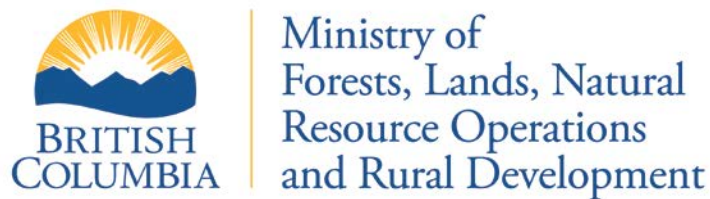

OPERATIONAL TREE IMPROVEMENT PROGRAM

CALL FOR PROPOSALS 2018/2019

DEADLINE FOR SUBMISSIONS: 15 DECEMBER 2017



Forest Improvement and Research Management Branch



Forest Genetics Council

Operational Tree Improvement Program

November 7, 2017

Dear Recipients:

This *Call for Proposals for the Operational Tree Improvement Program, 2018-2019* is issued by the Forest Improvement and Research Management Branch, Ministry of Forest, Lands, Natural Resource Operations and Rural Development. This annual call has been prepared in accordance with the Government of British Columbia's procurement policies and procedures, and in collaboration with the Forest Genetics Council of British Columbia (FGC) and its Coastal and Interior Technical Advisory Committees.

The overarching objective of this Call for Proposals is to increase the quantity of high quality seed used for operational planting in British Columbia's forests. Funding for this program will be provided under the Ministry's Land Based Investment Strategy (LBIS).

Please take note of the following items relevant to the 2018/19 Call for Proposals:

- The FGC has approved the streamlining of the Operational Tree Improvement Program (OTIP) and Cone and Seed Pest Management subprogram as follows:
 - Operational projects are no longer separated into "coastal" vs. "interior".
 - Technical projects now include proposals relating to pest management and research.
 - A single review committee will review and score all proposals received under this call.
 - Specific expertise may be added to assist in the review of technical proposals.
- Tables 1, 4 and 5 have been merged and extensively revised into a new Table 1, which summarizes seed availability for all SPUs in the province. The table no longer includes eligibility criteria by work type. It is the responsibility of proponents to demonstrate how their proposed work achieves the objective of this call.
- Standardized costs have been removed for Interior orchards. Proponents are required to calculate reasonable costs based on KPI in the Budget Spreadsheet; these values no longer auto-calculate.
- Technical projects must be sponsored by an Orchard Manager who must sign the proposal.
- Note that there is no space to list a project number this year. Project numbers will be assigned to proposals as they are received by the OTIP Coordinators. Project numbers from previous years will not apply.
- Please submit one proposal per SPU. Multiple orchards may be included in the same proposal provided they are all in the same SPU.
- ***Please note that proposal documents (application form and budget form) must be submitted in their original Word/Excel formats.*** Proposals submitted as PDF documents will be returned.

The **submission deadline for proposals this year is Friday, December 15, 2017 at 4:00 pm** and all proposals are to be sent to TreelImprovement.Proposals@gov.bc.ca. Please refer to the application and budget forms for greater detail on the submission.

Please be aware that final approval of all projects is subject to the availability of funding, and recommendations and priorities assigned to the proposal from the review committee and FGC. The review will take place in January 2018. Work must not proceed until a Ministry signed contract is in place.

If you have questions or require further information, please contact us at **250-356-1651** or by e-mail at TreeImprovement.Proposals@gov.bc.ca.

Sincerely,

Darrell Wood / Alana Phillips
Co-coordinators, OTIP
Forest Improvement and Research Management Branch
Ministry of Forests, Lands, Natural Resource Operations and Rural Development
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Table of Contents

1. Introduction	1
1.1. Important notes	1
1.2. Restrictions	1
2. Project Eligibility	2
2.1 Orchard redundancy and seed in storage	5
2.2 Project Categories	5
2.3 Supplemental mass pollination use and funding guidelines	6
3. Evaluation and Review.....	7
3.1 Review Process	7
3.2 Evaluation Criteria.....	7
3.3 Disbursal of Funds and Financial Considerations	7
3.4 Performance Indicators and Management	8
4. Submission of Applications	8
4.1 Instructions for Submission of Applications.....	8
4.2 Timeline from Proposal Submission to Contract	8
5. Reporting Procedures.....	9
5.1 Financial reporting and performance statistics.....	9
5.2 Reporting for technical support projects.....	9
6. Guidelines for Completing the Application and Budget Forms	9
6.1 Guidelines for Completing the Application Form (Word file).....	9
6.2 Grouping orchards by SPU	11
6.3 Guidelines for Completing the Budget Form (Excel file)	11
6.4 Avoiding Difficulties.....	13
6.5 Sample OTIP Application Form for 2018/2019 - Operational Projects	14
6.6 Sample OTIP Budget Spreadsheet for 2017-19 - Operational Projects	16
Appendix A: Sample Application for an Operational Project.....	18
Appendix B: Sample Application for a Technical Project	24
List of Tables	
Table 1. Estimated seed availability for 2018/19, by SPU and FGC Objectives.....	3
Table 2. Work categories and descriptions for eligible activities.	5
Table 3. Recommendations for the use and funding of supplemental mass pollination.....	6
Table 4. Guidelines for Completing the OTIP Application Form (Word document)	9

Call for Proposals

1. Introduction

This is a Call for Proposals for funding under the Forest Genetics Council of British Columbia's (FGC) Operational Tree Improvement Program (OTIP) for 2018-2019. This program is funded by the Land Based Investment Strategy (LBIS) and administered by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD, henceforth "the Ministry").

Proposals under this call will be received from any individual or organization with an interest in projects that are eligible under the guidelines set out in this document, including seed producers and users, tree breeders, nursery propagation facilities, and other groups.

This program is designed for operational investment in tree improvement. Technical support projects, including pest management studies, which fill information gaps that prevent or slow progress to FGC objectives, may be acceptable. Technical support projects must incorporate a rigorous experimental design that will allow objective analysis and interpretation of results. Project eligibility criteria are developed by the Forest Genetics Council's Interior Technical Advisory Committee (ITAC) and Coastal Technical Advisory Committee (CTAC). Species Plans that are developed for specific seed planning units in BC provide guidance to proponents and to reviewers. Updated Species Plans can be found online after Nov 15th, 2017 at <http://www.fgcouncil.bc.ca/doc-04-speciesplans.html>.

The Call for Proposals, Application forms, and Budget spreadsheets are available for download on the Ministry's [Forest Improvement and Research Management Branch - OTIP website](#). Additionally, the Ministry will post any addenda to the Call for Proposal package to this website.

1.1. Important notes

Final approval of all projects is subject to the availability of funds. No work may proceed without a valid contract in place with the Ministry.

The application and review processes are similar to last year. The budget spreadsheet posted on the OTIP website must be used by Proponents. This spreadsheet helps reviewers interpret requests and compare proposals. In addition, there is some reorganization of activities and the removal of some activities in this year's call. Eligibility guidelines are described in the section entitled General Guidelines.

Priority will be given to proposals that

- support FGC objectives set out in the FGC Strategic Plan for 2015-2020
- upgrade seed orchards to improve the long-term genetic quality of select seed
- increase the production of genetically-selected seed or cuttings for seed planning units (SPU) where current supplies do not meet demand
- address critical technical needs
- reduce tree seed losses and improve the health and management of B.C.'s tree seed orchards.

1.2. Restrictions

The following restrictions apply to this Call For Proposals:

- The proposed project must be conducted in tree seed orchards located in B.C.
- Proponents must own or operate a tree seed orchard in B.C. or have an agreement with an owner or operator of a tree seed orchard in B.C. Proponents who do not own or manage a seed orchard must partner with or obtain an agreement or letter of support from an orchard owner or manager to conduct the project. The sponsoring orchard owner/manager must also sign the proponent's OTIP application.
- Proposals for more than one fiscal year in duration will be considered on a year-to-year basis.
On-going multi-year projects that received approval last year must reapply under this call and

submit a progress report. On-going projects will be evaluated relative to other projects submitted under this call. Project approval last year does not guarantee funding for 2018-2019.

- Funding is only recommended through an objective review process by a review committee set up by the Ministry in collaboration with FGC's Interior and Coastal Technical Advisory Committees.
- **Establishment of new orchards and expansion of existing orchards will not be considered under this call.**
- Crop harvest and other orchard management activities that are considered to be ongoing operating activities are not eligible under this call.
- Material produced must be intended for use on Crown lands within the timber harvest land base, excluding TFLs, community forests, woodlots and private lands. Investments in all projects are intended to benefit the people of British Columbia and are not intended for personal or private gain.
- Use of pesticides must be done in accordance with federal and provincial regulations, including those prescribed by the Pesticide Management Regulatory Agency.

2. Project Eligibility

Table 1 includes seed availability by Seed Planning Unit and FGC's strategic objectives. Program categories (SPU rankings 1 to 3) are also based on economic criteria.

Priority will be given to proposals that

- advance the FGC objectives for select seed use, increased genetic worth, and increased availability and deployment of pest-resistant planting stock;
- are aimed at enhancing production of high quality seed (including propagules, vegetative cuttings, or other regenerative material) for species in areas where current supplies do not meet demand;
- are consistent with general funding principles.

If proponents submit proposals for projects for an SPU where sufficient seed is available, they must clearly identify the activity being proposed and justify why this project should be considered under the broader strategic objectives set out in the FGC Strategic Plan for 2015-2020.

Operational Tree Improvement Program

Table 1. Estimated seed availability for 2018/19, by SPU and FGC Objectives

Seed Planning Unit (SPU)				Program category*	SO #'s	Average 5-Yr Use	FGC Objectives #3 (75% Select Seed Use by 2020) and #4 (20% GW by 2020)							
#	Spp	SPZ	Elev				Years Class A seed in storage (>GW 4)	Current highest seedlot GW.	GW of top orchard	75 % of top seedlot GW	75% of top orchard GW	# Seedl. (mm) >= 75% top seedlot GW	# Seedl. (mm) >= 75% top orch. GW	Years seed in storage GW > 75% of seedlots or orch. capacity**
1	Fdc	M	1-900	1	134, 154, 166, 405, 183, 197, 199	14.0	2.6	20	20	15	15	6.0	6.0	0.4
2	Cw	M	1-700	1	140, 152, 190, 184, 198, 408	7.0	5.8	24	20	18	15	25.1	25.1	3.6
3	Hw	M	1-600	2	170, 182	0.9	16.7	18	16	14	12	8.1	8.1	9.1
4	Sx	NE	1000-1700	1	301, 305	9.7	7.6	26	22	20	17	15.4	17.7	1.8
5	Sx	NE	1700-2100	2	302, 306	2.0	25.6	18	21	14	16	34.5	5.6	17.4
6	Ss	M	1-500	2	144, 172 192, 195	0.9	3.9 (>=GWr86)	R87	R87			3.7	3.7	4.0
7	Pli	NE	700-1600	1	307, 313, 337, 347	2.6	8.9	20	20	15	15	4.7	4.7	1.8
8	Pw	M/SM	1-1000	1	175, 403	0.4	4.6	R50	R50			2.0	2.0	4.4
10	Pli	TO	700-1400	1	311, 338, 350	5.3	2.9	20	18	15	14	15.1	15.1	2.9
11	Yc	M	1-1100	2	191 + hedges	1.1	0.0	NA	22		17	0.0	0.0	0.0
12	Pli	PG	700-1400	1	220, 222, 236, 237, 352, 244	22.0	0.1	18	17	14	13	2.4	2.4	0.1
13	Lw	NE	450-1600	1	332	2.9	5.3	30	29	23	22	14.6	14.6	5.1
14	Sx	PG	600-1400	1	211, 247	39.2	2.4	38	31	29	23	1.8	34.5	0.9
15	Pw	KQ	500-1400	1	335, 609, 351	1.1	3.3	R65	R65			2.8	2.8	2.5
16	Pli	TO	1400-1600	2	310, 339	5.5	0.1	20	20	15	15	0.7	0.7	0.1
17	Pli	BV	700-1400	1	219, 228, 234, 240, 230, 245	22.4	0.2	18	16	14	12	1.8	2.4	0.1
18	Pli	CP	700-1300	1	218, 223, 238, 241, 246, 352	17.9	0.1	22	22	17	17	1.2	1.2	0.1
19	Fdc	SM	200-1000	2	181	1.5	0.2	16	19	12	14	0.3	0.3	0.2
20	Pli	NE	1600-2000	2	349	1.3	0.1	16	15	12	11	0.2	0.2	0.1
21	Fdi	NE	400-1000	1	321	4.0	0.8	28	25	21	19	3.2	3.2	0.8
22	Fdi	NE	1000-1800	2	324	2.4	1.0	34	34	26	26	2.5	2.5	1.0
24	Hw	M	600-1100	2	187, 130, 143/196	0.4	38.3	14	13	11	10	5.6	5.6	5.6
25	Sx	EK	750-1900	2	304R, 356	3.6	18.9	30	22	23	17	51.2	57.3	15.8

*Program Categories: 1=Advanced-generation program; 2= First-generation program; 3=Genecology Research

**Calculates the number of years of seed supply using seedlots with GWs greater than or equal to 75% of either the highest seedlot GW, or 75% of the highest orchard GW, whichever is greater.

Table 1 (cont'd). Estimated seed availability for 2018/19, by SPU and FGC Objectives

Seed Planning Unit (SPU)				Program category *	SO #'s	Average 5-Yr Use	FGC Objectives #3 (75% Select Seed Use by 2020) and #4 (20% GW by 2020)							
#	Spp	SPZ	Elev				Years Class A seed in storage (>GW 4)	Current highest seedlot GW.	GW of top orchard	75 % of top seedlot GW	75% of top orchard GW	# Seedl. (mm) >= 75% top seedlot GW	# Seedl. (mm) >= 75% top orch. GW	Years seed in storage GW > 75% of seedlots or orch. capacity **
28	Sx	TO	1300-2100	2	343	5.5	1.0	24	18	18	14	4.9	4.9	0.9
30	Sx	TO	700-1500	1	342	2.3	1.1	26	24	20	18	1.5	1.5	0.6
31	Fdc	M	900-1200	2	406	0.2	12.1	8	13	6	10	0.2	0.0	1.1
32	Pli	EK	800-1500	2	340	2.6	0.2	12	12	9	9	0.2	0.2	0.1
34	Lw	EK	800-1700	1	333	4.0	12.4	28	27	21	20	36.1	36.1	9.0
35	Sx	BV	500-1400	2	207, 208, 229, 620, 243	12.4	4.1	36	33	27	25	9.9	9.9	0.8
37	Fdi	QL	700-1400	2	226, 232	1.2	2.5	32	26	24	20	2.8	2.8	2.5
39	Fdi	EK	700-1400	2	336	0.9	0.2	26	25	20	19	0.2	0.2	0.2
40L	Sx	PR low	250-650	2	213	0.7	9.0	12	6	9	5	4.6	5.9	9.0
40M	Sx	PR mid	650-1200	2	212	8.5	3.6	23	23	17	17	28.9	28.9	3.4
41	Fdi	PG	700-1200	2	225, 233	1.0	3.6	30	29	23	22	3.5	3.5	3.6
42	Sx	PG	1200-1550	2	239	3.9	11.7	16	14	12	11	46.1	46.1	11.7
43	Fdi	CT	600-1400	2	231	1.3	3.5	28	18	21	14	3.3	4.5	3.5
44	Sx	NE	1-1000	1	341	0.9	23.2	26	25	20	19	11.6	11.6	12.9
50	Lw	NE	1200-1800	2	353	0.5	2.2	14	13	11	10	1.0	1.0	2.2
51	Py	S. Int.	300-1000	2	345, 346	0.7	0.1	8	9	6	7	0.1	0.1	0.1
52	Fdi	TO	600-1100	2	355	1.3	0.0	22	22	17	17	0.0	0.0	0.0
53	Fdi	TO	1100-1600	2	354	2.4	0.0					0.0	0.0	0.0
54	Dr	M	1-700	2	409, 410	0.4	2.0	32	28	24	21	0.7	0.7	2.0

*Program Categories: 1=Advanced-generation program; 2= First-generation program; 3=Genecology Research

**Calculates the number of years of seed supply using seedlots with GWs greater than or equal to 75% of either the highest seedlot GW, or 75% of the highest orchard GW, whichever is greater.

Operational Tree Improvement Program

2.1 Orchard redundancy and seed in storage

Projects associated with SPUs with a large amount of moderate gain or better seed already in storage will receive a lower priority or may be deemed ineligible by review committees.

Similarly, where significant orchard redundancy exists, projects may be given a low priority by review committees if a redundant orchard is considered to be a lower priority than another orchard providing seed for the same SPU. Orchard redundancy is defined as seed production capacity in excess of the current or projected seed demand for a SPU.

Full OTIP eligibility will apply to orchards under situations of redundancy where the total amount of seed in storage (all seed owners combined) is less than a 5-year supply of seed at a genetic worth that is within 25% of the GW of the best available lots for the SPU (for example, if the best lots have a GWg of 20, then the total seed with a GWg of 15 or more will be used to test for a 5-year supply).

Projects that aim to increase seed quantity for SPUs that have >5 year seed supply of seedlots with a GW within 25% of the SPU's target GW, may not be eligible to receive funding under this call. This is subject to review committee discretion and proponents who make a compelling case for funding under a situation of redundancy may still be eligible for support under this call.

Refer to SPU species plans posted at: <http://fgcouncil.bc.ca/doc-04-speciesplans.html> for list of orchards producing seed for each SPU.

2.2 Project Categories

Eligible OTIP (non-technical) projects are shown in Table 2. The use of these categories and the associated key performance indicators are required for budgeting and reporting. This standardization allows comparisons among projects and simplifies budget development and reporting.

If a category or KPI in Table 2 is not applicable to a project, develop KPIs that are suitable for the proposed work, and use these consistently for budget and reporting purposes. Applications for funding must also identify projects using this category numbering system.

Projects under category numbers **325, 326**, and crop management aspects of **341 and 342** will not normally be supported if there is a 5-or-more year supply of seed as described in Table 1. Proponents proposing work in these categories must provide justification as to why this should be considered under the broader strategic objectives set out in the FGC Strategic Plan for 2015-2020.

Table 2. Work categories and descriptions for eligible activities.

Category #	Category performance indicator description	Description of eligible activities
321	# of ramets grafted	<ol style="list-style-type: none"> 1. Rootstock production, grafting, and graft maintenance for replacement ramets only 2. Grafting additional ramets from parents selected at an early age with the intent of culling some lower-gain parents following a later progeny-test assessment may be acceptable. Provide a clear description and rationale.
322	# of ramets in holding	<ol style="list-style-type: none"> 1. Holding grafts for ramet replacement in an existing seed orchard 2. Maintenance and pruning grafts held for replacement
323	# of ramets replaced in orchards	<ol style="list-style-type: none"> 1. Planting, establishing local irrigation (not irrigation system), tagging, mulching, etc. 2. For up to six years after planting, the following activities carried out on replacement ramets are eligible for support: <ul style="list-style-type: none"> • Fertilization (fertilizer purchase and application) • Foliar analysis
324	# of ramets rogued in orchards	<ol style="list-style-type: none"> 1. Ramet removal 2. Reasonable levels of site clean-up following ramet removal <p>Describe the reason for roguing (i.e. increasing gain)</p>

325	# of ramets treated with Supplemental Mass Pollination (SMP), and pollen monitoring	<ol style="list-style-type: none"> 1. Pollen collection or purchase 2. Pollen application 3. Pollen monitoring
326	# of ramets induced for cone production	<ol style="list-style-type: none"> 1. Application of hormones using accepted techniques 2. Girdling using accepted techniques
331	# of donor plants for cutting production	<ol style="list-style-type: none"> 1. Production and maintenance of operational cutting donor plants for up to three years after grafting or rooting.
341	# of ramets treated for insects.	<p><i>Methods must be appropriate for the pests and all applications must follow existing PMRA regulations. Proposed off-label uses of pesticides for orchard operations will not be funded. Treatment applies only to the control of cone and seed pests and to pests that impact ramet health and future cone production.</i></p> <ol style="list-style-type: none"> 1. Pesticide purchase 2. Application of pesticides 3. Physical activities to remove or reduce pests such as clipping branches or removal of pitch moth
342	# of ramets treated for non-insect pests	<p><i>Methods must be appropriate for the pests and all applications must follow existing regulation. Applies only to the control of cone and seed pests and to pests that impact ramet health and future cone production.</i></p> <ol style="list-style-type: none"> 1. Control of diseases that impact ramet health and/or seed production 2. Control of vertebrates that impact ramet health and/or seed production (baiting for gophers is no longer supported)
343	# of ramets monitored for pests	<ol style="list-style-type: none"> 1. Surveys for pest control purposes
350	Technical support projects: # of reports on project progress and results	For use in Technical Projects only – please use the budget form for Technical Projects.

2.3 Supplemental mass pollination use and funding guidelines

Table 3 sets out circumstances when SMP may be supported through OTIP funding. Review committees may allow SMP support for circumstances not shown below if compelling arguments are made. Also, review committees may disallow support for situations shown below if other factors mitigate against the work (i.e. if there is already a large supply of high-gain seed).

Table 3. Recommendations for the use and funding of supplemental mass pollination

Orchard Activity	Criteria
1. Seed Production	Inadequate orchard pollen cloud (i.e., young orchard and in some circumstances pollination of early or late clones). Orchards with an adequate pollen supply will not normally be considered for SMP.
2. Reduce Selfing	High (>30%) selfing rates expected due to few in-orchard clones producing pollen, or for species where selfing rates are known to exceed 30% frequently – particularly on trees with large cone crops (e.g., Cw).
3. Lift in Gain	Orchard pollen has at least 10% greater GW than the orchard average GW

* All pollen lots used within an SMP mix must be tested for viability prior to application. Only viable lots should be used.

3. Evaluation and Review

3.1 Review Process

A Review Committee will review, evaluate, score and rank projects received that meet application criteria. Review committee members will be selected by the chairs of the Interior Technical Advisory Committee and the Coastal Technical Advisory Committee of the Forest Genetics Council of BC in collaboration with the Ministry. In addition, technical experts may be invited to evaluate technical proposals.

The Review Committee reserves the right to reject proposals that are unclear, do not have accurate budget tables, or provide ambiguous or conflicting information.

3.2 Evaluation Criteria

Projects must demonstrate they will improve seed supply or genetic worth for an SPU, using Table 1 as a reference, or demonstrate how the projects will make a significant contribution to FGC objectives. Proposals will also be evaluated based on the Program Category for the SPU.

All projects will be evaluated and ranked based on the following categories and weights:

Evaluation Criteria		
Cost effectiveness	30%	The cost of producing the product on either a per KPI ¹ basis or overall cost in comparison to alternatives. Where innovative approaches are being used, a description of the technique should be detailed in the <i>Procedure and Budget</i> sections of the application.
Impact and value of the product	50%	Product need, impact, and value to advancing overall FGC objectives for the quantity and quality of seed or cutting donor material. Program category 1 SPU with low banked seed of high quality will receive higher impact scores than program category 2 SPU.
Feasibility, or chance of success	20%	Project feasibility and chance of success based on current practices knowledge, and available personnel and resources.

¹ KPI = Key Performance Indicator

3.3 Disbursal of Funds and Financial Considerations

Projects will be funded in consideration of the review committee's rankings. Projects that fail to meet application criteria, or are not considered by review committees to be worth support, will not be recommended for funding. Where available funds are inadequate to cover all worthwhile projects, committee rankings will be used to determine which projects are funded.

Final recommendations regarding project funding rests with the Ministry. The Ministry reserves the right to recommend removal or partially fund projects based on total available funds.

The Ministry's Forest Improvement and Research Management Branch (FIRM) will administer contracts and funds for this program. All projects, including those submitted by Ministry staff, are subject to review under the same process and criteria set out in this Call for Proposals. Successful non-Ministry projects will be processed using a contract type suited to the work and services by the proponent. These contracts will be administered in April 2018 following budget allocation.

3.4 Performance Indicators and Management

The Land Based Investment Strategy is the funding agency for the Operational Tree Improvement Program. It requires that all projects support “defined provincial objectives through a clear planning process.” In addition, it requires performance management to support measures of progress at both the project and provincial level.

The budget table is available as an Excel spreadsheet and contains provision for KPI. These must be completed in the proposal and used for reporting. This process simplifies budget preparation and reporting, and assists reviewers. Performance indicators are listed in Table 3, but proponents are not limited to these indicators if more budget breakdowns are useful.

4. Submission of Applications

4.1 Instructions for Submission of Applications

- An application form and guidelines for completing it are included with this Call for Proposals.
- The submission deadline is **Friday, December 15, 2017 at 4:00 pm**. Completed proposal applications must be submitted electronically to TreeImprovement.Proposals@gov.bc.ca.
- Proposals must consist of completed templates available on the [Forest Improvement and Research Management Branch - OTIP website](#), including
 - 1) OTIP Application Form 2018-19 (Word), and
 - 2) OTIP Budget Template 2018-19 (Excel).
- All proposal documents (application form and budget form) must be submitted in their original Word/Excel formats. Proposals submitted as PDF documents will not be accepted. Paper copies will also not be accepted.
- Please submit one proposal per SPU. Multiple orchards may be included in the same proposal provided they are all in the same SPU.

4.2 Timeline from Proposal Submission to Contract

Review of proposals will occur in January 2018. Proponents will be informed of their recommended approved projects and funding levels in mid-March 2018, subject to Forest Genetics Council’s budget deliberations, Ministry Chief Forester approval and LBIS allocations to the provincial tree improvement program. Subject to these confirmations, contracts for approved projects will be prepared by the Ministry in April 2018.

Notwithstanding any other provision in this call for proposals, the contract contemplated by this RFP and the financial obligations of the Ministry pursuant to that contract are subject to the availability of funds in accordance with the Financial Administration Act. WorkSafe BC and other insurance coverage such as comprehensive general liability may be required.

For additional information contact the Ministry Representatives, Darrell Wood and/or Alana Phillips, telephone 250-356-1651 or email TreeImprovement.Proposals@gov.bc.ca.

5. Reporting Procedures

Reporting requirements are designed to meet this program’s need for accountability and information, while recognizing proponent need for efficiency.

5.1 Financial reporting and performance statistics

Financial reports and KPIs must be available for review, if requested, at quarterly intervals. These reports normally only require spending to date by project category (see Table 2) and the KPI achieved. A brief final report incorporating KPIs is required at year end for inclusion in the FGC Projects Report. Deviations from planned KPI achievements of plus or minus 20% should be accompanied with a brief explanation of why the project varied from the planned amount. Two brief interim financial updates are required for the periods ending June 30th and September 30th respectively.

5.2 Reporting for technical support projects

Technical support projects for which the final product is a report must prepare a comprehensive final report. For multi-year projects, an annual report on progress achieved is required at year end, with a final report at the end of the final project year. Reports must outline the objectives, material and methods used, key results, and a discussion of the results. Focus must be on the operational applications of the work investigated.

Significant deviations from the approved project plan, if any, must be explained. Two brief interim reports on progress are required for the periods ending June 30th and September 30th respectively, and a final report is required for the fiscal year ending March 31st.

6. Guidelines for Completing the Application and Budget Forms

6.1 Guidelines for Completing the Application Form (Word file)

Table 4 provides a line-by-line guideline for each field/question on the application form.

Note that there is no space to list a project number this year. Project numbers will be assigned to proposals as they are received by the OTIP Coordinators. Project numbers from previous years will not apply.

Applications are not limited to the space provided in the application form. Proponents are encouraged to use the space needed to explain activities, but to avoid providing information that is widely available and would already be known to informed reviewers.

Budgets must be prepared in the Excel budget spreadsheet entitled *OTIP Budget Table for 2018_19.xls*. This spreadsheet is available from the [Forest Improvement and Research Management Branch OTIP website](#).

Appendices A and B contain sample proposals for the Seed Production and Technical Support sub-programs. Please review these examples before preparing your proposals.

Table 4. Guidelines for Completing the OTIP Application Form (Word document)

Project Summary	
Name of Project Leader:	The person responsible for the project. All correspondence regarding the project will be directed to the project leader.

Legal name / contacts of organization:	Information for legal and communications purposes.
Financial officer:	Name of the person in your organization responsible for project accounting.
Project title:	Please give the project a succinct, descriptive title unique to the proposed project.
Outline of project:	Briefly describe the project and its goals. Use bullets if possible. One paragraph maximum.
Seed Planning Unit (species / seed zone / elevation band):	List the primary Seed Planning Unit at which this proposal is directed. Normally applications are directed at only one SPU; for Technical Support projects that cover more than one SPU, list all SPU on a separate page.
Annual SPU seedling need	The annual seedling needs are listed in species plans available at: http://www.fgcouncil.bc.ca/doc-04-speciesplans.html
Years of seed with GW > 75% of potential	Input information from Table 1 in the appropriate cell
Orchard #, GW, and # ramets	Information is available in species plans.
Orchard average age	Estimate the average age from planting for all ramets in the orchard
Average ramet size	Estimate the average height in meters for orchard ramets
Project duration	Indicate the full duration of the project.
Project year	If this is a multi-year project indicate the current year of the project. (i.e. year 3 of 5)
Total project cost	The total funding request for the 2018-19 fiscal year. Multi-year projects will be reviewed each year and will require a detailed budget to be drawn up for each year.
Anticipated future budget needs	Estimated funding requests for future project years.
Project Description	
Needs	Describe specific seed needs or tree improvement benefits to be achieved (e.g., increased production, genetic gain, and how this project will support FGC objectives set out in the FGC Strategic Plan for 2015-2020.
Objectives	State project objectives including production target, regeneration type (e.g., seedling), projected genetic gain, and target date for completion.
Procedure	Provide technical details for the project and indicate projected dates of completion for various activities. Items listed in the budget should be described here. List activities for orchards separately if more than one orchard is covered in the proposal. For Operational projects keep this brief but include all relevant details. A person who understands orchard management procedures but is not intimate with your site should be able to read this and understand the plan (and/or repeat it at another site if so desired). For Technical projects (350 level) greater detail is required. 1-2 pages maximum.
Location	List facilities and/or specific orchard(s) where project activities will take place.
Output and deliverables	State what will be delivered. i.e. target production number, regeneration type (seedling, cutting), projected genetic gain, projected target date for completion and/or availability of material for reforestation. Materials must be suitable for registration for use on Crown Lands.
Budget	Provide a complete list of all expected costs using the Excel spreadsheet provided. Include sub-contracts, employee costs, and equipment rental and material costs. Budget guidelines are provided in the next section.
Who will benefit from this work?	Tie benefits and outputs to specific clients where possible.
Project team/partners	List all key partners who will be involved in implementing the project. Information should include the person's name and organization. Technical support project teams must include orchard operator(s) who will use the results.
Signature block	Manager or person of authority within the organization who can authorize implementation. Provide name, title, signature and date.

6.2 Grouping orchards by SPU

Operational production applications are designed to cover all activities for a single seed planning unit within an operation (i.e. SPU 17 Pli BV low elevation orchards at a specific site). Proponents may include more than one orchard in an application, provided project details are described for each orchard separately.

Technical Support proposals that cover multiple SPU should contain one application with all pertinent information for reviewing and evaluating the proposal. List all the SPU to which it applies.

6.3 Guidelines for Completing the Budget Form (Excel file)

NOTE: It is the responsibility of the project leader to keep all pertinent financial records and receipts for a period of 7 years for possible audit purposes.

Project Category:

Use project category numbers in Table 3 (i.e. 324 for roguing), as shown in the OTIP budget spreadsheet.

Key Performance Indicators (KPI):

Use KPIs shown in Table 2 and in budget spreadsheets. If Key Performance Indicators are not included, the proposal will not be forwarded to the review committee. Additional KPI's may be used if it is helpful and logical to do so, and if so provide clear explanation of the KPI.

Number of KPI Planned:

Show the amount of work to be done using the appropriate KPI.

Salaries and benefits:

Salaries should conform to standards common for the activity type (i.e. seed orchard work). The review committee(s) may reduce salary requests if they are too high. Claim only actual, direct salaries (i.e. the amount actually paid to an employee, not charge-out rates). Salary rates must correspond to base rate only, and cannot include any bonus or pay-for-performance. Actual benefit costs of employees (e.g. employment insurance, Canada pension, medical, vacation pay to a maximum of three weeks per year, pro-rated yearly, etc.) will be considered eligible costs. Piece work payment is acceptable, but must be described.

If a person working on the project is a full-time employee of the organisation, the funding requested should be calculated by dividing actual annual salary by 230 days, multiplied by the number of days the person worked on the project. **Please state the rates at which employees are paid.**

If the project requires hiring someone on contract, funding can be based on an hourly, daily, weekly, monthly, or unit rate. In cases where the project team hires out a contractor and or a contractual employee, charge-out fees are eligible.

Applicants may apply for appropriate and reasonable costs for preparation of approved projects. This applies only where a consultant has been hired to prepare proposals or an in-house employee has been hired for the specific purpose of doing the project work. These costs should be listed in the *Other* category.

Equipment:

Only equipment that is directly related to performing the proposed project and costs less than \$1,000 is eligible for funding.

The acquisition of capital equipment is ineligible for funding under this program. Equipment needed may be leased. The value or depreciation costs of existing equipment or facilities may not be claimed. Similarly, proponents may not charge lease or rental fees for equipment owned by them that are used in projects.

All proposed expenditures in this category must be itemized separately.

Travel:

Only expenses for work travel that is directly related to technical aspects of an approved project are acceptable. Total travel charges should be itemized showing purpose, destination and costs. British Columbia provincial government rates will be considered maximal. Allowable travel expenses are based upon the Ministry of Finance’s travel policies and procedures, and rates specified for public service employees:

<http://www2.gov.bc.ca/gov/content/governments/services-for-government/bc-bid-resources/goods-and-services-catalogue/employee-travel>

a) Transportation

The most economical method of transportation should be utilized wherever possible.

Automobile	Mileage rates, all vehicles: \$0.53/km
Air	Economy class. Airfare receipts and tickets should be retained. Project personnel wishing to fly business or first class are responsible for any additional costs for upgrading.
Ferry	Receipts should be retained
Taxi	The use of taxis should be kept to a minimum. Retain receipts.

b) Accommodation and meals

Hotel	The maximum allowable nightly rates for accommodations (before taxes) must be reasonable and not normally exceed the posted government rates for business travel for a specified destination and date. Retain receipts. http://csa.pss.gov.bc.ca/businesstravel
Private Lodging	In situations where private lodging is arranged, the daily maximum stipend that can be claimed is \$30.
Meals	The allowable claims for meals are: <ul style="list-style-type: none">- Breakfast: \$12.00- Lunch: \$13.80- Dinner: \$23.25 Receipts <u>should be retained</u> for audit, but should not be submitted with expense reports.

Materials and supplies

Material and supplies used to carry out the proposed project may include raw materials, tools, and software. Expenditures in this category are eligible and must be itemized.

Other expenses

Include all contract costs and all other items. **List individual contracts.**

Administrative and other costs

Administrative costs for an approved project, to a maximum of five (5) per cent of total project costs are eligible. These are calculated automatically in the budget spreadsheet. The following guidelines and restrictions apply to administrative expenses:

Conferences	This program does not fund conference travel and related expenses unless specifically planned as part of the project's extension component.
Publications, reports and memberships	Subscriptions to scientific journals, books and other publications will not be considered, nor will membership fees to societies. However, costs incurred in preparing progress reports and for extension and publication of results (with acknowledgement of the Forest Genetics Council Operational Tree Improvement Program) may be included. Charges for journal reprints and large document reproduction are eligible project costs.
Personnel hiring	Costs for advertising, travel, or other expenses associated with hiring new personnel for projects are not eligible.
Entertainment	Costs for entertainment are not eligible.
Marketing	Costs for product marketing or commercialization are not eligible.
Patent	Costs for obtaining a patent are not eligible.
Goods and Services Tax (GST)	Only net GST costs not eligible for rebate may be claimed as a project expense.

6.4 Avoiding Difficulties

Remember that reviewers can only judge the application on the information provided. Evaluation will focus on impact and value. Review committees must evaluate many proposals, so please only include information that reviewers will need to evaluate the work. Reviewers understand orchard work and don't need to be told what is obvious. Presenting key information in bullet form is useful. The following types of information are helpful:

- Key performance indicator by project category using only listed indicators
- How the project supports FGC objectives
- How the final product will be used.
- Specific activities.
- Where non-standard approaches are proposed, please explain.
- If funding was provided for the same activity in a previous year, please provide information regarding success level.
- For category 350 projects (technical support), please provide adequate detail to allow review committees to understand project objectives, application, and methods.

Operational Tree Improvement Program

6.5 Sample OTIP Application Form for 2018/2019 - Operational Projects

Name of Applicant/Project Leader

Legal Name of Organization:

Mailing Address:

Telephone:

Fax:

E-Mail Address:

Financial Officer:

Project Title:

Summary of Project (use attached outline)

Seed Planning Unit			Annual SPU Seedling Need:	Years seed GW > 75% of potential	Orchard information (list all orchards considered in this application)				
Species	Seed Zone	Elevation band			Orch #	Avg. ramet age	GW	Avg. ramet ht. (m)	# ramets in orch.
Project Duration:			Project year:						
Total Project Cost requested for FY 2018/19:									
Anticipated future budget needs:									
FY 2019/20: \$			FY 2020/21: \$			FY 2021/22: \$			

Project Description

Needs:

Describe specific seed needs or tree improvement benefits to be achieved (e.g., increased production, genetic gain) and how this project will support Forest Genetics Council objectives set out in the FGC Strategic Plan for 2015-2020.

Objectives:

State project objectives including production target, regeneration type (e.g., seedling), projected genetic gain, and target date for completion.

Procedure:

Provide technical details of the project, including methodology and projected dates of completion for various activities. Items listed in the budget should be described here. List activities for orchards separately if more than one orchard is covered in the proposal.

Keep this section brief (2 pages max) but include all relevant details. A person who understands orchard management procedures but is not intimate with your site should be able to read this and understand the plan (and/or repeat it at another site if so desired).

Location:

List facilities and/or specific orchard(s) where project activities will take place.

Output and Deliverables:

State what will be delivered, i.e. target production number, regeneration type (seedling, cutting), projected genetic gain, projected target date for completion and/or availability of material for reforestation. Materials must be suitable for registration for use on Crown Lands.

Who will benefit from this work?

Tie benefits and outputs to specific clients where possible.

Project Team:

List all key partners who will be involved in implementing the project, and their role, including any Orchard Management Sponsor. Information should include the person's name and organization.

Budget Details:

Provide a complete list of all expected costs using the Excel spreadsheet provided. Include sub-contracts, employee costs, and equipment rental and material costs. Budget guidelines are provided in the Call for Proposals.

Proponent's Signature Block:

Manager or person of authority within the organization who can authorize implementation. Provide name, title, signature and date.

Name: _____	Title: _____
Signature: _____	Date: _____

Operational Tree Improvement Program

6.6 Sample OTIP Budget Spreadsheet for 2017-19 - Operational Projects

This is available in an Excel file format. A similar spreadsheet is available for technical projects. Non-green portions of the spreadsheet will automatically fill in when values are entered in green cells.

OTIP budget input spreadsheet for OPERATIONAL PROJECTS (Page 1/2)

Project title		SPU #	Species	Zone	Elev.								
Project leader name													
Instructions: - Enter information only in green cells - Complete only needed rows - Provide a breakdown of activities in each project category if it will help the review committee better understand your project (see note in yellow box to the right)													
Information: - Totals and \$/KPI calculate automatically. You can't enter data in protected non-coloured cells. - If more information is needed, put it in the comments section at the bottom and refer to the category name and activity description in the budget table. - If you need more lines for a category, enter the category # and name in any blank line													
Project category		Activity description (break down as needed)	Performance measure description (KPI), add more KPI if needed	Cost Qtr.	Costs (\$)								
#	Name				# KPI	Salary	Equip.	Travel	Materials & supplies	Other	Admin.	Total	\$ per KPI
321	Grafting		# of ramets to be grafted										
322	Holding grafts		# of grafts to be kept in holding beds										
323	Ramet replacement		# of ramets to be replaced in the orch.										
324	Roguing		# of ramets to be removed from the orch.										
325	SMP	Ramets treated	# of ramets to be treated with SMP										
		Pollen collection	Liters of pollen collected										
326	Cone induction	Ramets treated with hormones	# of ramets to be induced										
		Girdling	# ramets to be girdled										
331	Cutting donor stock management		# of cutting donors to be managed										
341	Insect control		# of ramets to be treated										
		For multiple sprays, KPI = # ramets x # sprays											
342	Non-insect pest / disease control		# of ramets to receive pest control										
343	Monitoring		# of ramets to be monitored										
				Total costs		0.00	0.00	0.00	0.00	0.00	0.00	0.00	
											TOTAL PROJECT COST	\$	0.00

Appendix A:

Sample Application for an Operational Project

Sample Application for an Orchard Operations Project

Name of Applicant/Project Leader

Z. Smith, Seed Orchard Manager

Legal Name of Organization:

United Seed Orchards

Mailing Address:

3322 Red-out Road
Vernon BC V1B 2C8

Telephone: 250-266-5666

Fax: 250-566-5667

E-Mail Address: zsmith@united.bc.ca

Financial Officer: A. Persona

Project Title:

Improving lodgepole pine seed quality and quantity in Orchards 997 and 999

Outline of Project (use attached outline)

Boosting seed production and gain in Red-out Orchard 997 by:

- Improving orchard composition through grafting and transplanting.
- Improving orchard seed quantity and quality through SMP.
- Improving orchard productivity through pest management and other management activities.

Seed Planning Unit			Annual SPU seedling need (mm):	Years seed GW > 75% of potential	Orchard information (list all orchards considered in this application)				
					Orch #	Avg. ramet age	GW	Avg. ramet ht. (m)	# ramets in orch.
Species Pli	Seed Zone BV	Elevation band 700-1400m	24.6	0.3	997	12	14	4	2831
					999	4	19	1.5	3215
Project Duration: 1 year			Project year: 2018/19						
Total Project Cost requested for FY 2018/19: \$10,592.40									
Anticipated future budget needs:									
FY 2019/20: \$			FY 2020/21: \$			FY 2021/22: \$			

Project Details

Needs

The species plan for SPU 17 shows that high-gain seed supply is not meeting estimated seedling needs at present. To meet FGC objectives for select seed use and genetic gain, class A seed from this SPU is needed. Proposed activities are required to meet the Business Plan needs and to improve genetic gain.

Objectives

Orchard 997 - Produce a seed crop of 2.3 million plantables with a GWg of 14 and improve orchard parental composition to boost average GWg to 22 by 20XX.

Orchard 999 - Supplement pollen and produce a seed crop of 0.2 million plantables with a GWg of 19 for the 2019 crop.

Procedure

Grafting:

Orchard 997: higher gain ramets for upgrading orchard genetic quality (to be planted in 2018) will be grafted on site using scion from selected parent trees recommended by the Ministry Pli breeder. Based on the latest progeny test measurements (12 year data) and data analysis (completed July 2017), and in consultation with the lodgepole pine tree breeder, we will continue to improve the clonal composition of this orchard. We will graft high breeding value ramets and transplant high breeding value ramets made in 2017. All grafting and transplanting is to replace ramets

Roguing:

- **Orchard 997:** Roguing is to remove 200 lower-gain ramets (below BV10) for replacement with new higher-gain ramets.

Planting grafts:

- **Orchard 997:** Planting to orchard positions using 200 higher-gain ramets (above BV18) grafted in previous years. These will replace older low-gain ramets currently in the orchard

Supplemental mass pollination:

Orchard 999: SMP will be carried out on clones with either early or late reproductive phenology. Pollen will come from previous and current-year collections made from the higher breeding value parents in the orchard. Previous years' pollen will be tested for viability; only viable pollen will be deployed.

Pollen will be collected from high breeding value Bulkley Valley low SPU clones for use in future years. Collection will be from the Research Branch breed arboretum.

If there is a manageable cone crop in the orchard, high breeding value stored pollen will be applied, increasing seedlot genetic worth and seed quantity for the 2019 crop. Natural pollen cloud density will be monitored daily so that SMP treatments can be timed for maximum effect.

This SMP work fulfils recommendations of the CTAC subcommittee regarding funding of SMP: orchard average BV = 7 and our stored pollen mix BV = 19

Pest management and survey:

- **Orchard 999:** pitch moth will be hand removed.

- **Orchards 997 and 999:** Leptoglossus will be treated with 1 spray of Matador, should surveys indicate Lepto populations are high enough to warrant spraying.

Location

United Seed Orchards, Red-out Road Site.

Output and Deliverables

Orchard 997:

- Seed crop of GW14 capable of producing 2.3 million plantables
- Roguing and replacement of 98 ramets with higher-gain parents
- Grafting 173 ramets of higher gain parents
- Increased average breeding value of from 11 to 16% in current year, and to 22% by 2022.

Orchard 999:

- Seed crop of GW19 capable of producing 0.2 million plantables
- Maintaining orchard health through pitch moth removal

Budget

See the attached budget form. Note that the project cost includes amounts that are dependent on the presence of certain pest levels and/or a collectable crop. In the absence of pest problems and/or a collectable crop, the associated amounts will be returned.

Who will benefit from this work?

Lodgepole pine seed users in the Bulkley Valley SPU and areas affected by Climate based seed transfer projections

Forest Genetics Council by assisting to meet their goals in SPU17

Project Team

Employees of United Seed Orchards regular and seasonal staff

Proponent’s Signature Block:

Name: <u> Z. Smith </u>	Title: <u> Manager, United Interior Seed </u>
Signature: _____	Date: _____

Appendix B:

Sample Application for a Technical Project

Sample Application for a Technical Project

Name of Applicant/Project Leader
Marilyn Wilson

Legal Name of Organization:
Wilson Technical Support

Mailing Address:
Marilyn Wilson
5900 Dumont Drive
Duncan, BC V9L 1L7

Telephone: 250-748-7530
Fax: 250-748-5667
E-Mail Address: Mwilson@shock.ca
Financial Officer: N.E. Persona

Name of Orchard Sponsor:
Mitch McDeere, Seed Orchard Manager, FIRM

Is this a SelectSeed orchard? (yes or no): no

Project Title:
Application of Douglas-fir (Fdc) seed production across climatically contrasting sites

Outline of Project: Project was initiated last year (2016/17)

Results from previous studies provide information on environmental conditions necessary for viable pollen and seed production. It is now appropriate to apply this knowledge into practice on a pilot scale operational level.

The project will be carried out at six climatically variable field sites. Selection of the project sites will be based on operational accessibility while targeting climatic conditions conducive to seed production.

The information from this project will assist in the decision if the establishment of coastal Douglas-fir seed orchards at favourable locations at low elevation is a viable option to access genetic gain from the breeding program.

Seed Planning Unit			Annual SPU seedling need (mm):	Years seed GW > 75% of potential	Orchard information (list all orchards considered in this application)				
Species Fdc	Seed Zone M	Elevation band 1100 - 2000m			Orch #	Avg. ramet age	GW	Avg. ramet ht. (m)	# ramets in orch.
Project Duration: 3 years			Project year: Year 2						
Total Project Cost requested for FY 2018/19: \$15,000 Overall Project cost: \$45,000									
Anticipated future budget needs:									
FY 2019/20: \$ 15,000			FY 2020/21: \$0			FY 2021/22: \$0			

Project Description

Needs

Seed orchards were established at low elevations with the idea that the influence of warmer climate will promote earlier and increased quality cone production.

To the contrary, seed orchards produced lower quantities of viable seed than wild stands.

Orchard establishment at higher elevation micro sites may be a viable and economically feasible option for seed production.

Information obtained from this project will assist in the decision if the establishment of Douglas-fir seed orchards at favourable locations at low elevation is a viable option to access genetic gain from the breeding program.

Objectives

To determine the effect of climatic site differences on Fdi operational seed production.

Procedures

Progress to date:

The project was initiated at six climatically variable field sites. The six sites differ from each other in mean annual temperature, mean annual precipitation, elevation, and distance from the fog cooling effect of the ocean. Each site was equipped with two electronic thermometers to collect temperature data. There are two replications per site. Each replication was thinned to approximately 100 trees. There are a total of 200 test trees per site and 1,200 trees in total for the six sites. Larger trees were topped. These two treatments should help to mimic actual seed orchard conditions and enable viable seed.

Activities 2017/18:

Survey and assess cone production and production efficiency for each site. Cones on selected trees will be protected with mesh bags. Cones will be collected from 10 clones on each of the six test sites. Bulk samples by site will be assessed for the total number of seed and the number of filled seed per cone. In addition, the number of filled seed per cone, seed germination capacity, and seed viability will be assessed according to ISTA protocols.

Location

Field locations in Jordan River, Mount Washington, Zeballos

Output and Deliverables

- Progress Report on surveys and assessments of cone production and production efficiency for each trial location

Who will benefit from this work?

- Coastal Douglas-fir seed orchards
- Support for Forest Genetics Council objectives

Project Team

Marilyn Wilson
5900 Dumont Drive
Duncan, BC V9L 1L7
Telephone: (250) 748-7530

Mitch McDeere, Seed Orchard Manager
Vancouver Island Seed Orchard
Forest Improvement & Research Management Branch
BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development
Tel. (250) 749-6811

Proponent’s Signature Block:

Manager or person of authority within the organization who can authorize implementation. Provide name, title, signature and date.

Name: <u> Marilyn Wilson </u>	Title: <u> Lead Researcher </u>
Signature: _____	Date: _____

Sponsor’s Signature Block:

Orchard Manager who can attest to the value of the proposed project. Provide name, title, signature and date.

Name: <u> Mitch McDeere </u>	Title: <u> Orchard Manager </u>
Signature: _____	Date: _____

Operational Tree Improvement Program

OTIP budget spreadsheet for TECHNICAL SUPPORT projects (Page 1/1)

Project title	Pilot-scale operational application of Coastal Douglas fir production across climatically contrasting sites						
Project leader	M. Wilson	SPU #	31	Species	M	Elev.	900-1200
Project Sponsor:	M. McDeere	Fdc	Zone				

Instructions:

- Enter information only in green cells
- Not all rows need to be completed
- Provide a breakdown of activities in each project category if it will help the review committee better understand your project

Information:

- Totals and \$/KPI calculate automatically. You can't enter data in protected non-coloured cells.
- If more information is needed, put it in the comments section at the bottom and refer to the category name and activity description in the budget table.

Project category		Costs (\$) - Provide details of non-salary costs in Comments Section										
Category #	Name	Activity description (break down as needed)	Performance measure description (KPI) - add more KPI if needed	Cost Qtr.	# KPI	Salary	Equip.	Travel	Materials & supplies	Other	Admin.	Total
350	Technical support	Protect cones with mesh bags	1200 trees	1	1200	2,000.00					100.00	2,100.00
		Collect cones, extract seed, assess # seeds per cone.	1200 trees	3	1200	4,285.75					214.29	4,500.04
		Germinate seed and assess number of full seed per cone.	1200 trees	3	1200	1,000.00					50.00	1,050.00
		Surveys and assessments of cone production and production efficiency	Progress report	4	1					7,000.00	350.00	7,350.00
		Total costs				7,285.75	0.00	0.00	0.00	7,000.00	714.29	15,000.04
											TOTAL PROJECT COST	\$ 15,000

Loaded hourly rates

Worker type	Rate/hr
Labourer	\$12.00
Professional	\$45.00

Cost by Quarter

Q1 (April - June)	\$2,100.00
Q2 (July - Sept.)	
Q3 (Oct. - Dec.)	\$5,550.04
Q4 (Jan. - March)	\$7,350.00

Comments section - provide details for non-salary costs (Equipment, Travel, Supplies, etc)

Category	Activity description	Comment
	Progress Report	Progress Report (Q4) on surveys and assessments of cone production and production efficiency for each trial location