
SECTION 3

FOUNDATION, REGISTERED AND CERTIFIED PRODUCTION OF BEAN, CHICKPEA, FABABEAN, LENTIL, LUPIN, PEA, AND SOYBEAN

In this Section:

- **Bean** includes field, garden, white, coloured, navy or dry edible type Bean.

Section 1, *Regulations for All Pedigreed Seed Crops*, together with the following, constitute the production regulations.

3.1 SEED CLASSES AND GENERATIONS

3.1.1 The number of official pedigreed classes is determined by the Breeder of the variety. Normally these are Foundation, Registered and Certified, unless otherwise specified by the Breeder.

- a) Breeder: controlled by the Plant Breeder. No generation limit.
- b) Select: normally 5 generations. Grown by accredited plot growers.
- c) Foundation: one generation.
- d) Registered: one generation.
- e) Certified: one generation.

3.1.2 For Select and Probation plot production, refer to Section 12.

3.1.3 For those growers who are not accredited by the CSGA to grow Probation, Select or Foundation plots, and who plant crops with Breeder or Select seed, the CSGA reserves the right to determine the status of the crop and may issue a Registered or Certified crop certificate.

3.1.4 A Foundation Soybean crop may be produced by a grower not accredited by the CSGA as a Plot Grower subject to the following requirements:

- a) Parent seed planted to produce the Foundation Soybean seed crop must be Breeder or Select status;
- b) In three of the past five years, the grower must have produced pedigreed Soybean seed crops;
- c) The Foundation Soybean seed crop must be produced under a contract and assigned to a Registered Seed Establishment (RSE) within an officially recognized Quality Management System subject to audit by the Canadian Seed Institute; and
- d) Seedlot(s) from the Foundation Soybean seed crop will be tested, by the grower or the RSE, for variety verification and test results will be available for CSGA audit.

3.2 LAND REQUIREMENTS

3.2.1 Crops should not be planted on land where volunteer growth from a previous crop may cause contamination.

3.2.2 Status granted to crops determined by previous crop

- a) Land requirements prevent production of a higher pedigreed status crop, of the same variety, than the pedigreed status of the crop produced on that land the previous year.
- b) Breeder or Select seed of the same variety may be sown in two consecutive years on the same land and the crop will be eligible for Foundation status. The third and fourth consecutive crops of the same variety on the same land, if planted with Breeder, Select or Foundation seed, will be eligible for Registered status.

- c) Foundation seed of the same variety may be sown in two consecutive years on the same land and the crop will be eligible for Registered status. The third and fourth consecutive crops of the same variety on the same land, if planted with Breeder, Select, Foundation or Registered seed, will be eligible for Certified status.
- d) Breeder, Select, Foundation or Registered seed of the same variety may be sown to produce a Certified seed crop on the same land for unlimited consecutive years.

3.2.3 “Land Use” Inspection

Non-pedigreed crops may be inspected to determine the eligibility of the land for pedigreed crop production the following year. Authorized seed crop inspectors conduct these inspections on request at the grower’s expense. Refer to Section 1.17.

3.2.4 “Land Use” Verification

If uncertain of the eligibility of land for pedigreed crop production, growers may submit to the CSGA a request for “Land Use Verification Prior to Planting.” (Section 1.17 and Appendix A.9.)

3.2.5 Specific Crop Land Requirements

The basic standards for all crops are set out in Section 1.17. In addition, the following apply to crops in this section:

Table 3.2.5: Specific Crop Land Requirements

Inspected Crop	Must NOT be grown on land which in the previous year produced:
Bean	A non-pedigreed crop of Bean or a different variety of Bean.
Chickpea	A non-pedigreed crop of Chickpea or a different variety of Chickpea.
Fababean	A non-pedigreed crop of Fababean or a different variety of Fababean.
Lentil	A non-pedigreed crop of Lentil or a different variety of Lentil.
Lupin	A non-pedigreed crop of Lupin or a different variety of Lupin.
Pea	A non-pedigreed crop of Pea or a different variety of Pea.
Soybean	A non-pedigreed crop of Soybean or a different variety of Soybean except as in Section 3.2.6.

3.2.6 Land Requirements for Certified Crops of Herbicide Tolerant Soybean Varieties

The following applies only when a *herbicide tolerant soybean variety* is to be grown for Certified crop status following a soybean crop of a different variety. (*Herbicide tolerant soybean variety* is defined for the purpose of pedigreed seed production as a variety of soybean in which plants of different soybean varieties can be eradicated in the crop by a herbicide.) A *herbicide tolerant soybean variety* for Certified status may be produced on land, which in the previous year produced a soybean crop of a different variety only if the following conditions are met:

- (i) The crop to be Certified is a soybean variety tolerant to at least one herbicide active ingredient.
- (ii) At least one of the herbicide active ingredients applied to the soybean crop for Certified status is a different herbicide active ingredient than that which was applied to the previous soybean crop.
- (iii) The previous soybean crop was sown with pedigreed seed of a variety not tolerant to at least one of the herbicide active ingredients being applied to the crop for Certified status.

3.3 CROP INSPECTION

The basic standards for all crops are set out in Section 1.7. In addition, the following apply to crops in this section:

- 3.3.1 It is the grower's responsibility to ensure that crops are inspected by an authorized inspector prior to swathing or harvesting.
- 3.3.2 A crop that is cut, swathed or harvested prior to crop inspection is not eligible for pedigree.
- 3.3.3 The crop must be inspected at a stage of growth when varietal purity is best determined. Crops not inspected at the proper stage for best determining varietal purity may be cause for declining pedigreed status.
- 3.3.4 **Soybean** crops must be inspected at maturity when at least 90% of the plants have dropped their leaves and the mature plants have distinguishing pod, pubescence and hilum colour characteristics.
- 3.3.5 **Fababean** crops must be inspected at full flower (low tannin small seeded varieties) or at maturity as leaves begin to drop (other varieties).
- 3.3.6 **Chickpea, Lentil and Lupin** crops must be inspected at full flower.
- 3.3.7 **Bean** (all types) crops must be inspected between 7 to 14 days after inception of flowering when flower colour can be observed.
- 3.3.8 **Pea** (all types) crops must be inspected at the early flower stage about 60 days after planting.

3.4 CROP STANDARDS

3.4.1 Isolation for All Crops in this Section

- a) The perimeter of the crop to be inspected must be clearly defined.
- b) The required isolation must be provided prior to the time of flowering and crop inspection, and may be clean summerfallow, non-contaminating native growth, forage crop, a grain crop or a cultivated row crop of another crop kind the seeds of which are easily separated from the inspected crop.
- c) Adjacent crops must not overlap.
- d) Any plants considered a source of contamination found within 3 meters (10 feet) of the inspected crop may be reason for declining pedigreed status.

Table 3.4.2: Minimum Isolation Distances Required from an Inspected Crop to Other Crops

Inspected Crop	Other Crops	Isolation Distance Required
Bean – Registered, Certified	- Any crop of Bean	3 meters (10 feet)
Bean – Foundation	- Inspected pedigreed Bean seed crop	3 meters (10 feet)
	- Non-pedigreed Bean crop	20 meters (65 feet)
Bean – all classes	- Chickpea, Fababean, Lentil, Lupin, Pea, Peanut, Soybean	3 meters (10 feet)
Chickpea	- Inspected pedigreed Chickpea of same variety	1 meter (3 feet)
	- Bean, Fababean, Lupin, Pea, Peanut, Soybean	3 meters (10 feet)
	- Crops of different varieties of Chickpea	
	- Non-pedigreed crop of Chickpea	
Fababean	- Inspected pedigreed Fababean of same variety	1 meter (3 feet)
	- Bean, Chickpea, Lentil, Lupin, Pea, Peanut, Soybean	3 meters (10 feet)
	- Crops of different varieties of Fababean	10 meters (30 feet)
	- Non-pedigreed crop of Fababean	
Lentil	- Inspected pedigreed Lentil of same variety	1 meter (3 feet)
	- Bean, Fababean, Lupin, Peanut, Soybean	3 meters (10 feet)
	- Crops of different varieties of Lentil	
	- Non-pedigreed crop of Lentil	
Lupin	- Inspected pedigreed Lupin of same variety	1 meter (3 feet)
	- Bean, Chickpea, Fababean, Lentil, Pea, Peanut, Soybean	3 meters (10 feet)
	- Crops of different varieties of Lupin	
	- Non-pedigreed crop of Lupin	
Pea	- Inspected pedigreed Pea of same variety	1 meter (3 feet)
	- Bean, Chickpea, Fababean, Lupin, Peanut, Soybean	3 meters (10 feet)
	- Crops of different varieties of Pea	
	- Non-pedigreed crop of Pea	
Soybean	- Inspected pedigreed Soybean crops of same variety	1 meter (3 feet)
	- Bean, Fababean, Lentil, Lupin, Pea, Peanut	3 meters (10 feet)
	- Crops of different varieties of Soybean	
	- Non-pedigreed crop of Soybean	

3.4.3 Weeds

- a) All crops for pedigree must be free of Prohibited noxious weeds.
- b) All crops for pedigree should be free of Primary noxious weeds.
- c) Very weedy crops may be declined pedigreed status.

3.4.4 Maximum Impurity Standards

- a) Crops with limited amounts of other crop kinds which are not difficult to separate, readily removable in processing and do not hinder crop inspection may be allowed pedigreed status.
- b) Impurities in pedigreed crops should be removed prior to crop inspection.
- c) The impurities outlined in Table 3.4.4 are the maximum levels for impurities. Variants may be specified by the responsible Breeder and are not considered impurities unless reported in excess of the acceptable level specified.
- d) Any combination of impurities may be reason for declining pedigreed status.
- e) Table 3.4.4 indicates the maximum number of plants of off-types or other varieties of the same crop kind permitted in approximately 10,000 plants of the inspected crop. The inspector makes 6 counts (10,000 plants each) in the field to determine the number of impurities. The resulting average must not exceed the maximum impurity standards in Table 3.4.4.

Table 3.4.4: Maximum Impurity Standards

Inspected Crop	Off-types or Other Varieties of the same crop kind		
	Foundation	Registered	Certified
Bean	1	2	5
Chickpea	1	2	5
Fababean	1	2	5
Lentil	1	2	5
Lupin	1	2	5
Pea	1	2	5
Soybean	2	4	20

3.5 SPECIFIC REQUIREMENTS

- 3.5.1 Foundation status crops may require submission of a 1 lb. (500 gram) seed sample for varietal purity verification testing.

