

# Timothy – Foundation, Registered and Certified Production

## 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 Timothy.

### Land Requirements\*

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

\*Except where chemical control measures acceptable to the CSGA have been taken to eradicate growth from a previous crop of Timothy.

### Crop Inspection

Timothy 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 Timothy 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	
Foundation	Certified	Foundation	Registered	Certified	Registered	Certified
3 yrs.	+	2 yrs.				
		3 yrs.	+	2 yrs.	5 yrs.	
					3 yrs.	+
						2 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 Timothy of same variety and class	1 meter (3 feet)
b. Inspected pedigreed Timothy 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 Timothy or non-pedigreed Timothy	Isolation table below

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

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 Timothy is permitted as outlined in the table below. The border must be allowed to shed pollen before being discarded.

<b>Border Removal in Lieu of Isolation Distances</b>		
<b>Inspected Crop</b>	<b>Actual isolation distance from contaminating source</b>	<b>Distance to be removed from the inspected seed crop</b>
<b>Foundation</b>	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
<b>Registered</b>	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
<b>Certified</b>	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 Timothy (not applicable to Foundation or Registered crops):**

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 Timothy. 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.

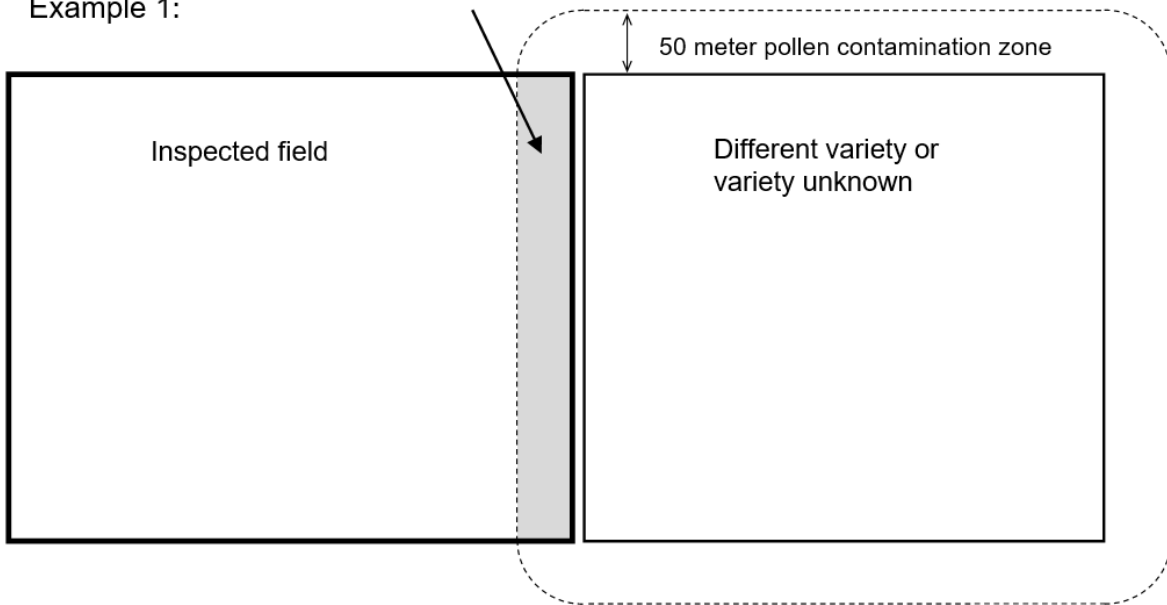
Even if each contaminating pollen source is separately affecting less than 10% of the seed field, the isolation correction/s will be required if, when combined, the sum total of all areas being affected is more than 10% of the entire seed field. For example, isolation correction is required if 6% of 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.

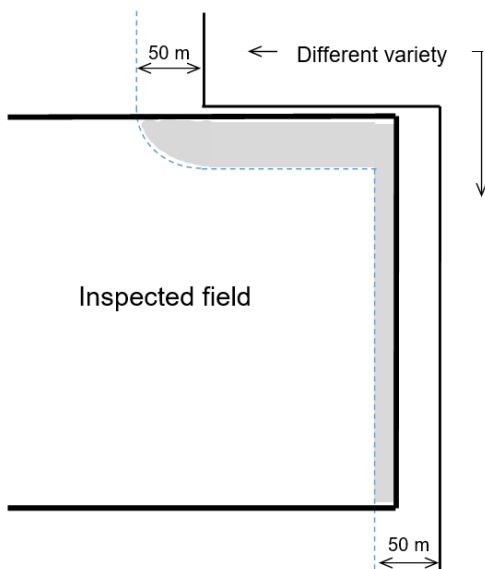
**Demonstration of the 10% rule for Certified Crops of Timothy**

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

Example 1:

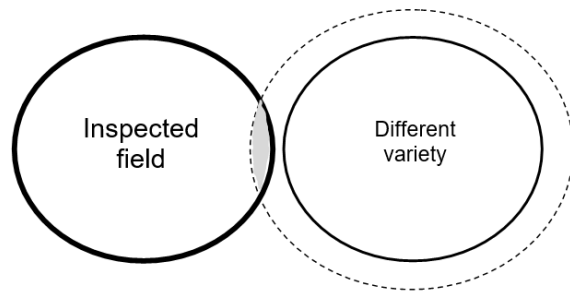


Example 2:



Example 3:

Irrigation pivots (estimate area as additive triangles)



### Maximum Impurity Standards

1. **Varietal Purity** (on average in either 10 or 100 m<sup>2</sup>)
  - a. Off-types/other kinds of the same crop kind
    - i. Foundation – 3 plants/100 m<sup>2</sup>
    - ii. Registered – 1 plant/10 m<sup>2</sup>
    - iii. Certified – 1 plant/10 m<sup>2</sup>