

Seed Certification



GENERAL RULES Ref SR001

20 November 2004

The following rules are to be applied in conjunction with the specific crop rules

OBJECTIVE

Seed certification is provided for the production of one or more of the following attributes:- true-to-type, disease free, or weed free seed. The seed may be produced for the domestic market or for export in accordance with the requirements of international seed schemes for the Varietal Certification of Seed moving in international trade.

DEFINITIONS

Seed can be produced as either open pollinated or through hybridization. The definitions for the various categories of seed are attached in APPENDIX A.

The word **certification** shall in general refer to the production of any stage listed.

ACCEPTANCE OF CULTIVARS

International Certification - Acceptance of a cultivar or hybrid for certification is subject to its inclusion on a national list of approved cultivars in Australia or another country. Accurate descriptions including morphological and agronomic characters of the cultivar or hybrid and its parental constituents are to be supplied to QSEED and standard samples of each cultivar, hybrid and its parental lines lodged with the authority.

Domestic Certification - Any cultivar or hybrid for domestic certification is acceptable provided the cultivar or hybrid is named and described to the satisfaction of QSEED.

APPLICATIONS FOR REGISTRATION

Applications for registration of areas for the certification of seed, are to be submitted on the approved form SC1 to QSEED by the time stipulated in the following.

- **Silk forage sorghum** - the application must be submitted 4 weeks **prior** to land preparation.
- **Pasture seed** - varies depending on the species. Refer to the specific rules for details.
- For **All other crops** the application must be submitted no later than two weeks prior to the first inspection.

ELIGIBILITY OF AREA

An area to be acceptable for certification must not have grown any species that may contaminate the seed crop with off-types or diseases during a specified time. This can vary from 12 months to 2 years depending on the species, unless the previous crop was the same or higher category and the same cultivar. Hybrids are not acceptable as the same cultivar, unless the previous hybrid had the same female parent. Please refer to the specific rules for details.

SEED ORIGIN

The seed source used to sow a registered area is to be nominated on the form "**Application for Registration**" (SC1). A certification number or lot number must be included in this form.

All labels from seed sown to establish registered areas for the production of stage B, basic, certified or approved seed are to be retained by the grower as evidence of seed origin and supplied to the inspecting officer upon request.



Although circumstances may vary under normal planting procedures, the following categories of seed shall be used:-

If you wish to plant

- Pre Basic seed areas use Breeders seed
- Basic seed areas use Pre Basic seed
- Certified seed areas use Basic seed
- Approved/VIP use Certified seed

Special procedures are applied for crops grown for disease freedom. Please refer to the specific rules for further details. Certified seed may only be used for planting certified seed areas in special circumstances. Check with the Certification authority for approval.

ISOLATION

Crops must comply with minimum isolation distances as specified in the individual crop rules.

The isolation listed may vary or be reduced if in the opinion of the Certification Authority, the crop is grown in a situation where a physical barrier effectively achieves isolation.

NOTICE REQUIRED FROM APPLICANT

To enable the crop to be inspected, the applicant and seed cleaner is to notify the inspector or seed certification officer:-

- at 7 days prior to expected flowering, &
- not less than 7 days before cleaning.

INSPECTIONS

The Seed Certification Officer may carry out an inspection to:-

- determine eligibility of land;
- check on the isolation of the area;
- identify the seed source sown, labels must be retained by the grower and supplied to the inspecting officer on request;
- carry out a field inspection in accordance with the specific rules;
- supervise the harvesting, cleaning and labelling of the seed as required.

For inspection procedures refer to the information leaflet IL003 for full details.

PLANTING HARVESTING AND PROCESSING MACHINERY

Every machine, bulk bin or other container intended for sowing, harvesting, cleaning or packaging seed is to be free of seed and any crop residues likely to contaminate the seed.

Machinery used in crops subject to disease free seed may need to be disinfected to control diseases as specified in the specific rules.

SAMPLING SEED

For each lot of certified or basic seed, a sample must be drawn in accordance with ISTA rules and submitted to the official laboratory for analysis.

For OECD produced seed

- One part of each sample is to be tested for purity and germination;
- One part of each sample is to be set aside for grow-on testing. A minimum of 30g or 1200 seeds whichever is the lower is required. For details refer to the sampling procedures leaflet IL003.
- One part of each sample to be stored for one year in the case of certified seed and as long as necessary for basic seed for future field testing.

For Domestic seed

- One part of each sample is to be tested for purity and germination;

IDENTIFICATION OF SEED

When seed is to be moved from a property for cleaning, the grower is to complete a copy of the yellow “**Yield Declaration/Sample Submission Form**”(SC8). A copy is to be sent to the seed cleaning premises:-

- by post to arrive at the premises prior to receipt of the seed; or
- with the seed lot firmly affixed to a bag; or
- hand delivered.

Each container is to be clearly identified with the cultivar name and the certification area number.

Temporary labels may need to be attached for positive identification.

CROP REJECTION

Seed may be rejected for the purposes of certification if at any time;

- The requirements of the **General Rules** or the relevant crop rules have not been met.
- Plant density, weed growth, disease or any other circumstance render it impractical to adequately inspect the crop.
- Diseases are present to such an extent as to have a detrimental effect on seed quality.
- The line fails to comply with the minimum standards as listed in the crop rules.
- Off-types are detected which are in excess of that listed in the rules.
- Any operations are not carried out in such a way as to prevent contamination of the seed before, during, or after harvesting.

LABELLING OF SEED

All necessary steps are to be taken to ensure that the identity, varietal purity and or disease freedom of seed grown under certification are maintained.

Packaging of seed

Cleaned seed is to be packed in new bags or thoroughly cleaned bulk bins or other containers which are at all times clearly marked with the name of the cultivar or hybrid and the registered area number from which that seed was harvested.

Seed Treatment

If seed requires treatment to control insect pests or diseases, the pesticides to be used shall be those registered for use and used in accordance with the registered label.

Seed Standards

Before being eligible for labelling as certified seed each line must meet the minimum standards as listed in the specific rules.

Each package is to be labelled with a numbered certification label. The label or package is to include the following to validate certification and will be prepared by the Certification Authority:-

- Queensland Certified (or Pre Basic, Basic, stage A or stage B) Seed;
- Species (botanical and common names);
- Cultivar Name;
- Reference or Registration No, that is AUS/Q/XXXX;

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QSEED Pty Ltd, Seed & Turf Certification. www.qseedinfo.com

- The date of packaging of the seed.

It may also need to be necessary to attach warranted test information. Refer to the state based legislation or check with QSEED for details.

Colour of Labels

All OECD labels have a black strip at the top with the words OECD and reference to the OECD seed scheme in English and French.

The colour of these shall be pre-basic, white with a violet strip, Basic white, certified first generation blue certified 2nd generation red. Domestic labels are generally green.

Attaching Seals

Metal seals need not be attached to seed bags where certification labels are machine sewn onto the bags with the same stitching that closes the mouth of the bag or where an approved adhesive label is placed across the closure of the bag or container. Seals are to be attached to hand sewn certification seed bags and small lots of basic seed where the label has been reused in domestic situations. Used certification labels are not to be reused for any exported seed.

GROW-ON TESTING

OECD Certification - One part of every sample of basic seed and at least one part of every fourth sample of certified seed may be subject to a grow-on test in the season immediately following receipt of the sample.

Each plot is to be of sufficient size to produce at least 1,000 plants. A comparison is to be made with 1,000 plants of the same parents and hybrid cultivar grown from the standard samples lodged with the Certification Authority.

For compliance with OECD standards, a maximum percentage tolerance of off-types is listed in the respective rules, and is not to be exceeded in the grow-on testing of each seed line.

Domestic Certification grow-on testing may be carried out at the discretion of the Certification Authority.



APPENDIX A Definitions of categories used in certification.

Country of registration of a variety

The country of registration of a variety is the country where the variety is registered on the National Official Catalogue, following satisfactory tests for distinctness, uniformity and stability.

Maintainer

The person or organisation responsible for the maintenance of a variety included in a national list of varieties eligible for certification. The maintainer shall ensure that the variety remains true to type throughout its full life span and in the case of hybrid varieties, that the formula for hybridisation is followed. Maintenance of a variety may be shared.

Variety

An assemblage of cultivated plants which is clearly distinguished by any characters (morphological, physiological, cytological, chemical or others) and which, when reproduced (sexually or asexually), retains its distinguishing characters.

Hybrid Variety

An assemblage of cultivated plants that is clearly distinguishable by any characters (morphological, physiological, cytological, chemical or others) for which the maintainer has specified a particular formula of hybridisation.

Bred Variety

A variety that has been produced by a plant breeder as the result of breeding.

Local Variety

A variety from a defined region of origin that has been shown by official tests to have sufficient uniformity, stability and distinctness to warrant recognition but has not been produced as a result of breeding work.

Open Pollinated Variety

Is an assemblage of cultivated plants which is clearly distinguished by any characters (morphological, physiological, cytological, chemical or other) and which, when reproduced retains its distinguishing characters.

Synthetic Variety

An open pollinated variety obtained from specified elements. It is not homozygous but at genetic equilibrium. The number of generations of certified seed is strictly limited.

Composite Variety

The first generation produced by random mating of a large number of specified parents.

Intervarietal Hybrid

The first generation of a cross between plants grown from Basic seed of two open pollinated varieties.

Inbred Lines

A sufficiently distinct, uniform and stable line, obtained either by artificial self-fertilisation accompanied by selection over several successive generations or by equivalent operations.

- **"A" line** An "A" line is male sterile and is used as a seed parent.
- **"B" line** A "B" line is a male fertile line that is isogenic with the "A" line. It is used as a pollen parent for its multiplication and is capable of maintaining male sterility in the "A" line.
- **Restorer Line** A restorer line has the capability of restoring fertility to a male sterile line when used as a pollen parent.
- **Self Incompatible (SI) line** A male fertile line that is incapable of self-pollination.
- **Self Compatible (SC) Line** A male fertile line that is capable of self-pollination.
- **Cytoplasmic Male Sterility** A factor which occurs in male sterility in the female parent used in the production of hybrid varieties. The factor that is centred in the cytoplasm and is maternally transmitted acts only in the absence of pollen restoring genes and results in pollen abortion.

Types of Hybrid

• Single Cross Hybrid

The first generation of a cross between two inbred lines.

• Double Cross Hybrid

The first generation of a cross between two single cross hybrids.

- **Three way Cross Hybrid**

The first generation of a cross between an inbred line and a single cross hybrid.

- **Top Cross Hybrid**

The first generation of a cross between an inbred line or a single cross hybrid and an open-pollinated or synthetic component.

Parental Material (Also refers to breeders, mother and foundation seed).

It is the smallest unit used by the maintainer to maintain his variety from which all seed of the variety is derived through one or more generations and has a genetic composition accepted by the breeder as a true sample of a cultivar as genetically constituted by the breeder.

Such a cultivar may have resulted from hybridisation, plant introduction or from a selection of diverse germ plasm. The maximum number of generations between breeder's and certified seed is to be limited to the number permitted by the breeder.

Pre-Basic Seed

Is seed derived from a seed increase area sown with breeders or pre - basic seed, and is subject to the supervision of the breeder. It may be at any generation acceptable to the breeder between breeder's seed and basic seed. Use of the term "pre - basic" is limited to the pasture seed certification scheme.