

Bromegrass – Foundation, Registered and Certified Production

The requirements shown here are specifically for Foundation, Registered and Certified production of Meadow, Smooth and Hybrid Bromegrass.

General Requirements for All Pedigreed Seed Crops

The basic standards for all crops are set out in [General Requirements for All Pedigreed Seed Crops](#). In addition, the following standards apply to Bromegrass.

Land Requirements*

Inspected Crop	Must NOT be grown on land which:
Foundation	<p>In any of the 5 years prior to the year of seeding produced:</p> <ul style="list-style-type: none">• a non-pedigreed crop of the same crop kind.• a different variety of the same crop kind. <p>In any of the 3 years prior to the year of seeding produced:</p> <ul style="list-style-type: none">• a pedigreed crop of the same variety.
Registered	<p>In any of the 3 years prior to the year of seeding produced:</p> <ul style="list-style-type: none">• a crop of the same crop kind.
Certified	<p>In any of the 2 years prior to the year of seeding produced:</p> <ul style="list-style-type: none">• a crop of the same crop kind.

*Except where chemical control measures acceptable to the CSGA have been taken to eradicate growth from a previous crop of Bromegrass. Meadow or Smooth Bromegrass prior to Hybrid Bromegrass would be considered the same kind.

Crop Inspection

Bromegrass crops must be inspected when the crop is headed and before harvest.

Age of Stand

The maximum number of years pedigreed seed can be produced from a stand of Bromegrass established with Breeder or Foundation seed is outlined below. The class that can be produced from a stand varies with the class used to establish the crop, the classes of seed through which a given variety may be multiplied and the number of years the stand has been in production.

Inspected crop	When crop is established with:									
	Breeder seed of a variety without a Registered class			Breeder seed of a variety with a Registered class			Foundation seed of a variety without a Registered class*		Foundation seed of a variety with a Registered class	
	Foundation	Certified	Foundation	Registered	Certified	Registered	Certified	Registered	Certified	
Meadow	4 yrs.	+ 2 yrs.	4 yrs.	+ 2 yrs.	6 yrs.	4 yrs.	+ 2 yrs.	4 yrs.	+ 2 yrs.	
Smooth & Hybrid	4 yrs.	+ 4 yrs.	4 yrs.	+ 4 yrs.	8 yrs.	4 yrs.	+ 4 yrs.	4 yrs.	+ 4 yrs.	

*Or when crop is established with Registered seed of a variety with a Registered class.

Crop Standards

Isolation

The isolation must be reasonably free from plants that may cross pollinate with the inspected crop. The risk to varietal purity posed by plants that may cross pollinate varies depending on area, density, stage of maturity and distance from the inspected crop. These factors will be taken into consideration in determining the pedigreed status of the inspected crop. Not more than 3 plants per square meter, on average, of plants that may cross pollinate with the inspected crop should be in the required isolation adjacent to an inspected crop.

Minimum Isolation Distances Required from an Inspected Crop to Other Crops:

1. Varietal Purity

	Distance
a. Inspected pedigreed crop of same variety and class	1 meter (3 feet)
b. Inspected pedigreed crop of same variety, different class	3 meters (10 feet)
c. Planted with Certified seed of the same variety	3 meters (10 feet)*
d. Different varieties of the same crop kind or non-pedigreed crop of the same crop kind	Isolation table below
e. Species that may cross pollinate (CP/DTD in contaminant table below)**	Isolation table below

* For Certified crop status only, provided the pedigree of the Certified seed used can be established.

** Although non-hybrid Meadow Bromegrass and Smooth Bromegrass varieties can cross-pollinate, asynchronous flowering can provide adequate temporal isolation, and typically exceeds two weeks in the major production regions of western Canada, but the mechanical purity isolation requirement of 2 meters (6 feet) would still be necessary.

Area of Inspected Crop	Minimum Isolation Distance		
	Foundation	Registered	Certified
5 acres or less	400 m (1312 ft)	300 m (984 ft)	150 m (492 ft)
More than 5 acres	300 m (984 ft)	100 m (328 ft)	50 m (164 ft)

Border Removal in Lieu of Isolation:

For seed crops in excess of 5 acres, removal of a border from the inspected crop in lieu of the required isolation to a different variety or non-pedigreed crop of the same crop kind is permitted as outlined in the table below. The border must be allowed to shed pollen before being discarded.

Border Removal in Lieu of Isolation Distances		
Inspected Crop	Actual isolation distance from contaminating source	Distance to be removed from the inspected seed crop
Foundation	300 m (984 ft) +	0 m (0 ft)
	200 - 299 m (656 - 983 ft)	3 m (10 ft)
	150 - 199 m (492 - 655 ft)	5 m (16 ft)
	less than 150 m (492 ft)	5 m (16 ft) + 150 m (492 ft) minus the actual isolation distance
Registered	100 m (328 ft) +	0 m (0 ft)
	75 - 99 m (246 - 327 ft)	3 m (10 ft)
	50 - 74 m (164 - 245 ft)	5 m (16 ft)
	less than 50 m (164 ft)	5 m (16 ft) + 50 m (164 ft) minus the actual isolation distance
Certified	50 m (164 ft)	0 m (0 ft)
	30 - 49 m (98 - 163 ft)	3 m (10 ft)
	25 - 29 m (82 - 97 ft)	5 m (16 ft)
	less than 25 m (82 ft)	5 m (16 ft) + 25 m (82 ft) minus the actual isolation distance

Maximum Impurity Standards

1. **Varietal Purity** (on average in either 10 or 100 m²)
 - a. Off-types/other varieties of the same crop kind
 - i. Foundation – 3 plants/100 m²
 - ii. Registered – 1 plant/10 m²
 - iii. Certified – 1 plant/10 m²
2. **Mechanical Purity** (on average in either 10 or 100 m²)
 - a. Plants of species that may cross pollinate (CP/DTD in contaminant table below)
 - i. Foundation – 3 plants/100 m²
 - ii. Registered – 1 plant/10 m²
 - iii. Certified – 1 plant/10 m²
 - b. Plants with seed difficult to separate (DTS) from seed of the inspected crop will report by frequency in the field and will not be a factor in the seed crop certification decision. For Bromegrass, that includes Meadow Fescue, Wheatgrass and Wildrye.

Inspected Crop	Contaminant		
	Meadow	Smooth	Hybrid
Meadow	n/a	CP/DTD	CP/DTD
Smooth	CP/DTD	n/a	CP/DTD
Hybrid	CP/DTD	CP/DTD	n/a