SECTION 12

PROBATION AND SELECT PLOT PRODUCTION OF SEED CROPS: BARLEY, BEAN, BUCKWHEAT, CANARYSEED, DURUM, FABABEAN, FLAX, LENTIL, LUPIN, OAT, PEA, RYE, SOYBEAN, TRITICALE, AND WHEAT

In this section:

- Barley includes spring and winter Barley.
- **Bean** includes field, garden, white, coloured, navy or dry edible type Bean.
- Oat includes covered and naked Oat.
- Pea includes Chickpea.
- *Rye* includes spring and fall (winter) Rye.
- *Triticale* includes spring and winter Triticale.
- Wheat includes spring and winter Wheat, Einkorn, Emmer and Spelt (unless otherwise specified). Durum is not included.

This Section also includes the requirements for Probation and Select Plot production of other crop kinds.

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

12.1 SEED CLASSES AND GENERATIONS

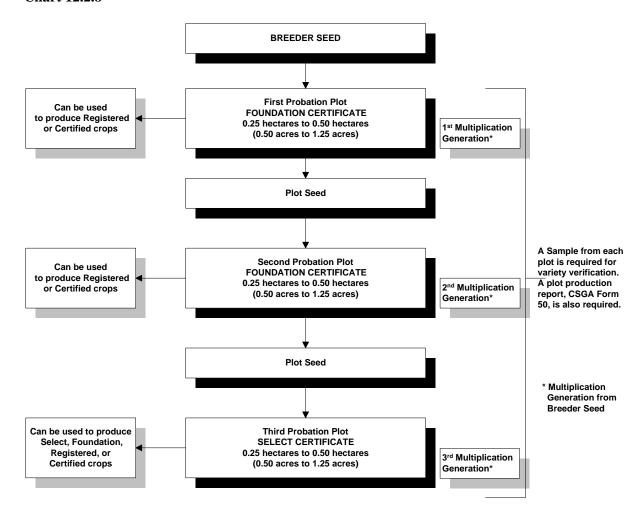
- 12.1.1 Breeder seed: determined by the Breeder.
- 12.1.2 Select seed: five generations, unless otherwise specified by the Breeder; except Field Beans, which are limited to one generation. Select seed is grown by accredited plot growers.
- 12.1.3 Foundation seed: one generation (refer to Sections 2 and 3).
- 12.1.4 Registered seed: one generation, unless otherwise specified by the Breeder (refer to Sections 2 and 3).
- 12.1.5 Certified seed: one generation (refer to Sections 2 and 3).
- 12.1.6 For growers not accredited to grow Probation or Select plots and who plant crops with Breeder seed, the CSGA reserves the right to determine the status of the inspected crop and may issue a Registered or Certified crop certificate.

12.2 PROBATION PLOT PRODUCTION

- 12.2.1 A grower wishing to produce a Select plot must receive permission from the CSGA and meet the requirements of the CSGA before commencing Probation plot production.
- 12.2.2 An *Application to Commence Probation Plot Production* (Form 154) is available from the CSGA and should be submitted prior to March 31 for spring seeded crops and prior to July 31 for fall seeded crops. Refer to Appendix A.6.

- 12.2.3 The grower may be required to have grown pedigreed seed crops of the crop kind in which the grower is commencing Probation, in at least 3 of the previous 5 crop seasons.
- 12.2.4 An individual seed grower must complete 3 successful years of Probation plot production in order to be granted Select plot grower status.
 - a) This status is granted to an individual seed grower only.
 - b) This status cannot be acquired through an affiliation with another seed grower or transferred to or from other Select plot growers.
- 12.2.5 Plots for First Year Probation status must be planted with Breeder seed. Select seed may be planted with the prior approval of the CSGA.
- 12.2.6 Breeder seed is obtained directly from the organization responsible for the variety. (Check with distributor for deadline dates).
- 12.2.7 Probationary growers may change varieties within the crop kind which they started their probation without receiving prior permission from the CSGA.
- 12.2.8 The status granted to plots produced during the probation is as follows (refer to Chart 12.2.8, next page):
 - a) First Year: provided all requirements are met, the First Year plot will be granted Foundation status. Sufficient seed is selected from this plot to plant the Second Year Probation plot and the balance of this seed may be used to produce Registered seed or Certified seed.
 - b) Second Year: provided all requirements are met, the Second Year plot will be granted Foundation status. Sufficient seed is selected from this plot to plant the Third Year Probation plot and the balance of this seed may be used to produced Registered seed or Certified seed.
 - c) Third Year: provided all requirements are met, the Third Year plot will be granted Select status and the seed may be used for further Select or Foundation production. The grower is now eligible to produce Select and Foundation plots.
- 12.2.9 Any means of processing or conditioning of seed from a Probation plot which may contaminate the varietal purity of the seed is prohibited.
- 12.2.10 A *Report of Plot Production* (Form 50) for each Probation plot will be sent to the grower and must be completed and submitted to the CSGA.
- 12.2.11 A sample of clean seed from each Probation plot must be submitted for variety verification. The sample must be representative of the seed harvested from the plot.
- 12.2.12 Probation plot growers must obtain new Breeder or Select seed if the plot is declined pedigreed status.
- 12.2.13 Probation plot growers may produce only 1 plot in each year of Probation.

Chart 12.2.8



12.2.14 Area of Probation Plot

- a) The total area of a Probation plot must not exceed 0.5 hectare (1.25 acres) or be less than 0.25 hectare (0.5 acre).
- b) When unforeseen circumstances do not permit proper maintenance of the entire plot, it is recommended that the area be reduced by destroying part of the plot or by isolating a part to meet the requirements of a lower status of pedigreed seed. The remainder must meet the requirements for Probation plot production.
- c) The total area of a Probation plot includes "walkways" provided within the plot to facilitate effective roguing.
- 12.2.15 Probation plots in this section are subject to all Select plot production requirements.

12.3 SELECT PLOT PRODUCTION

- 12.3.1 An individual seed grower must complete 3 successful years of Probation plot production in order to be granted Select plot grower status.
 - a) This status is granted to an individual seed grower only.
 - b) This status cannot be acquired through an affiliation with another seed grower or transferred to or from other Select plot growers.

- 12.3.2 Plots for Select status must be planted with Breeder seed or Select seed.
- 12.3.3 Select seed obtained from another Select seed grower may not be used for the production of a Select or Probation plot unless transferred in compliance with CSGA requirements.
- 12.3.4 Normally 5 generations of Select plot production from Breeder seed are allowed. Field Beans are limited to one generation.
- 12.3.5 Information on the number of generations permitted in the Select class is available from the CSGA.
- 12.3.6 Select and Probation Bean plots must be planted with Breeder seed unless otherwise specified by the Breeder, to reduce the risk of seedborne disease transmission.
- 12.3.7 Breeder seed is obtained directly from the organization responsible for distribution of the variety. (Check with distributor for application deadline dates).
- 12.3.8 Any means of processing or conditioning of seed from a Select plot which may contaminate the varietal purity of the seed is prohibited.
- 12.3.9 A *Report of Plot Production* (Form 50) for each Select plot will be sent to the grower and must be completed and submitted to the CSGA.
- 12.3.10 A sample of clean seed from each Select plot must be submitted for variety verification. The sample must be representative of the seed harvested from the plot.
- 12.3.11 A Select seed grower must obtain new Breeder seed or Select seed if the plot is declined for any reason other than excess acreage.

12.3.12 Area of Select Plots

- a) There is no limit on total acreage of plots, number of crop kinds, number of varieties or acreage of one variety. Each plot is limited to 1 hectare (2.5 acres) in size.
- b) When unforeseen circumstances do not permit proper maintenance of the entire plot, it is recommended that the area be reduced by destroying part of the plot or by isolating a part to meet the requirements of a lower status of pedigreed seed. The remainder of the plot must meet the requirements for Select plot production.
- c) The area of a Select plot includes "walkways" provided within the plot to facilitate effective roguing.

12.4 LAND REQUIREMENTS

- 12.4.1 Crops should not be planted on land where volunteer growth from a previous crop may cause contamination.
- 12.4.2 Plots may be grown, for example, on land which in the required previous years was effectively summerfallowed or produced perennial forage crops.

12.4.3 **Previous Land Use**

a) The basic standards for all crops are set out in Section 1.17. Note that land use inspections are not used for subsequent production of Select, Probation or Foundation Plots because the land use inspections are considered non-pedigreed crops. In addition to the basic standards, the following apply to crops in this section:

Table 12.4.3: Specific Crop Land Requirements

Select Plot Crop	Land Requirements			
Barley (Spring	Must NOT be grown on land which:			
and Winter)	 In the previous year produced: a Foundation, Registered or Certified crop of Barley; 			
	 In either of the preceding 2 years produced: 			
	- a non-pedigreed crop of Barley, Buckwheat, Durum, Oat, Rye,			
	Triticale, or Wheat;			
	- a crop of a different variety of Barley;			
	- a Certified crop of Barley.			
Bean	Must NOT be grown on land which:			
	In the previous year produced:			
	- a non-pedigreed Bean crop;			
	- a crop of a different variety of Bean;			
	- a Foundation, Registered or Certified crop of Beans.			
Buckwheat	Must NOT be grown on land which:			
	• In the previous year produced:			
	- a Foundation, Registered or Certified crop of Buckwheat;			
	 In either of the preceding 2 years produced: a non-pedigreed crop of Buckwheat; 			
	- a crop of a different variety of Buckwheat;			
	- a Certified crop of Buckwheat.			
Canaryseed	Must NOT be grown on land which:			
Cullulyseeu	In the previous year produced:			
	- a Foundation, Registered or Certified crop of Canaryseed;			
	• In either of the preceding 2 years produced:			
	- a non-pedigreed crop of Canaryseed or Flax;			
	- a Certified crop of Canaryseed.			
Durum	Must NOT be grown on land which:			
	In the previous year produced:			
	- a Foundation, Registered or Certified crop of Durum.			
	• In either of the 2 preceding years produced:			
	- a crop of Spring Wheat;			
	- a non-pedigreed crop of Barley, Buckwheat, Durum,			
	Winter Wheat, Oat, Rye, or Triticale;			
	a crop of a different variety of Durum;a Certified crop of Durum.			
	- a Certified Crop of Durum.			

Table 12.4.3 (continued): Specific Crop Land Requirements

Select Plot Crop	Land Requirements		
	-		
Fababean	Must NOT be grown on land which:		
	In the previous year produced: One medianed February company One medianed February com		
	a non-pedigreed Fababean crop;a crop of a different variety of Fababean;		
	- a Foundation, Registered or Certified crop of Fababeans.		
Flax	Must NOT be grown on land which:		
	In the previous year produced:		
	- a Foundation, Registered or Certified crop of Flax;		
	 In either of the preceding 2 years produced: 		
	- a non-pedigreed crop of Canaryseed or Flax;		
	- a crop of a different variety of Flax;		
	- a Certified crop of Flax.		
Lentil	Must NOT be grown on land which:		
Zenen	In the previous year produced a Lentil crop.		
Lupin	Must NOT be grown on land which:		
•	In the previous year produced a Lupin crop.		
Oat	Must NOT be grown on land which:		
	In the previous year produced:		
	- a Foundation, Registered or Certified crop of Oat;		
	• In either of the preceding 2 years produced:		
	- a non-pedigreed crop of Barley, Buckwheat, Durum, Oat, Rye, Triticale or Wheat;		
	- a crop of a different variety of Oat;		
	- a Certified crop of Oat.		
Pea	Must NOT be grown on land which:		
	• In the previous year produced a Pea crop.		
Rye (Spring and	Must NOT be grown on land which:		
Winter)	In the previous year produced:		
	- a Foundation, Registered or Certified crop of Rye;		
	• In either of the preceding 2 years produced:		
	- a non-pedigreed crop of Barley, Buckwheat, Durum, Oat, Triticale, or Wheat;		
	• In any of the preceding 3 years produced:		
	- a non-pedigreed crop of Rye or a different variety of Rye;		
	- a Certified crop of Rye.		
Soybean	Must NOT be grown on land which:		
	• In the previous year produced:		
	- a non-pedigreed Soybean crop;		
	- a crop of a different variety of Soybean;		
	- a Foundation, Registered or Certified crop of Soybeans.		

Table 12.4.3 (continued): Specific Crop Land Requirements

Select Plot Crop	Land Requirements			
Triticale	Must NOT be grown on land which:			
(Spring and	In the previous year produced:			
Winter)	- a Foundation, Registered or Certified crop of Triticale;			
	• In either of the preceding 2 years produced:			
	- a non-pedigreed crop of Barley, Buckwheat, Durum,			
	Oat, Rye or Wheat;			
	• In any of the preceding 3 years produced:			
	- a non-pedigreed crop of Triticale or a different variety of Triticale;			
	- a Certified crop of Triticale.			
Wheat (Winter)	Must NOT be grown on land which:			
	• In either of the preceding 2 years produced:			
	- a non-pedigreed** crop of Barley, Buckwheat, Durum, Oat, Rye, Triticale or Wheat;			
	- a crop of a different* variety of Wheat;			
	- a Certified crop of Wheat.			
Wheat (Spring)	Must NOT be grown on land which:			
	In the previous year produced:			
	- a Foundation, Registered or Certified crop of Wheat;			
	-a crop of Durum			
	• In either of the preceding 2 years produced:			
	- a non-pedigreed** crop of Barley, Buckwheat, Oat, Rye, Durum or			
	Triticale;			
	• In any of the preceding 3 years produced:			
	- a non-pedigreed** crop of Wheat or a different* variety of Wheat;			
	- a Certified crop of Wheat.			

⁻ In crops of pest tolerant varietal blends:

12.5 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:

- 12.5.1 It is the grower's responsibility to ensure that plots are inspected by an authorized inspector prior to swathing or harvesting.
- 12.5.2 A plot that is cut, swathed or harvested prior to crop inspection is not eligible for pedigree.
- 12.5.3 The plot 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.

^{* &}quot;different" variety means a variety other than the varieties prescribed in the description of the pest tolerant variety.

^{** &}quot;non-pedigreed" crop means a crop that did not meet requirements of Circular 6.

- 12.5.4 All plots must be inspected by an authorized inspector at least once before harvest.
- 12.5.5 **Cereal** plots must be headed.
- 12.5.6 **Soybean** plots must be inspected at maturity.
- 12.5.7 **Fababean** plots must be inspected either at flowering or at maturity depending on the type.
- 12.5.8 **Bean** plots must be inspected twice before harvest by an authorized inspector. The first inspection must be made between 10 and 20 days after full bloom; the second inspection must be made at maturity.
- 12.5.9 All other plots must be in bloom.

12.6 CROP STANDARDS

12.6.1 Isolation

- a) Except for Bean plots for which this is not permitted, a 1 meter (3 feet) isolation strip is required between plots of the same variety and between plots and crops eligible for Foundation status providing that Foundation status crops were planted:
 - (i) with seed of equivalent pedigreed status to that of the plot; and
 - (ii) on land that meets equivalent land use requirements of that plot.
- b) The isolation strip must not be a source of contamination.
- c) Plots of Barley, Buckwheat, Canaryseed, Durum, Flax, Oat, Rye, Triticale and Wheat need not be isolated from crops of Bean, Fababean, Lentil, Lupin, Pea and Soybean.
- d) Staking of a plot perimeter is permitted, except for Bean plots, in lieu of the 1 meter (3 feet) isolation strip required in 12.6.1 a), if it meets CSGA requirements for plot staking, which include the following:
 - (i) Stake locations must be clearly identified on the *Application for Crop Inspection* map(s) that are submitted to CSGA by the deadline date for that crop kind.
 - (ii) Staking must include at least 8 stakes that are clearly visible and clearly define the perimeter of the plot at the time of inspection.
 - (iii) Impurities reported within a plot's isolation distance required in Table 12.6.2 are considered within the plot for CSGA appraisal purposes.

Table 12.6.2: <u>Minimum Isolation Distances Required Between Select Plots</u> and Other Crops

Note: A "Pedigreed crop of the same variety" is a crop that is inspected and eligible for pedigreed status. It does not mean a crop planted with pedigreed seed for commercial production.

Select Plot Crop	Other Crops	Isolation Distance Required
Barley	 Inspected pedigreed Barley of same variety Buckwheat, Durum, Oat, Rye, Triticale, Wheat 	3 meters (10 feet)
	 Different varieties of Barley Non-pedigreed Barley Inspected pedigreed Barley of same variety contaminated with off-types or other varieties of Barley 	10 meters (33 feet)
Bean	 Fababean, Lentil, Lupin, Pea, Peanut, Soybean Inspected pedigreed Bean of same variety Different varieties of Bean Non-pedigreed Bean 	3 meters (10 feet) 30 meters (33 feet)
	- Inspected pedigreed Bean of same variety contaminated with off-types or other varieties of Bean	
Buckwheat	Inspected pedigreed Buckwheat of same varietyBarley, Durum, Oat, Rye, Triticale, Wheat	3 meters (10 feet)
	- Crop planted with Certified seed of the same variety	3 meters (10 feet), provided the pedigree of the Certified seed used can be established and that the adjacent crop is free for 400 meters (1,320 feet) from non-pedigreed or different varieties of Buckwheat
	- An adjacent crop that has more than 0.5% plants of Buckwheat	150 meters (492 feet)
	 Different varieties of Buckwheat Non-pedigreed Buckwheat Inspected pedigreed Buckwheat of same variety contaminated with off-types or other varieties of Buckwheat 	400 meters (1,320 feet)

Table 12.6.2 (continued): Minimum Isolation Distances Required Between Select Plots and Other Crops

Select Plot Crop	Other Crops	Isolation Distance Required
Canaryseed	 Inspected pedigreed Canaryseed of same variety Flax Different varieties of Canaryseed Non-pedigreed Canaryseed Inspected pedigreed Canaryseed of same variety contaminated with off-types or other varieties of 	3 meters (10 feet) 10 meters (33 feet)
Durum	 Canaryseed Inspected pedigreed Durum of same variety Barley, Buckwheat, Oat, Rye, Triticale, Wheat Different varieties of Durum Non-pedigreed Durum Inspected pedigreed Durum of same variety contaminated with off-types or other varieties of Durum 	3 meters (10 feet) 10 meters (33 feet)
Fababean	 Inspected pedigreed Fababean of same variety Bean, Lentil, Lupin, Pea, Peanut, Soybean Different varieties of Fababean Non-pedigreed Fababean Inspected pedigreed Fababean of same variety contaminated with off-types or other varieties of Fababean 	3 meters (10 feet) 10 meters (33 feet)
Flax	 Inspected pedigreed Flax of same variety Canaryseed Different varieties of Flax Non-pedigreed Flax Inspected pedigreed Flax of same variety contaminated with off-types or other varieties of Flax 	3 meters (10 feet) 10 meters (33 feet)
Lentil	 Inspected pedigreed Lentil of same variety Bean, Fababean, Lupin, Peanut, Soybean Different varieties of Lentil Non-pedigreed Lentil Inspected pedigreed Lentil of same variety contaminated with off-types or other varieties of Lentil 	3 meters (10 feet) 10 meters (33 feet)

Table 12.6.2 (continued): Minimum Isolation Distances Required Between Select Plots and Other Crops

Select Plot	Other Crops	Isolation Distance		
Crop	7 1 11 17 1 0	Required		
Lupin	- Inspected pedigreed Lupin of same variety			
	- Bean, Fababean, Lentil, Pea, Peanut, Soybean	3 meters (10 feet)		
	- Different varieties of Lupin			
	- Non-pedigreed Lupin	10 (22 f)		
	- Inspected pedigreed Lupin of same variety	10 meters (33 feet)		
	contaminated with off-types or other varieties of			
Oat	Lupin Inspected addispeed Oct of some veriety			
(All types)	Inspected pedigreed Oat of same varietyBarley, Buckwheat, Durum, Rye, Triticale,	3 maters (10 feet)		
(All types)	Wheat	3 meters (10 feet)		
	- Different varieties of Oat			
	- Non-pedigreed Oat			
	- Inspected pedigreed Oat of same variety	10 meters (33 feet)		
	contaminated with off-types or other varieties of	10 meters (33 rect)		
	Oat			
Oat	- Any crop contaminated with Wild Oat	20 meters (66 feet)		
(Hulless only)	This crop containmated with what out	20 meters (00 reet)		
Pea**	- Inspected pedigreed Pea of same variety			
	- Bean, Fababean, Lupin, Peanut, Soybean	3 meters (10 feet)		
	- Different varieties of Pea	(
	- Non-pedigreed Pea			
	- Inspected pedigreed Pea of same variety	10 meters (33 feet)		
	contaminated with off-types or other varieties of			
	Pea			
Rye	- Inspected pedigreed Rye of same variety			
	- Barley, Buckwheat, Durum, Oat, Triticale,	3 meters (10 feet)		
	Wheat			
	- Crop planted with Certified seed of the same	3 meters (10 feet),		
	variety	provided the pedigree of		
		the Certified seed used		
		can be established and		
		that the adjacent crop is		
		free for 400 meters		
		(1,320 feet) from non-		
		pedigreed or different		
		varieties of Rye		
	- An adjacent crop that has more than 0.5% plants of Rye	150 meters (492 feet)		
	- Different varieties of Rye	400 meters		
	- Non-pedigreed Rye	(1,320 feet)		
	- Inspected pedigreed Rye of same variety			
	contaminated with off-types or other varieties of			
	Rye			

Table 12.6.2 (continued): Minimum Isolation Distances Required Between Select Plots and Other Crops

Select Plot Crop	Other Crops	Isolation Distance Required
Soybean	 Inspected pedigreed Soybean of same variety Bean, Fababean, Lentil, Lupin, Pea, Peanut Different varieties of Soybean Non-pedigreed Soybean Inspected pedigreed Soybean of same variety contaminated with off-types or other varieties of Soybean 	3 meters (10 feet) 10 meters (33 feet)
Triticale	 Inspected pedigreed Triticale of same variety Barley, Buckwheat, Durum, Oat, Rye, Wheat Different varieties of Triticale Non-pedigreed Triticale Inspected pedigreed Triticale of same variety contaminated with off-types or other varieties of Triticale 	3 meters (10 feet) 30 meters (100 feet)
Wheat	 Inspected pedigreed Wheat of same variety Barley, Buckwheat, Durum, Oat, Rye, Triticale Different* varieties of Wheat Non-pedigreed Wheat Inspected pedigreed Wheat of same variety contaminated with off-types or other varieties of Wheat 	3 meters (10 feet) 10 meters (33 feet)

^{*} In crops of pest tolerant varietal blends, "different" variety means a variety other than the varieties prescribed in the description of the pest tolerant variety.

12.6.3 **Weeds**

- a) The plot must show evidence of good weed control and should be free of Prohibited and Primary noxious weeds.
- b) Very weedy plots may be declined pedigreed status.

12.6.4 Maximum Impurity Standards

The inspector makes 6 counts (20,000 plants each) in the plot to determine the number of impurities. The resulting average must not exceed the maximum impurity standards.

- a) The plot must not contain more than 1 plant in approximately 20,000 plants of another variety or off-type unless variants are specified by the responsible Breeder.
- b) In a **Soybean** plot, the plot must not contain more than 2 plants in approximately 20,000 plants of another variety or off-type unless otherwise specified by the Breeder of the variety.
- c) The plot must not contain more than 1 plant in approximately 20,000 plants of other crop kinds difficult to separate from the seed produced in the plot.

^{** 3} meters of isolation is required between pea and chickpea

12.7 RECOMMENDED PROCEDURES FOR THE PRODUCTION OF PROBATION AND SELECT PLOTS

12.7.1 **Planting of Plots**

- a) The plot should be planted in such a manner as to facilitate inspection and effective removal of plants of off-types, other varieties, other kinds and weeds.
- b) **Bean, Fababean, Lentil, Pea** and **Soybean** should be planted in rows over 18 cm (7 inches) apart.
- c) To facilitate roguing and harvesting, the seed should be sown in single or double rows or in blocks of 4 to 6 rows with a space of approximately 50 cm (20 inches) between rows or blocks of rows.
- d) Plots should be planted in areas easily accessible for frequent maintenance and provide the maximum protection from outside sources of contamination, such as roadways and building sites.
- e) Plots susceptible to ergot should not be located adjacent to grassland.
- f) Regulations for land requirements are minimum standards and caution is necessary in choosing land, as volunteer growth from previous crops may vary according to local conditions.
- g) The regulations for isolation are minimum standards. It is always to the grower's advantage to provide more isolation than required.
- h) When planting Probation and Select plots, specific requirements may influence the location and size of the plot. It is a safeguard if adjacent crops are the same variety as the plot and are inspected for pedigreed status.

12.7.2 Roguing of Probation and Select Plots

- a) The plot must be thoroughly and intensively rogued many times throughout the crop season.
- b) The numbers and kinds of plants removed should be recorded and described on the *Report of Plot Production* (CSGA Form 50).
- c) All rogued plants must be removed from the plot area.

12.7.3 Harvesting, Cleaning and Storing of Probation and Select Plots

- a) A Probation or Select plot grower should have access to the necessary equipment for harvesting and cleaning the seed from the plot in such a manner as to ensure that the varietal purity of the seed is maintained.
- b) The seed should be stored in a clean, cool, dry area.
- c) The seed containers should be labelled for identification.

12.7.4 **Probation and Select Plot Grower Courses**

a) Probation and Select plot growers are encouraged to attend courses on plot production organized by the CSGA.