

# Mustard - Certified Production of Hybrid *B. juncea*

The requirements shown here are specifically for Certified production of Hybrid *B. juncea*, (including canola quality *B. juncea*). **Open-pollinated *B. juncea*, *S. alba* and *Carinata*** are not included and can be found under separate headings.

## 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 Hybrid *B. juncea*.

## Land Requirements

Inspected Crop	Must NOT be grown on land which:
Certified	<p>In any of the preceding 5 years has been planted with or produced a crop of:</p> <ul style="list-style-type: none"> <li>• Canola or Rapeseed (<i>B. napus</i>, <i>B. rapa</i>)</li> </ul> <p>In any of the preceding 3 years has been planted with or produced a crop of:</p> <ul style="list-style-type: none"> <li>• <i>Carinata</i> (<i>B. carinata</i>)</li> <li>• Mustard (<i>B. juncea</i>, <i>S. alba</i>)</li> <li>• Radish (<i>R. sativus</i>)</li> </ul>

## Crop Inspection

Hybrid *B. juncea* crops must be inspected when the crop is in the early flowering stage of the female parent. Both the A line and the Restorer line are inspected.

## Crop Standards

### Isolation

The first 50 meters of isolation must be practically free from plants that may cross pollinate (CP in table below) with the inspected seed crop (not more than 1 plant per 100 square meters, on average) and the remaining distance reasonably free from plants that may cross pollinate with the inspected crop (not more than 1 plant per 10 square meters, on average).

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.

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

1. Varietal Purity	Distance
a. Crop planted with Foundation* seed of the same pollen bearing (male) parent	3 meters (10 feet)
b. Crop planted with different pollen (male) parent of <i>B. juncea</i> or non-pedigreed crop of <i>B. juncea</i>	800 meters (2624 feet)
c. <i>B. napus</i> , <i>B. rapa</i> or <i>B. carinata</i>	800 meters (2624 feet)

\* Provided the pedigree of the Foundation seed used can be established.

**2. Mechanical Purity**

- a. *S. alba* or *R. sativus*

**Distance**

3 meters (10 feet)

**Border Rows**

1. Must be planted with the same seed as the pollen (male) parent rows.
2. Must be planted such that synchronous flowering occurs with pollen (male) parent rows and, more importantly, with receptive female parent plants of the inspected crop.

**Weeds**

1. The presence of Cleavers (*Galium aparine*) is cause for declining pedigreed status.
2. Wild mustard (*Sinapis arvensis*) must not be present in the area of the crop to be harvested for seed at an average of more than 1 plant/10,000 plants.

**Maximum Impurity Standards**

1. **Varietal Purity** (on average in 10,000 plants)
  - a. Off-types/other varieties of the same species – 1.5
  - b. Plants of species that may cross pollinate (CP in table below) – 1
2. **Mechanical Purity** (on average in 10,000 plants)
  - a. Plants of species with difficult to separate seeds (DTS in table below) – 3

Species	Canola ( <i>B. napus</i> )	Canola ( <i>B. rapa</i> )	Mustard Brown/Oriental ( <i>B. juncea</i> )	Mustard White/Yellow ( <i>S. alba</i> )	Carinata ( <i>B. carinata</i> )	Radish ( <i>R. sativus</i> )
<i>B. juncea</i>	CP	CP	n/a	DTS	CP	DTS

**3. Hybridity**

- a. Percent hybrid seed shall be determined by a method approved by the CFIA.
- b. Percent hybrid seed shall not be less than 80% for Hybrid Mustard. The balance of the seed should be parent line derivatives, resulting from incompletely controlled pollination in the seed field.
- c. A declaration (CSGA Form 180) stating the actual percent hybrid seed of a representative sample of the Hybrid Mustard seed crop, and the method of determining the percent hybrid seed, must be submitted to the CSGA prior to a crop certificate being issued.