

Canadian Ornamental Horticulture Cluster – 2018-2023

Full Research Proposal

NOTE: Please complete the full proposal following all instructions, as well as the attached budget file.

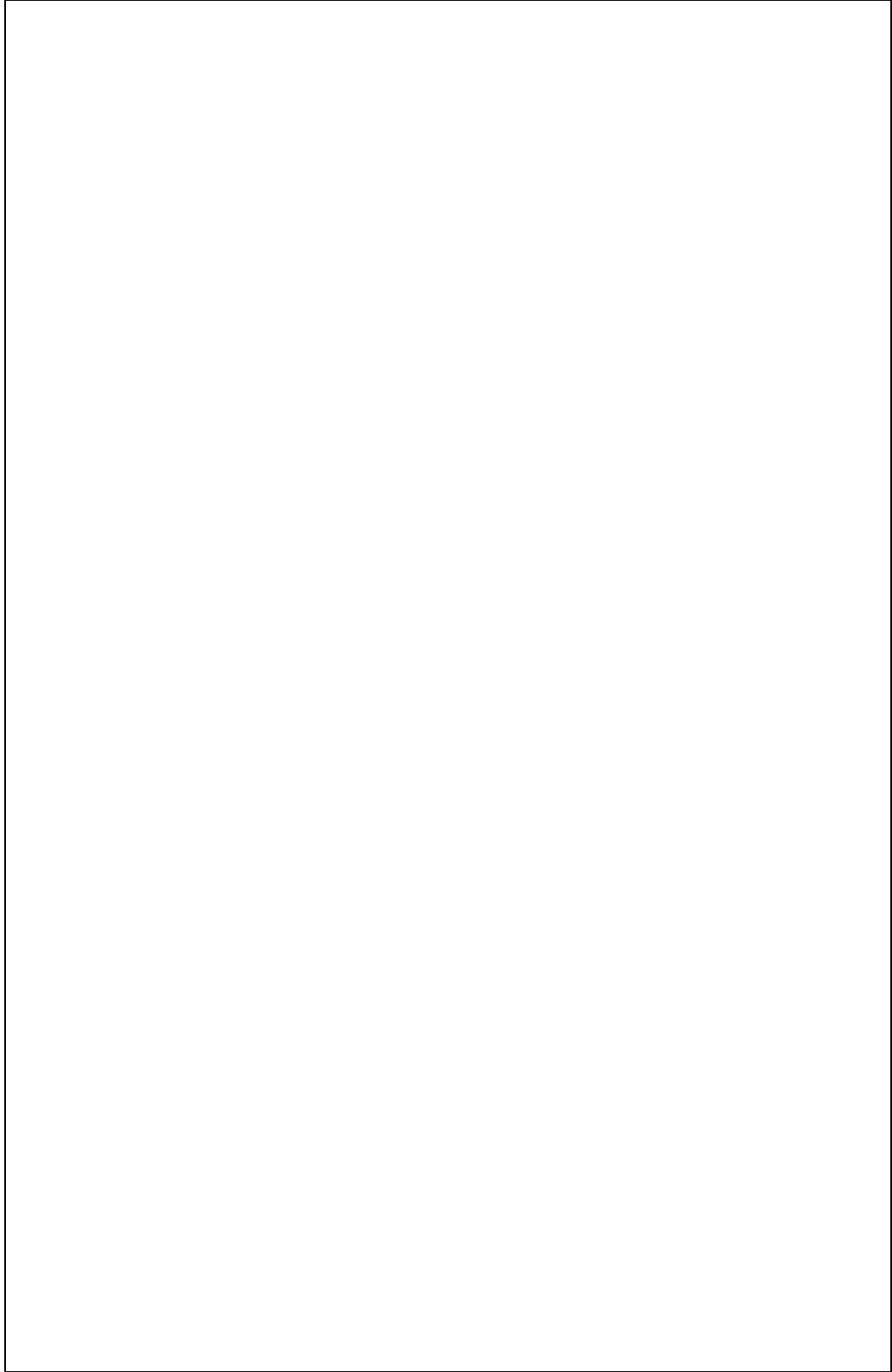
PART 1: APPLICANT INFORMATION			
LEAD APPLICANT (Principal Investigator)		COLLABORATOR 1 (if applicable)	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
*Role in Project:		*Role in Project:	
COLLABORATOR 2 (if applicable)		COLLABORATOR 3 (if applicable)**	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
*Role in Project:		*Role in Project:	
*Role in project examples include: data analysis, statistical support, communication lead, etc.			
**If more than three collaborators, please include the remaining researchers in Part 14			

PART 2: TITLE and SECTOR AREA OF FOCUS	
Title (propose a concise but informative title)	
What priority theme(s) does this project address Choose one only. Refer to the Guideline Document, Appendix A, for more details. Check all that apply.	
<input type="checkbox"/>	Mitigating the impacts of climate change and improving life quality through living green infrastructures
<input type="checkbox"/>	Adapting the ornamental sector to the new realities introduced by climate change
<input type="checkbox"/>	Enhancing environmental sustainability through resource optimization
<input type="checkbox"/>	Driving productivity gains to increase competitiveness
<input type="checkbox"/>	Responding to market needs and advancing opportunities to strengthen public trust

PART 3: RESEARCHER BIOGRAPHIES

- Provide a brief biography for the principal investigator(s) AND each collaborator involved in the project (*½ page per biography*), outlining expertise and relevant experience *related to the proposed project*

NOTE: The biography should *NOT* be a CV of the PI and collaborators.

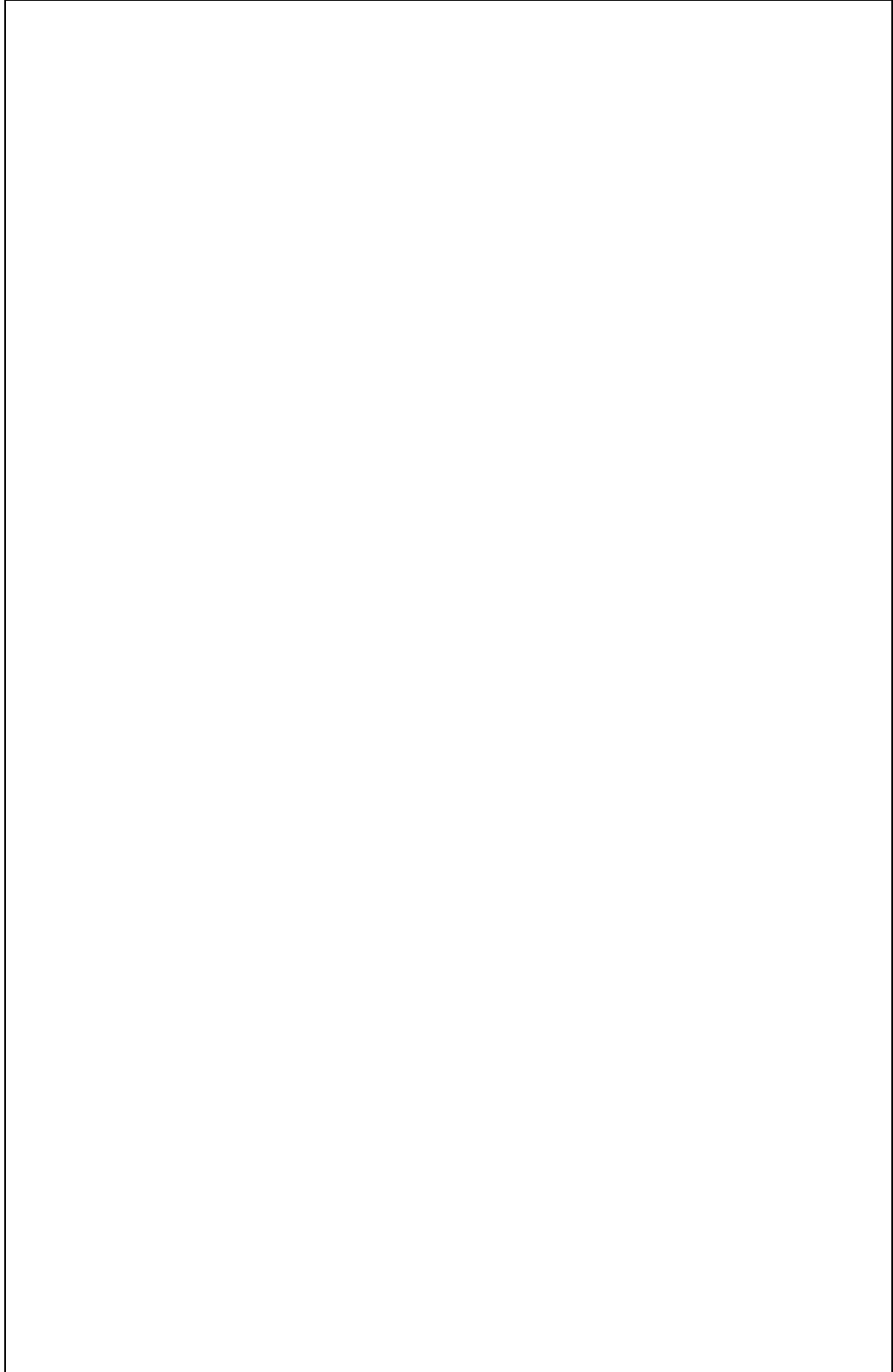


PART 4: EXECUTIVE SUMMARY OF PROJECT (1 page maximum)

- Provide a brief background for the project
- Explain how the project addresses key AAFC priorities listed in The Calgary Statement (see accompanying Guidelines Document)
- Outline (in point form) the project objective(s) and applicable hypotheses
- State the outcomes and explain how they will be achieved and completed by the end of the project
- Clearly articulate how project results will benefit the ornamentals sector and how those benefits could be measured

PART 5: PROJECT CONTEXT (2 pages maximum)

- Provide relevant background information for *each outcome* listed in Part 4
- Indicate the research priority(ies) being addressed by *each outcome* (please refer to the COHA *Research Priorities* summary)
- Describe the research gap(s) being addressed and how *each outcome* will address the research gap(s)
- Indicate how the research is original
- Include relevant references following the format: Primary Author (et al.), Article Title, Journal Name, Year of Publication, Volume, Issue, Page Numbers



PART 6A: LINKAGES TO PAST & ONGOING PROJECTS (*½ page maximum*)

- Identify (in point form) the objectives and outputs of any precursor project(s) and how the proposed research builds on those objectives and outputs
- Explain (in point form) the incremental value of the proposed research relative to past and ongoing projects
- Clearly note how the proposed project differs from, and advances previous work whether undertaken by the same researchers proposed for this project or similar work going on elsewhere in the world

NOTE: Complete this section only if your project is a continuation of previously funded work

PART 6B: OUTLOOKS FOR FUTURE PROJECTS (½ page maximum)

- **Identify (in point form) the long-term future research outlook for next steps of the project following the successful completion of all proposed objectives**

NOTE: ALL researchers must complete Part 6B, regardless of past & ongoing project(s).

PART 6C: Other funding programs (½ page maximum)

- **If there is funding from other programs for this project (pending or received) outline the funding source and the steps you will take to segregate the expenses claimed under each program.**
- **How do the activities being funded by one or more additional programs relate to the work in your proposal to COHA?**

PART 7: DETAILED EXPERIMENTAL APPROACH

No page limit. Provide concise, yet specific detail necessary for a peer reviewer to fully assess the quality of the science and evaluate the experimental approach

- **Outline (in concise point form, by objective and year) the approach that will be taken to achieve the deliverables noted in Part 8**
- **Include measurable targets by year, representing incremental research progress, or annual milestones for each objective outlined in Part 4**
- **Include a detailed experimental design and methodology that will be used to achieve deliverables for each research objective described in Part 4**
- **Clearly indicate the role of the applicant and collaborators in each objective**

Note: for the purposes of this proposal a year is from April 1 to March 31

EXAMPLE for reference

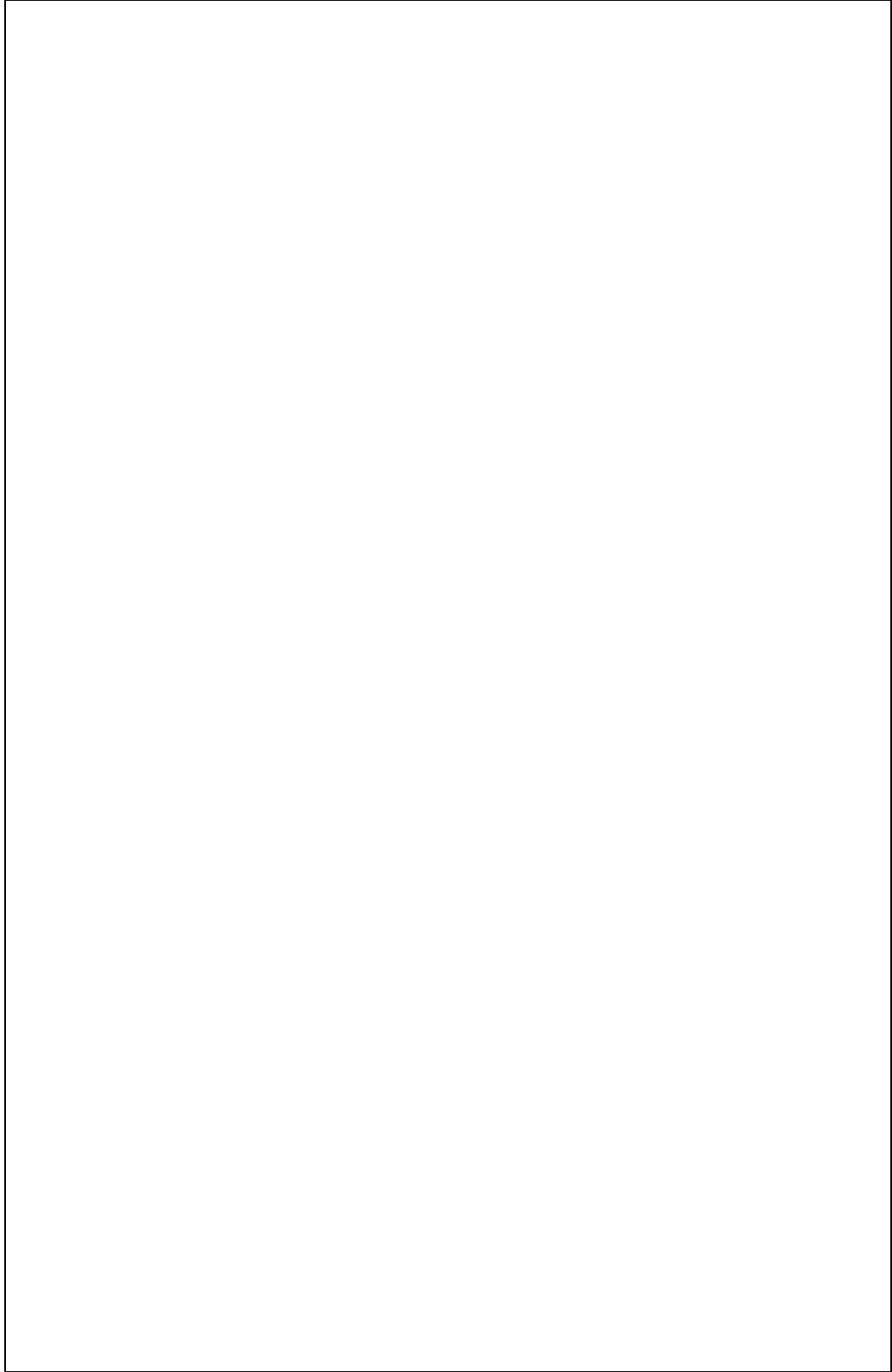
Objective 1: Breeding for X, Y, Z characteristics

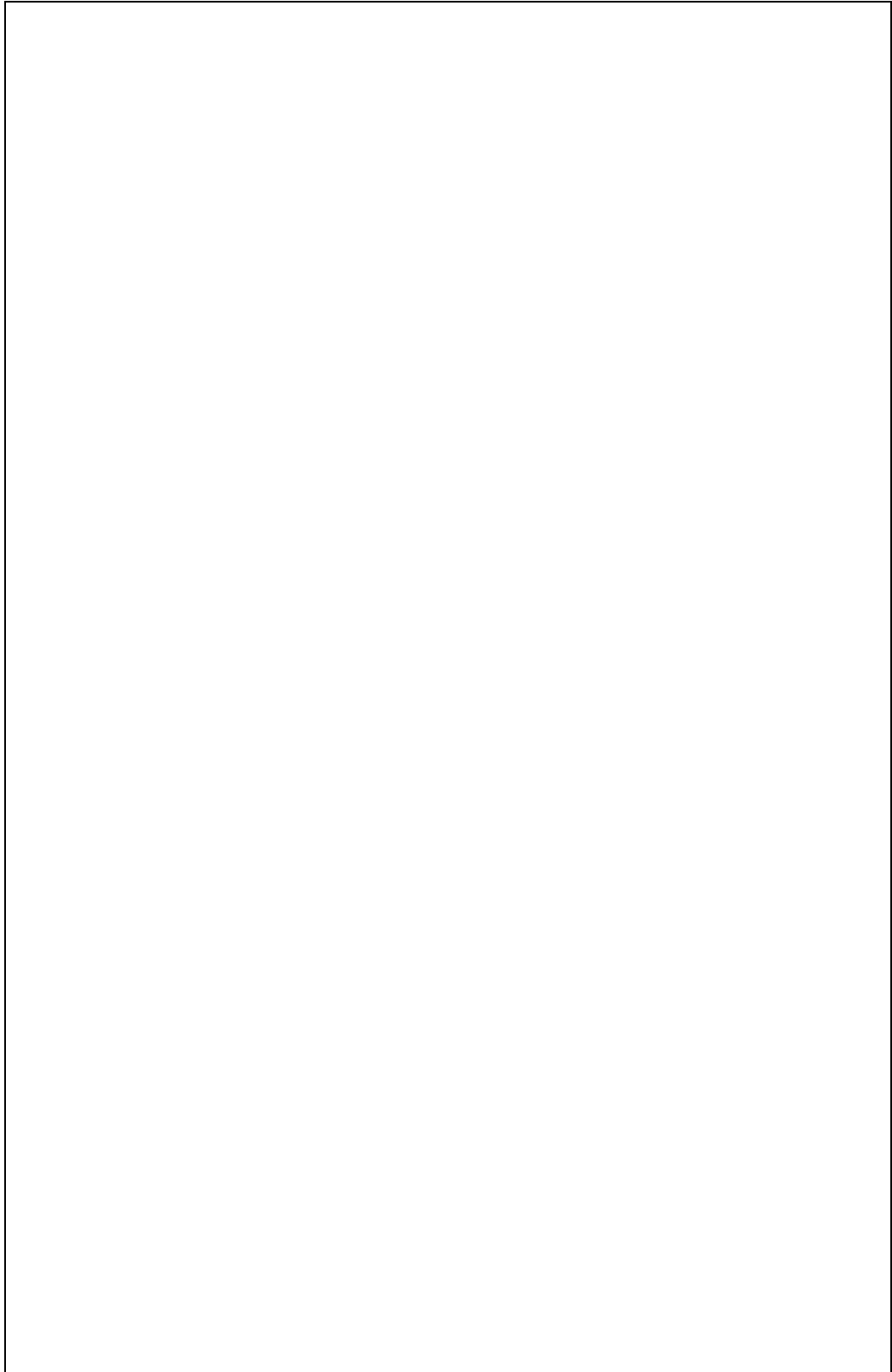
Year 1 (April 1, 2018- March 31, 2019)

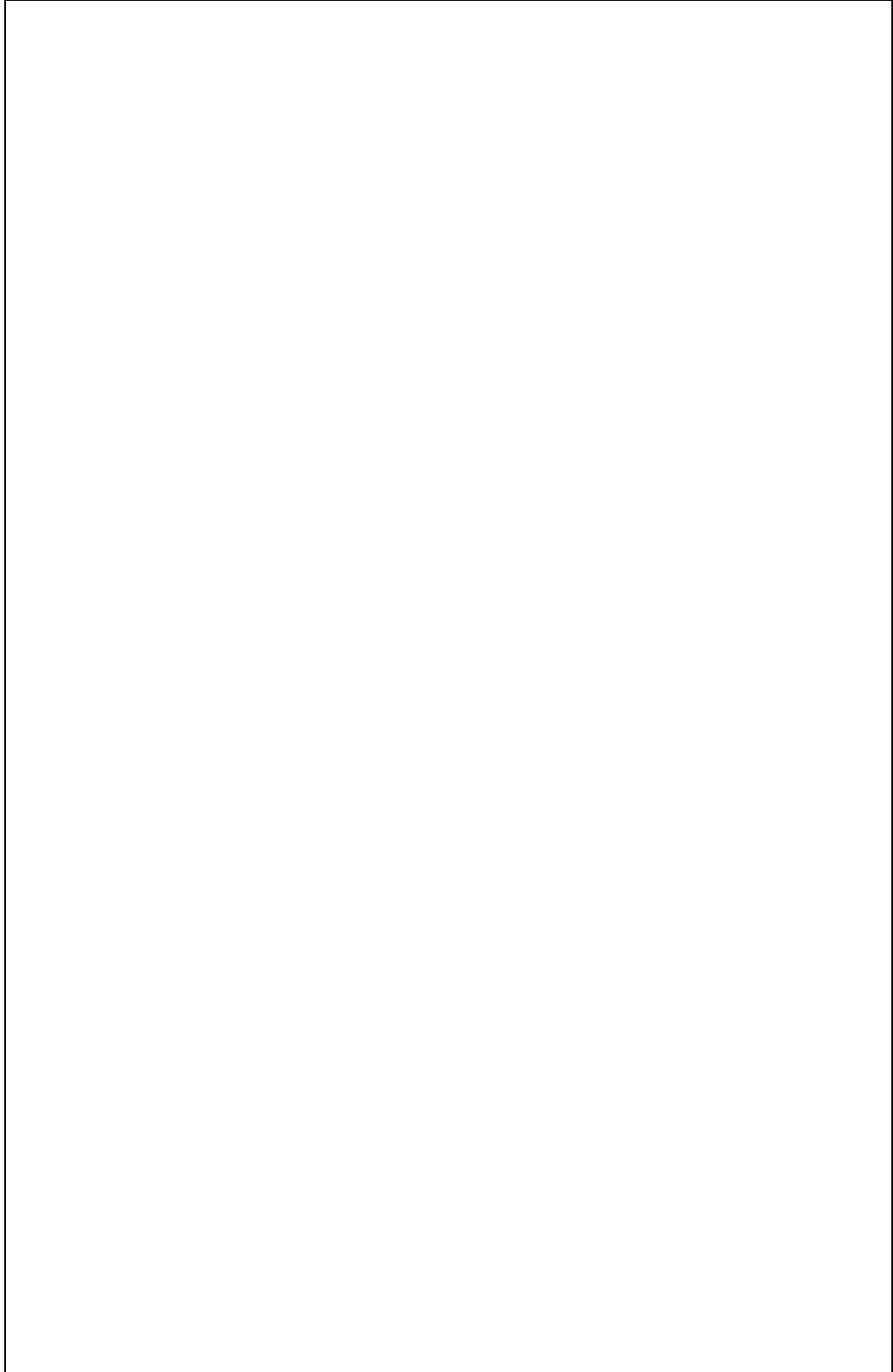
- X # of crosses made targeting germplasm with Y characteristics (Professor X)
- X # of seeds will germinated and tested in Y # of plots at Z # of locations ranging across AA geographic areas (Collaborators 1, 2, 3)
- X # of seedlings will be selected to carry forward based on Y traits (Professor X)
- Use of greenhouse/growth chamber for winter for testing of X # of seedlings for Y traits (Collaborator 4)

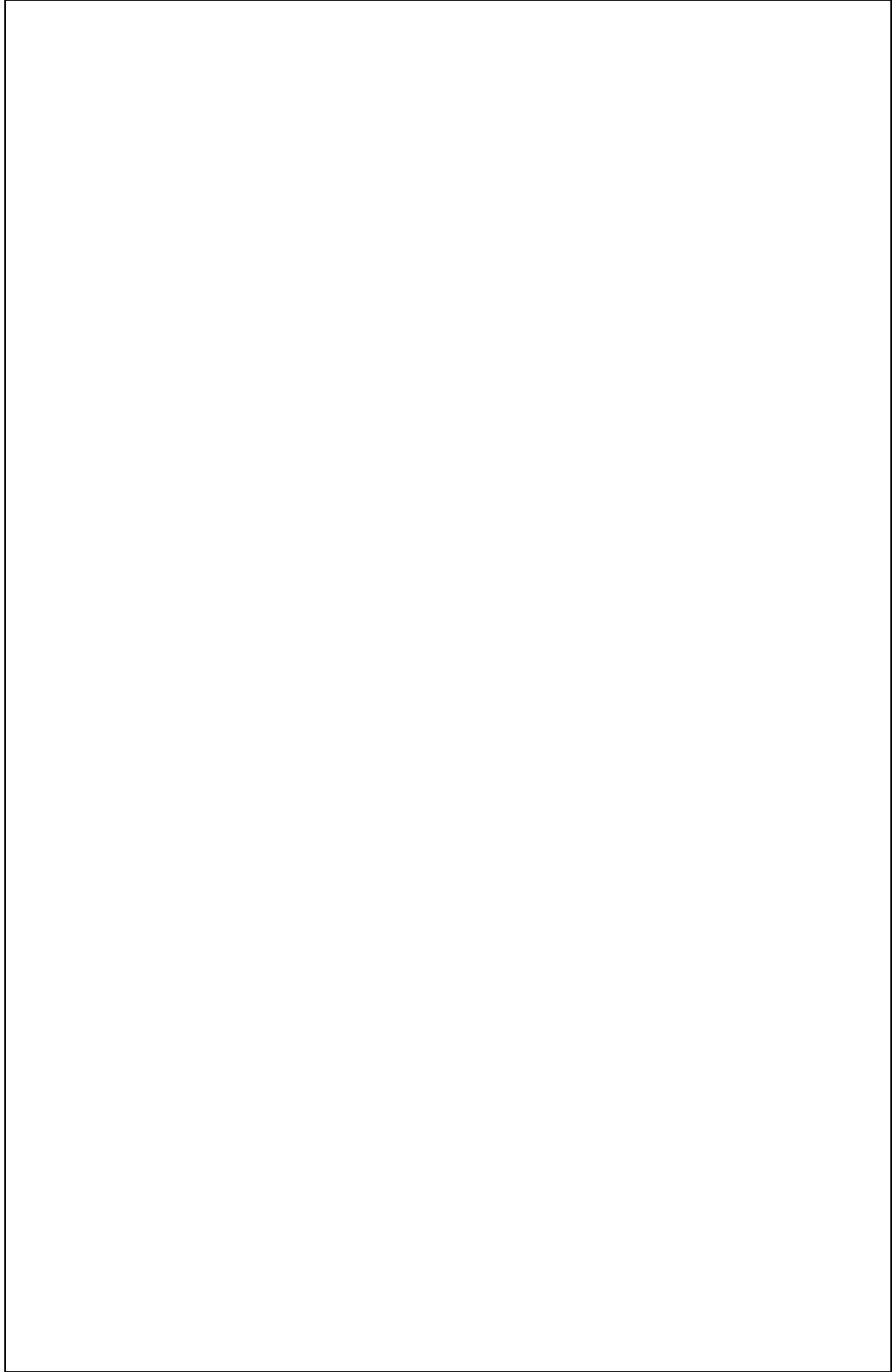
Year 2 (2019-2020)

- etc...









PART 8A: INTERIM DELIVERABLES (1 page maximum)

- **List short-term (incremental) research targets / annual milestones, by year, for *each objective* outlined in Part 4**
- **Deliverables must be clear for peer reviewers to assess the quality of science**
- **Every deliverable must be tied to a knowledge transfer action (Part 9)**
- **Ensure short-term research targets follow **SMART** principles: Deliverables should be Specific, Measurable, Achievable, Relevant, and Time-based**

EXAMPLE for reference

Objective 1: Breeding for X, Y, Z characteristics

Year 1 (2018-2019)

- Convene one annual in-person meeting of breeder and all collaborators involved in Objective 1 in January 2019 to discuss outlook for Year 2 (2019-2020)
- Approximately __ number of crosses will be made targeting germplasm with X, Y, or Z characteristics in 2018-2019
- Approximately __ number of seedlings will be tested in __ number of plots at __ locations ranging across X geographic areas (PLEASE NOTE: this information can be key to show the relevance of the work to widespread areas of Canada – especially be intentional to note any east/west exchange of materials, plants for testing)
- Selection of X number of lines to carry forward to 2019-2020 based on X,Y,Z traits

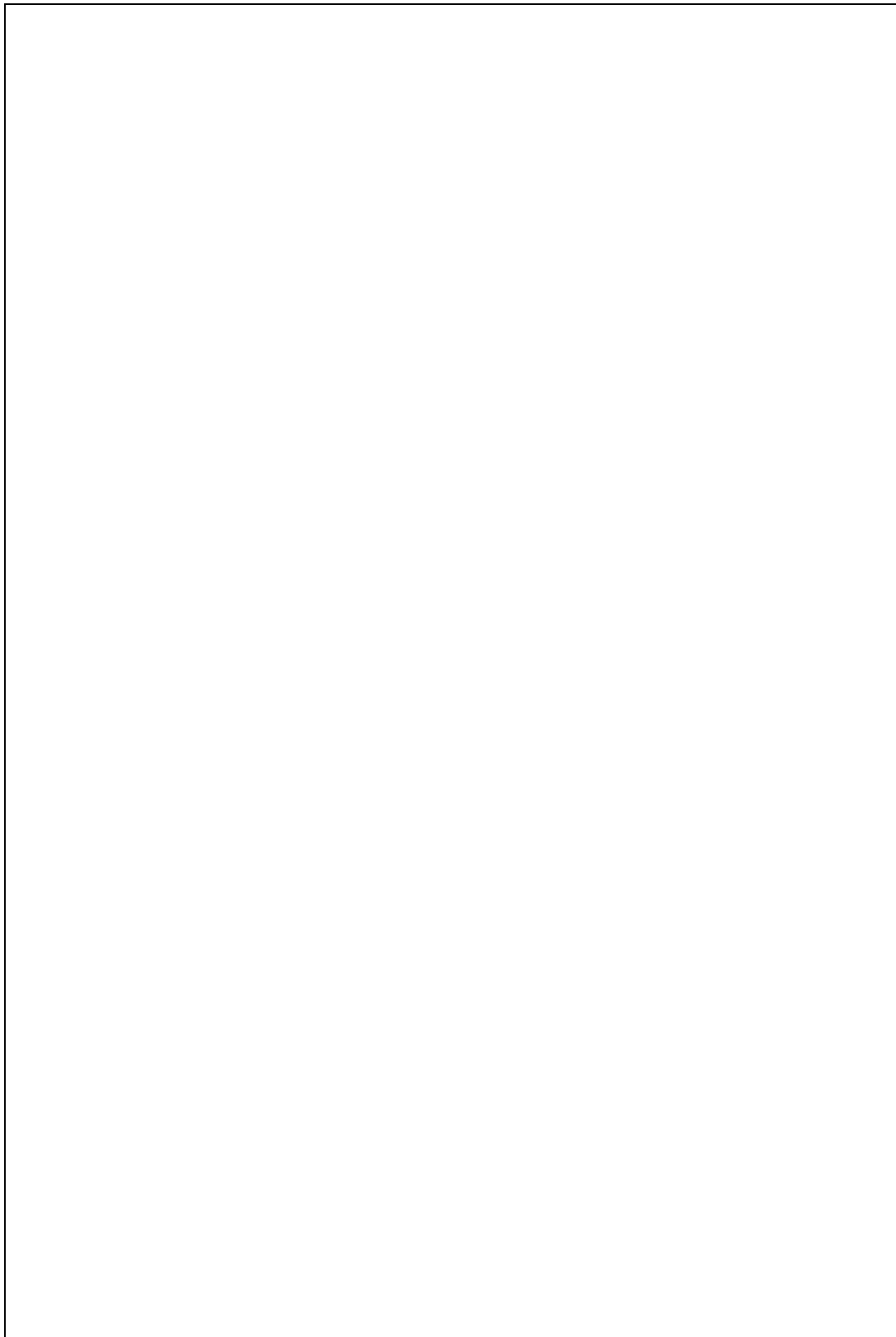
PART 8B: FINAL OUTPUTS / END-POINT DELIVERABLES (1 page maximum)

- List end-point/final outputs for *each objective* outlined in Part 4, and which year they will be accomplished within
- Deliverables must be clear for peer reviewers to assess the quality of science
- Every deliverable must be tied to a knowledge transfer action (Part 9)
- Ensure end-point research targets follow **SMART** principles: Deliverables should be **Specific, Measurable, Achievable, Relevant, and Time-based**

EXAMPLE for reference

Objective 1: Breeding for X, Y, Z characteristics

By 2023 develop ## cultivars with X% more blackspot resistance than (specify a check that is commonly marketed in Canada) with similar scent and flower longevity; shrub stature with good standability. Winter hardiness (Y) to Zone 5a, which is one zone, more winter hardy than the check. Leaf colour (Z) will be glossy, dark green, 20% darker than the check.



PART 9: KNOWLEDGE TRANSFER PLAN (1 page maximum)

- Each deliverable listed in Part 8 must be tied to an appropriate and effective knowledge transfer strategy
- Identify your target audience(s) and indicate how you plan to engage your target audience(s) at various points of the research project, for each deliverable outlined in Part 8B
- Knowledge transfer deliverables must follow **SMART** principles: Specific, Measurable, Achievable, Relevant, and Time-based
- Project should have the goal of widespread use of final results in Canada

PART 10: COMMERCIALIZATION PLAN, IF APPLICABLE (1 page maximum)

- **Note: Commercialization plan is *different* from knowledge transfer plan**
- **Commercialization plan is relevant where there is licencing and/or ownership involved or an expected opportunity to take the results to market for commercial gain**
- **If relevant, describe a path and estimated timeline for commercial uptake of research outcomes**

PART 11: PROJECT DURATION & BUDGET					
PROJECT DURATION [must fit within the expected APF timeline of 5 years or less (Apr 1, 2018 - Dec 31, 2022)]					
Start date:		End date:		Duration (yrs):	
BUDGET (Please complete the Excel file titled "Detailed Proposal Budget" as well)					
<i>Year 1</i>	Apr 1, 2018 - Mar 31 2019:				
<i>Year 2</i>	Apr 1, 2019 - Mar 31 2020:				
<i>Year 3</i>	Apr 1, 2020 - Mar 31 2021:				
<i>Year 4</i>	Apr 1, 2021 - Mar 31 2022:				
<i>Year 5</i>	Apr 1, 2022 - Dec 31 2022:				
TOTAL BUDGET EXPENDITURES:					
ADDITIONAL BUDGET COMPONENT					
Equipment Costs					
<ul style="list-style-type: none"> • Provide rationale for any capital assets (>\$5,000) • Every major equipment item should appear as a separate line in the budget 					
Request for additional industry cash funding from COHA (1 page maximum)					
<ul style="list-style-type: none"> • At its discretion, COHA may approve proposals where funding requests are higher than 66.66% of eligible expenses. Any additional industry cash provided by COHA will be determined based on criteria as specified in the Guideline Document. <ul style="list-style-type: none"> ○ The project has broad industry benefit (across Canada and across floriculture, nursery and sod sectors) ○ The project has a high probability of achieving commercial success and includes provisions to share IP rights with COHA ○ The project is novel, innovative and proposes a completely new approach (i.e. the research is original and unique, proposes a solution that has not been explored to date, and this solution is a major shift from past research projects) ○ The project has high potential to develop HQP that will remain in the Canadian ornamentals sector following completion of the project. 					

○

- **If your proposal is seeking more than 66.66% of total eligible costs explain how this project meets these criteria.**

(COHA reserves the right to allocate its industry funds at its own discretion. Completing this section does not guarantee that additional industry funds will be provided to the project.)

PART 12: KEY DEPENDENCIES / RISK MITIGATION STRATEGY (1 page maximum)

- **Explain (in point form) any key dependencies without which it would not be possible to proceed**
- **Outline (in point form) any risks which could impede success, including personnel, recruitment, technical risks, uncertainties, etc.**
- **Describe (in point form) any strategies you plan to implement to mitigate risk(s)**

PART 13: PEER REVIEWER RECOMMENDATIONS

- All research proposals will be assessed by independent peer reviewers with the following guidelines:
- Three (3) peer reviews: A documented, critical review performed by peers, defined as scientists having technical expertise in the subject matter to be reviewed to a degree at least equivalent to that needed for the original work.
- Peer reviews can be completed by scientists from industry, academia and/or government
- The peer reviewer cannot be involved as a participant, supervisor, technical reviewer, or advisor in the work being reviewed, and cannot have collaborated with the applicant within the past three years or have plans to collaborate in the immediate future
- Please provide up to five (5) recommendations for peer reviewers
- **COHA reserves the right to accept OR reject reviewers nominated in the proposal**

	Name	Institution	E-mail Address
1			
2			
3			
4			
5			

PART 14: ADDITIONAL COLLABORATORS			
COLLABORATOR 4 (if applicable)		COLLABORATOR 5 (if applicable)	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
Role in project:		Role in project:	
COLLABORATOR 6 (if applicable)		COLLABORATOR 7 (if applicable)	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
Role in project:		Role in project:	
COLLABORATOR 8 (if applicable)		COLLABORATOR 9 (if applicable)	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
Role in project:		Role in project:	
*Role in project examples include: data analysis, statistical support, communication lead, etc.			

COLLABORATOR 10 (if applicable)		COLLABORATOR 11 (if applicable)	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
Role in project:		Role in project:	
COLLABORATOR 12 (if applicable)		COLLABORATOR 13 (if applicable)	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
Role in project:		Role in project:	
COLLABORATOR 14 (if applicable)		COLLABORATOR 15 (if applicable)	
Name:		Name:	
Position:		Position:	
Institution:		Institution:	
Address:		Address:	
Email:		Email:	
Phone #:		Phone #:	
Role in project:		Role in project:	
*Role in project examples include: data analysis, statistical support, communication lead, etc.			

Submission Deadline: Friday, September 15, 2017 (11:59PM EDT)

Please submit your completed research proposal in this fillable pdf form, and completed budget file in **Microsoft Excel** format by email to: jamie@fco.ca **

**All submitted proposals will receive an email confirming receipt within 2-3 business days.

If you have any questions, please contact: Jamie Aalbers, Research Coordinator, COHA;
jamie@fco.ca or 705-730-4403

PART 15: APPLICATION CHECKLIST

The following documents are to be completed and included in your full application submitted to jamie@fco.ca (no hard copies are required)

- Completed application in this fillable pdf form **ONLY**
- Completed budget in EXCEL only (pdf's will not be accepted)
- Signed Letters of commitment from all companies and organizations providing industry cash and/or in-kind to the project (these letters must confirm the amount of cash and/or in-kind that is included in the budget)