Confined Research Field Trial Application Form

This application form must be completed for each individual plant species. The application may include more than one Submission (genetic modification of that particular species), Trial Site Location and/or Trial Protocol. Complete Section 2 for each Submission, Section 3 for each Trial Site Location and Section 4 for each Trial Protocol included in the application. All sections must be completed. Additional pages can be attached if the space provided is not sufficient.

Applications for new and renewal of previously authorized confined research field trials should be submitted separately.

Section 1: General Information

1.1 Application Type	**1.2 Plant Species Name** 1.2.1 Latin Name(s)
□ New □ Renewal (perennials, disease nurseries, trees, etc.)	1.2.2 Common Name(s)

1.3 Feed Section, CFIA Indicate whether any plant material generated in the confined research field trials will be used as research material for livestock feed.	Yes	No
	□	□

1.4 Applicant 1.4.1 Name		**1.5 Canadian Agent** 1.5.1 Name	Complete if the applicant is not a Canadian resident
1.4.2 Address		1.5.2 Address	
1.4.3 Telephone	1.4.4 Facsimile	1.5.3 Telephone	1.5.4 Facsimile

Description of the Unmodified Plant Species

To complete if not already covered by a PBO Biology Document.

1.6 Fertility

Yes	1.6.1 Describe mechanisms and frequency of intra- and inter-specific outcrossing.
☐	
No	1.6.2 Describe the mechanism of infertility.
☐	

1.7 Habitat

1.7.1 Managed habitats in Canada
1.7.2 Un-managed habitats in Canada
1.7.3 List any locations in Canada or elsewhere where the plant species is a known pest.

1.8 Phenotypic Characteristics

Provide information on plant mechanisms responsible for:

1.8.1 Tendency for weediness
1.8.2 Allelopathy

Other Phenotypic Characteristics (continued)
Provide information on plant mechanisms responsible for:

1.8.3 Dormancy
1.8.4 Pollen dispersal
1.8.5 Seed dispersal
1.8.6 Vegetative dispersal

1.9 Toxins

1.9.1 List any known toxins for this species, including natural defence compounds.
1.9.2 Indicate the levels at which these compounds induce toxicity.
1.9.3 Indicate the species affected by these toxins.

1.10 Allergens

1.10.1 List any known allergens for this species, including natural defence compounds.

Section 2: Submission

Please fill out Section 2 for each individual Submission included in the application.

2.1 Name or Designation of PNT

2.2 Novel Trait(s) Identification

☐ Herbicide Tolerance	☐ Modified Oil	☐ Pharmaceutical
☐ Male sterility/restoration	☐ Virus Resistance	☐ Genetic Research
☐ Insect Resistance	☐ Stress Tolerance	☐ Generation of mutants
☐ Nutritional change	☐ Fungal Resistance	☐ Other:

2.3 Novel Trait(s)
Describe each specific novel trait associated with this PNT.

2.4 Import Permit No.
If PNT is imported, provide the import permit number issued under the *Plant Protection Act*.

2.5 History
Submission previously tested in Canada?
If yes, please provide PBO trial number(s), year(s) of authorization and location(s) tested.

☐ Yes

☐ No

2.6 Trait Introduction and Selection Method

2.6.1 Describe Induction Method (mutagenesis) or Transformation Method (rDNA techniques).
2.6.2 Describe Selection Method.
2.6.3 Describe Mode of action of traits (gene product, metabolic pathways).
2.6.4 Other Provide details of modification by any means other than mutagenesis or recombinant DNA techniques.

2.7 Gene Donor

Indicate the donor organism(s) of the gene(s) (for plants transformed using rDNA techniques).

2.8 Transformation Plasmids

Please provide the following information:

2.8.1 Name of plasmid (construct) and genetic map (map of each genetic construct required).		
2.8.2 Is the vector naturally pathogenic? (vector not transformed and without foreign DNA)	2.8.3 Is the vector inserted into the plant disarmed?	2.8.4 If yes, how was the vector disarmed?
Yes ☐ No ☐	Yes ☐ No ☐	
2.8.5 For each gene construct, describe all genes, regulatory elements, gene products, non-translated DNA sequences and, where applicable, affected metabolic pathways.		

2.9 Characteristics of the Novel Trait(s)

Spatial and Temporal Trait Expression			
Trait	Expression		
	Constitutive (Yes/No) If not constitutive, indicate the specific tissue(s) in which the trait is expressed (green tissue, , pollen, roots, other)	Is the trait expressed during a specific developmental stage? If yes, when?	Is the trait inducible? If yes, how?

2.10 Toxicity and Allergenicity of the Novel Trait(s)

2.10.1 To what extent are novel gene products toxic when ingested by native faunal populations, including mammals, birds, reptiles, and insects? How has this been determined?
2.10.2 To what extent are novel gene products allergens? How has this been determined?

2.11 Altered Plant Characterics

Please indicate any changes with respect to the following:

2.11.1 Weediness
2.11.2 Allelopathy
2.11.3 Dormancy
2.11.4 Pollen Dispersal
2.11.5 Seed Dispersal
2.11.6 Vegetative Dispersal
2.11.7 Please describe if any toxins and allergens are produced by the PNT that were not produced by the unmodified plant.

Section 3: Trial Site Location

Please fill out Section 3 for each Trial Site Location included in the application.

3.1 Town/City (nearest city)	**3.2 Province**	**3.3 Legal Land Location**
		The PBO will not authorize a confined field trial until the legal land location of the trial site has been given.
3.4 Field Manager 3.4.1 Name	Must be a Canadian resident and responsible for the trial site location.	**3.5 Trial Size** Trial size in meters^2
3.4.2 Address		**3.6 Map Location** Has a complete map location of the trial site been provided? Yes □ No □ A map and GPS coordinates for the trial site must be received by the PBO within 7 days following planting.
3.4.3 Telephone	3.4.4 Facsimile	

3.7 Habitat

3.7.1 Describe the biological diversity of the trial site, including potential impacts resulting from the field test.

Habitat (continued)

3.7.2 Is the trial site part of a managed ecosystem?	3.7.3 If yes, how close is the nearest natural ecosystem?
Yes ☐ No ☐	

3.7.4 How close is the site from an area of special ecological interest, including protected areas and sanctuaries?

3.8 Indigenous Species

3.8.1 Specify the related wild and cultivated plant species present at the trial site and how close they are to the novel plant material to be tested.

3.8.2 Are there any endangered species on or near the site?	3.8.3 If yes, please list.
Yes ☐ No ☐	

For information on endangered species that may be near the trial site location, contact the Canadian Wildlife Service, COSEWIC Secretariat (Committee on the Status of Endangered Wildlife in Canada), 351 Blvd. St-Joseph, Hull, P.Q., K1A 0H3, Telephone (819) 953-3215

3.8 Indigenous Species (continued)

3.8.4 What mechanisms are in place to prevent the local fauna from removing novel plant material from the site?

3.9 Post-Trial Land Use

3.9.1 Name and address of the person(s) having control over the site during the post-harvest land use period, including the isolation distance.
3.9.2 What is the anticipated post-trial land use?
3.9.3 Describe how the site boundaries will be marked to facilitate subsequent inspection.

Section 4: Trial Protocol

Please fill out Section 4 for each Trial Protocol included in the application.

4.1 Trial Protocol Title:	

4.2 Protocol Describe the purpose of the field trial.

4.3 Reproductive Isolation State the reproductive isolation measures being implemented for this trial and give details.
If using bags or nets, please provide the mesh size of the material being used and justify the effectiveness.

4.4 Seeding

4.4.1 Material will be planted:		4.4.2 Will any unmodified plants of the same or a related species be planted at the trial site location?	
By Hand	Mechanically	Yes	No
☐	☐	☐	☐

4.4.3 Describe your management plan to avoid the dissemination of seed from the trial site.
4.4.4 Describe your plan for recording the quantities of seed planted and any excess.
4.4.5 Describe the disposition plan, including how and where any excess, or non-planted, seed will be disposed of or stored.

4.5 Spraying *

Please complete this section if the trial site is subject to the use of an unregistered product, or a registered product used for a non-registered purpose.

4.5.1 Name of pesticide	4.5.2 Total area sprayed ($meters^2$)	4.5.3 Active ingredient
***** This information is also required by PMRA to determine compliance with the *Pest Control Products Act*.		

	Yes	No
4.5.4 **Unregistered Pesticide Use** Indicate whether the trial site location will be subject to unregistered pesticide use.	☐	☐

4.6 Harvesting

4.6.1 Will plants be allowed to set seed?	4.6.2 Describe the method of harvest for seed and other plant material (e.g. by hand, small plot combine, etc.)
Yes ☐ No ☐	
4.6.3 Will any harvested plant material be retained from the trial?	4.6.4 If yes, please indicate what type (e.g. seed, leaves, etc.) and how much harvested plant material will be retained and what is the purpose of retaining this material.
Yes ☐ No ☐	
4.6.5 Describe the storage method and storage location of harvested propagable plant material, if applicable.	
4.6.6 Provide the name, address and phone number of the contact person responsible for the storage of the propagable plant material and the storage records.	
4.6.7 Describe your management plan to avoid dissemination of seed from the trial site during harvesting.	

4.7 Disposition

4.7.1 Describe your disposition plan for all propagable and non-propagable plant material, including how and where the material will be disposed of.
4.7.2 Provide the name, address and phone number of the contact person responsible for the disposition of the material and the disposition records.

4.8 Contingency Plans

4.8.1 Describe your contingency plan in the case of accidental release of seed or plant material (e.g. spills), or the breakdown of isolation.
4.8.2 Describe your contingency plan if after accidental release there is unexpected spread of the novel plant material.

4.9 Monitoring the Trial Site

4.9.1 Describe the extent and frequency of trial site monitoring during the course of the field trial.
4.9.2 Describe the extent and frequency of trial site monitoring during the post-trial period.
4.9.3 Describe what monitoring results will be recorded, how they will be recorded and who is responsible for them.
4.9.4 If any controlled monitoring procedures are proposed for this trial (e.g. planting of modified or unmodified plants of a related species to determine possibility and frequency of gene flow), detail the procedures.

Section 5: Provincial Summary of Trial Sites

Please indicate the number of hectares per submission per province.

Please note: Section 2 must be completed for each Submission listed below and Section 4 must be completed for each Trial Protocol listed below.

Please duplicate this section if more space is required.

Province:

Submission (PNT designation):	Number of events / transformations tested	Town	Legal Land Location	Trial Protocol name	Hectares
				Total hectares: (Limit of 5 ha cumulative per province)	

Province:

Submission (PNT designation):	Number of events / transformations tested	Town	Legal Land Location	Trial Protocol name	Hectares
				Total hectares: (Limit of 5 ha cumulative per province)	