
Quiet Lake	26b	60 55	132 55	870
Scout Lake	26b	60 47	135 23	860
Squanga	26b	60 25	133 40	730
Squanga Lake	26b	60 25	133 15	704
Spirit Lake	26b	60 14	134 44	700
Swan Lake	26b	60 38	134 54	650
Tagish	26b	60 09	134 15	800
Takhini	26b	60 12	135 51	660
Tarfu Creek	26b	60 03	133 47	750
Tatchum Lake	26b	62 08	135 44	540
Teslin	26b	60 03	132 23	608
Whitehorse	26b	60 38	134 55	650
Yukon Crossing	26b	62 21	136 26	480
Conservative Trail	26c	63 39	136 30	600
Eleven %	26c	63 09	136 26	600
Ethel Lake	26c	63 17	136 27	550
Ethel Lake	26c	63 17	136 27	650
Frances Lake	26c	60 52	129 12	760
Jackfish Lake	26c	63 03	136 23	760
Hyland River	26c	61 25	128 10	900
Mayo	26c	63 18	136 30	609
Rusty Creek	26c	63 28	136 25	600
Stewart Crossing	26c	63 20	136 38	480
Stewart Crossing	26c	63 25	136 05	518
Tungston	26c	60 55	128 35	940

Untested seed orchard category

In the following tables, the information under the "Orchard site" heading describes the seed orchard location. The information under the "Altitudinal range" heading describes the area from which the parental trees were obtained.

British Columbia

Species: *Abies grandis* (Dougl. ex D. Don) Lindl.
Common name: Grand fir
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Coast

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-011(BC)	Cassidy	1	49 03	123 55	120	1.26	0-200

Species: *Picea sitchensis* (Bong.) Carrière
Common name: Sitka spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Coast

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-007(BC)	Victoria	1	48 30	123 22	30	2.2	0-300
CDN-010(BC)	Victoria	1	48 30	123 22	30	0.4	0-350
CDN-012(BC)	Ladysmith	1	49 03	123 48	50	0.6	0-300

Species: *Pseudotsuga menziesii* (Mirb.) Franco var. *menziesii*
Common name: Douglas fir
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Coast

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-001(BC)	Saanichton	1	48 35	123 24	46	3.4	450-1010
CDN-002(BC)	Saanichton	1	48 35	123 24	46	1.3	50-490
CDN-003(BC)	Saanichton	1	48 35	123 24	46	6.0	300-1010

Species: *Thuja plicata* Donn ex D. Don
Common name: Western red cedar
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Coast

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-006(BC)	Victoria	1	48 30	123 22	30	1.5	0-600
CDN-008(BC)	Victoria	1	48 30	123 22	30	1.1	0-650

Species: *Tsuga heterophylla* (Raf.) Sarg.
Common name: Western hemlock
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Coast

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-004(BC)	Victoria	1	48 30	123 22	30	3.6	0-450
CDN-005(BC)	Victoria	1	48 30	123 22	30	2.4	300-900
CDN-009(BC)	Victoria	1	48 30	123 22	30	1.1	0-500

New Brunswick

Species: *Larix laricina* (Du Roi) K. Koch
Common name: Tamarack
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-04B(NB)	Queensbury	10	46 23	66 03	170	8.0	0-400
CDN-10E(NB)	Parkindale	3	45 53	65 02	142	9.8	0-400
CDN-021(NB)	Porter Settlements	10	45 24	67 24	152	4.5	0-400

Species: *Picea abies* (L.) Karst.
Common name: Norway spruce
Type of basic material: Seed orchard
Origin: Non-indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-10B(NB)	Parkindale	3	45 53	65 02	142	7.0	0-400

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-03A(NB)	Pokiok	4	45 56	67 10	100	8.0	0-400
CDN-04A(NB)	Queensbury	10	46 23	66 03	170	9.0	0-400
CDN-10C(NB)	Parkindale	3	45 53	65 02	142	24.6	0-400

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Great Lakes-St. Lawrence

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-007(NB)	Ste. Anne	6	47 10	67 59	150	5.1	0-400

Species: *Picea mariana* (Mill.) BSP
Common name: Black spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-001(NB)	Bettsburg	3	46 48	66 26	140	32.0	0-400
CDN-03B(NB)	Pokiok	4	45 56	67 10	100	6.0	0-400
CDN-006(NB)	Three Brooks	4	46 52	67 28	115	13.5	0-400
CDN-10A(NB)	Parkindale	3	45 53	65 02	142	14.1	0-400
CDN-013(NB)	Sirois Road	4	47 10	67 25	305	4.0	0-400
CDN-015(NB)	Deersdale	4	46 40	66 59	400	4.0	0-400

Species: *Picea mariana* (Mill.) BSP
Common name: Black spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Great Lakes-St. Lawrence

Orchard site							
Orchard reg. No.	Place name	Forest section	Lat. (°) (')	Long. (°) (')	Elev. (m)	Area (ha)	Altitudinal range (m)
CDN-005(NB)	Second Falls	6	47 27	68 14	170	2.0	0-400
CDN-020(NB)	Hayes Lot	6	47 58	66 18	70	4.0	0-400

Species: *Pinus banksiana* Lamb.
Common name: Jack pine
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard site							
Orchard reg. No.	Place name	Forest section	Lat. (°) (')	Long. (°) (')	Elev. (m)	Area (ha)	Altitudinal range (m)
CDN-002(NB)	Otter Brook	3	46 38	66 15	140	25.0	0-400
CDN-10D(NB)	Parkindale	3	45 53	65 02	142	10.5	0-400

Nova Scotia

Species: *Picea abies* (L.) Karst.
Common name: Norway spruce
Type of basic material: Seed orchard
Origin: Non-indigenous
Region of Provenance: Acadian

Orchard site							
Orchard reg. No.	Place name	Forest section	Lat. (°) (')	Long. (°) (')	Elev. (m)	Area (ha)	Altitudinal range (m)
CDN-01A(NS)	Debert	12	45 25	63 25	31	10.8	0-400
CDN-05B(NS)	East Mines	12	45 25	63 31	76	4.0	0-400

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-01C(NS)	Debert	12	45 25	63 25	31	8.5	0-400
CDN-05C(NS)	East Mines	12	45 25	63 31	76	5.8	0-400
CDN-06B(NS)	Waterville	12	45 05	64 42	31	5.3	0-400

Species: *Picea mariana* (Mill.) BSP
Common name: Black spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-05A(NS)	East Mines	12	45 25	63 31	76	5.0	0-400
CDN-007(NS)	Aldershot	12	45 05	64 35	23	5.8	0-400

Species: *Picea rubens* Sarg.
Common name: Red spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-01B(NS)	Debert	12	45 25	63 25	31	7.6	0-400
CDN-004(NS)	Melvern Mines	12	44 58	64 59	31	4.3	0-400
CDN-06A(NS)	Waterville	12	45 05	64 42	30	5.2	0-400

Species: *Pinus strobus* L.
Common name: Eastern white pine
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-01D(NS)	Debert	12	45 25	63 25	31	2.1	0-400

Prince Edward Island

Species: *Larix laricina* (Du Roi) K. Koch
Common name: Tamarack
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-01C(PEI)	Dover	8	62 38	46 01	36	1.1	0-400
CDN-003(PEI)	Gaudet Nursery	8	63 11	46 16	8	1.5	0-400

Species: *Picea glauca* (Moench) Voss
Common name: White spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-01B(PEI)	Dover	8	62 38	46 01	36	2.3	0-400

Species: *Picea mariana* (Mill.) BSP
Common name: Black spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-002(PEI)	48 Road, Kings Co.	8	62 39	46 14	30	4.0	0-400

Species: *Picea rubens* Sarg.
Common name: Red spruce
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-01A(PEI)	Dover	8	62 38	46 01	36	2.5	0-400

Species: *Pinus strobus L.*
Common name: Eastern white pine
Type of basic material: Seed orchard
Origin: Indigenous
Region of Provenance: Acadian

Orchard reg. No.	Place name	Forest section	Orchard site		Elev. (m)	Area (ha)	Altitudinal range (m)
			Lat. (°) (')	Long. (°) (')			
CDN-01D(PEI)	Dover	8	62 38	46 01	36	2.8	0-400

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Appendix 1

Forest Region and Section

Canadian OECD certifications are presently applied but not restricted to the following Forest Regions and Sections.

Boreal Forest Region

This region comprises the greater part of the forested area of Canada, forming a continuous belt from Newfoundland and the Labrador coast westward to the Rocky Mountains and northwestward through the Yukon Territory. Coniferous species include white and black spruce, tamarack, balsam and subalpine fir, and jack and lodgepole pine.

- B.18a Mixedwood
- B.19a Lower Foothills
- B.19b Northern Foothills
- B.19c Upper Foothills
- B.23a Upper Mackenzie
- B.24 Upper Liard
- B.26a Dawson
- B.26b Central Yukon
- B.26c Eastern Yukon

Subalpine Forest Region

This coniferous forest is found on the mountain uplands of western Alberta and British Columbia. Characteristic species include Engelmann spruce, subalpine fir, and lodgepole pine.

- SA.2 Interior Subalpine

Montane Forest Region

This region comprises the central plateau of British Columbia and several southern mountain valleys adjacent to the Alberta boundary. The characteristic species is Douglas-fir but also included are lodgepole pine, subalpine fir, white spruce, and ponderosa pine.

- M.1 Ponderosa Pine and Douglas-fir
- M.2 Central Douglas-fir
- M.3 Northern Aspen
- M.4 Montane Transition

Coast Forest Region

This region contains the forests of the Pacific Coast. Characteristic species include western red cedar, Sitka spruce, western hemlock, Douglas-fir, and amabilis and grand fir.

- C.1 Strait of Georgia
- C.2 Southern Pacific Coast
- C.3 Northern Pacific Coast
- C.4 Queen Charlotte Islands

Columbia Forest Region

This region covers an area of southeastern British Columbia resembling the Coast region but contains fewer species. These include western red cedar and western hemlock in association with Douglas-fir, western white pine, and grand fir.

- CL.1 Southern Columbia
- CL.2 Northern Columbia

Great Lakes-St. Lawrence Forest Region

This region includes the Great Lakes and the St. Lawrence River valley which contains a forest of very mixed nature. The species mix consists of eastern white and red pines, white and black spruce, and red spruce in association with several deciduous species.

- L.6 Temiscouata-Restigouche

Acadian Forest Region

This region covers the greater part of the Maritime Provinces. The forests are closely related to the Great Lakes-St. Lawrence Forest Region and to a lesser extent, the Boreal Forest Region. Red spruce is a characteristic species in association with balsam fir, deciduous species, and red and eastern white pine.

- A.3 Eastern Lowlands
- A.4 Carelton
- A.8 Prince Edward Island
- A.10 Southern Uplands
- A.12 Central Lowlands