Fescue - Foundation, Registered and Certified Production

The requirements shown here are specifically for Foundation, Registered and Certified production of Chewing's, Creeping Red, Hard, Meadow, Sheep and Tall Fescue.

General Requirements for All Pedigreed Seed Crops

The basic standards for all crops are set out in <u>General Requirements for All Pedigreed Seed Crops</u>. In addition, the following standards apply to Fescue.

Land Requirements*

Inspected Crop	Must NOT be grown on land which:
Foundation	 In any of the 5 years prior to the year of seeding produced: a non-pedigreed crop of the same crop kind. a different variety of the same crop kind. In any of the 3 years prior to the year of seeding produced: a pedigreed crop of the same variety.
Registered	In any of the 3 years prior to the year of seeding produced: • a crop of the same crop kind.
Certified	In any of the 2 years prior to the year of seeding produced: • 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 Fescue.

Crop Inspection

Fescue 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 Fescue 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.

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				
Inspected crop	Foundation		Certified	Foundation		Registered	Certified	Registered		Certified
Chewing's, Creeping Red, Hard, Sheep	4 yrs.	+	2 yrs.	4 yrs.	+	2 yrs.	6 yrs.	4 yrs.	+	2 yrs.
Meadow, Tall	3 yrs.	+	3 yrs.	3 yrs.	+	3 yrs.	6 yrs.	3 yrs.	+	3 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:

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

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

^{**} Varieties of a different ploidy level may not cross pollinate and therefore may not require isolation for varietal purity but the mechanical purity isolation requirement (below) would still be necessary.

	Minimum Isolation Distance					
Area of Inspected Crop	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)			

2. Mechanical Purity

Distance

- a. Fescue species with seed difficult to distinguish in a lab test from seed of the 2 meters (6 feet) inspected crop, but do not cross pollinate (DTD only in contaminant table below)
- b. Fescue variety of the same kind but a different ploidy level 5

5 meters (16 feet)

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			

Border Removal in Lieu of Isolation (10% Rule) for **Certified** Crops of **Creeping Red Fescue** (not applicable to Foundation or Registered crops or any other types of Fescue):

For a Certified seed crop, 50 meters (164 feet) is normally required from the edge of the inspected crop to adjacent contaminating pollen sources including crops of different varieties or a non-pedigreed crop of Creeping Red Fescue. However, isolation requirements are based on the size of the Certified crop and the percentage of the crop within 50 meters of a contaminating pollen source (see demonstration of the 10% rule).

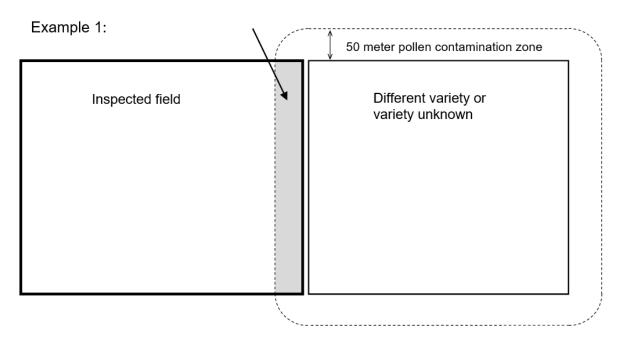
If the calculated area makes up more than 10% of the total inspected area of the seed crop, then border removal in lieu of isolation will be required (see table above). Borders must be allowed to shed pollen before being discarded.

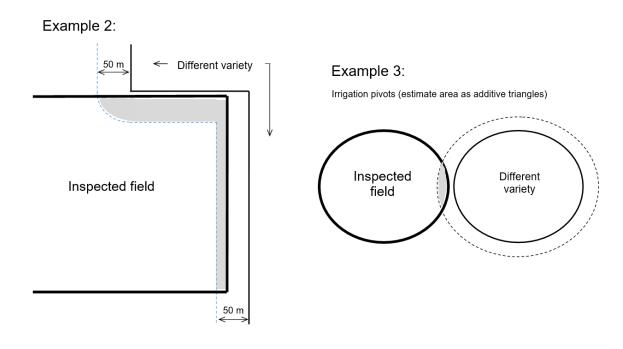
Even if each contaminating pollen source is separately affecting less than 10% of the seed field, the isolation correction/s will be required if, when combined, the sum total of all areas being affected is more than 10% of the entire seed field. For example, isolation correction is required if 6% of the west side of the field, and 5% of the south side of the field are within 50 meters of a different variety. Although each source of contamination is affecting less than 10% of the field, 11% (6+5) of the field is being affected in total so all sides affected will need to be corrected.

If the calculated area makes up 10% or less of the total inspected area of the seed crop, no border removal will be required provided there are at least 3 meters of isolation. A 3 meter isolation strip is always required between the inspected crop and adjacent contaminating pollen sources to prevent accidental harvest of the contaminating pollen source.

Demonstration of the 10% rule for Certified Crops of Creeping Red Fescue

The pollen contamination zone (shaded area) within the inspected field must not comprise more than 10 percent of the inspected seed crop area.





Canadian Regulations and Procedures for Pedigreed Seed Crop Production (Circular 6) Rev. February 1, 2024 Section 6

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) and plants of species with seed difficult to distinguish in a lab test from seed of the inspected crop, but do not cross pollinate (DTD only in contaminant table below) i.e., the combined total number of contaminant plants must not exceed
 - 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 be reported by frequency in the field and will not be a factor in the seed crop certification decision. For Fescue, that also includes Bromegrass, Ryegrass, Wheatgrass and Wildrye.

	Contaminant						
Inspected Crop	Chewings	Creeping Red	Hard	Meadow	Sheep	Tall	
Chewings	n/a	CP/DTD	DTD	DTS	DTD	DTS	
Creeping Red	CP/DTD	n/a	DTD	DTS	DTD	DTS	
Hard	DTD	DTD	n/a	DTS	DTD	DTS	
Meadow	DTS	DTS	DTS	n/a	DTS	DTS	
Sheep	DTD	DTD	DTD	DTS	n/a	DTS	
Tall	DTS	DTS	DTS	DTS	DTS	n/a	