PIRSA

SEED CERTIFICATION MANUAL

August 2022

Government of South Australia

Seed Services Australia is a business unit of South Australian Research and Development Institute (SARDI)

SEED SERVICES AUSTRALIA

Published and Distributed by:

Seed Services Australia

A business unit of the South Australian Research and Development Institute (SARDI) division of Primary Industries & Regions (PIRSA)

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1. INTRODUCTION

1.1 What is seed certification?

Seed certification is an evidentiary and field inspection based process that aims to ensure that the *genetic* identity and purity of a plant cultivar is maintained during multiplication from one generation to the next. Seed certification schemes rely upon a set of documented standards and procedures implemented at each step of the seed production process to protect the varietal identity and purity of a seed lot.

Plants grown from seed of high genetic purity can be expected to look and perform in the manner as originally bred and described by the breeder. This in turn provides users of certified seed with the confidence that the expected advantages of a cultivar can be delivered. Examples of important genetic characteristics include:

- seedling vigour
- insect resistance
- disease resistance
- cold season productivity
- high seed yield
- non seed shattering
- specific grain or seed qualities

To provide consumers with certified seed of acceptable *physical* quality, seed certification schemes usually also apply minimum seed physical standards.

Physical quality standards may include:

- physical purity (that is, the amount of pure seed compared to broken or cracked seed, chaff, straw, dirt, sticks or stones)
- germination capacity
- other crop seeds
- weed seeds

1.2 Seed Certification Schemes in Australia

Seed Certification schemes in Australia have historically been conducted at the State level by specialist Seed Services / Field Inspection units operating within State Government Department of Agriculture &/or Primary Industries agencies.

In the early 1970s Australia become a full participant in the Organisation for Economic Co-operation and Development (OECD) Seed Schemes and before that a Member of the International Seed Testing Association (ISTA).

Australia's membership of these organisations was held by the Commonwealth Government Department of Agriculture / Primary Industries (currently the Department of Agriculture, Fisheries & Forestry) as the National Designated Authority (NDA) with operational responsibilities delegated to the relevant state government agencies – and in the past decade privately owned certification providers - through a Memorandum of Understanding (MOU). Under these arrangements each state based agency fulfilled the functions and responsibilities of a Designated Authority (DA) in conducting the various OECD seed certification schemes and their own domestic seed certification programs.

National co-ordination of the OECD Seed Schemes and domestic seed certification schemes was managed by the Australian Seeds Committee (ASC) comprising representatives from the Commonwealth Government (NDA), state government and privately owned certification agencies and the seed industry.

Participation in the OECD Seed Schemes is viewed as vital by all sectors of the Australian seed industry so as to ensure locally grown certified seed can compete globally for seed sales to OECD and EU countries. It is estimated that in some seasons as much as 50% of Australia's certified seed is exported to these countries and other international destinations.

1.3 Australian Seeds Authority

In June 2002 the above described certification arrangements changed with the establishment of the Australian Seeds Authority (ASA).

Under the new arrangements the Commonwealth Government - with the agreement and support of the majority of the States and the national peak seed industry organisations – withdrew the MOU's with the state based Designated Authorities and delegated under a Licence all responsibilities for Australia's conduct of the OECD Seed Schemes and International Seed Testing Association (ISTA) policy matters to the Australian Seeds Authority (ASA).

ASA is a non-profit, fully incorporated industry managed organisation, comprising equal membership from Australia's two national peak seed industry organisations i.e. Australian Seed Federation (ASF), representing the commercial seed sector, and Grains Council of Australia (GCA) representing seed grower interests. With the demise of the GCA in 2009, Grain Producers Australia (GPA) is now the seed grower body jointly sharing control of ASA. Funding for ASA is primarily achieved through membership fees and a range of fees and charges levied against certified seed production.

To ensure the operational provision of the OECD Seed Schemes and its Australian (Domestic) Seed Certification Scheme to the Australian seed industry, ASA has granted service delivery accreditation to three Certifying Agencies. The accredited Certifying Agencies are not bound by state borders in the provision of their services.

To achieve national uniformity in the delivery of the above seed schemes the Certifying Agencies must conduct each scheme in accordance with the applicable ASA Technical Standard. To ensure compliance to the Technical Standards, ASA requires each Certifying Agency to be independently accredited and audited by the National Association of Testing Authorities (NATA) to the ISO/IEC 17020:2012 Inspection Standard

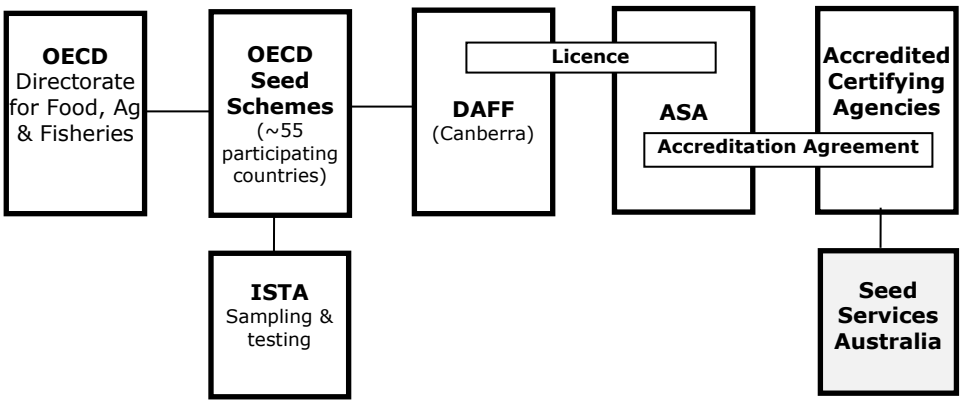

Figure 1. Framework for conducting OECD seed certification schemes in Australia – using Seed Services Australia as an example of an ASA accredited Certifying Agency.

1.4 Seed Services Australia

Seed Services Australia is a business unit of the South Australian Research and Development Institute (SARDI) division of Primary Industries and Regions (PIRSA).

The core charter of Seed Services Australia is to provide internationally accredited seed certification schemes and seed testing services to the Australian seed industry so as to facilitate the trade of quality sowing seed on domestic and international markets. Major customer sectors include seed growers, seed companies, seed processors and domestic and export seed marketers.

Seed Services Australia conducts the following seed schemes:

- OECD certification - based on the Rules and Directives of the Organisation for Economic Co-Operation and Development (OECD) Seed Schemes and the International Seed Testing Association (ISTA).
- Australian Seed Certification Scheme – based on the principles of the OECD Seed Schemes and used essentially for varieties not listed with the OECD or for seed sold on domestic markets only.
- AOSCA certification - based on the rules of the North American Association of Official Seed Certifying Agencies.

Seed Services Australia is accredited by the Australian Seeds Authority to deliver certification schemes under the OECD Seed Schemes certification label and the Australian Seed Certification Scheme domestic certification label. As a Vested (International) Member of AOSCA, Seed Services Australia is directly responsible to this organisation for the conduct of this scheme.

Seed Services Australia is an accredited Member Laboratory of the International Seed Testing Association (ISTA) and is authorised to issue a range of internationally recognised export seed analytical certificates.

Seed Services Australia provides the above schemes and services to its clients on a fully voluntary and commercial basis. Service fees applied by Seed Services Australia are reviewed annually and are based on full cost recovery and user pays principles. Fee schedules are available from the Urrbrae Office of Seed Services Australia.

In addition to applying its own service fees, Seed Services Australia applies and collects the following industry levies and/or charges.

- Australian Seeds Authority (ASA) Fees & Charges.

- RIRDC managed Commonwealth Pasture Seed Levy – remitted to the Levies Revenue Service (DAFF). For further information please visit their web site at http://www.agriculture.gov.au/ag-farm-food/levies/rates/pasture-seeds.

2. DEFINITIONS AND ACRONYMS

AOSCA
Association of Official Seed Certifying Agencies

Applicant
Seed Grower or Seed Company representative with responsibility to apply for seed certification services.

ASA
Australian Seeds Authority

Authorisation
Protocol which recognises the competence of persons to whom certain official activities may be delegated

Authorised Certified (AC) seed
Certified seed, usually of C1 class, which in the absence of basic seed the Certification Authority authorises as a suitable sowing seed line on the basis of genetic purity. Also refer to Limited Generation Seed Scheme.

Authorised inspector
An individual trained and authorised by a Certifying Agency for the purpose of inspecting specified crop types within OECD and domestic seed certification schemes.

Authorised sampler
An individual authorised by an accredited Certifying Agency to draw and submit samples for seed certification purposes. Authorisation is contingent upon the individual successfully completing an ASA-approved seed sampler training course.

Authorised seed processor
An individual or seed processing operation authorised by an accredited Certifying Agency for the purposes of handling, processing, labelling and sampling seed lots certified under an OECD or Australian Seed Certification Scheme label.

Basic seed
Derived from areas sown with Breeders &/or Pre-Basic seed and produced under the co-responsibility of the breeder and the Certifying Agency.

Breeders seed
The nucleus seed (material) grown by the plant breeder.

Certified First Generation seed (C1)
Derived from areas sown with Basic seed.

Certified Second Generation seed (C2)
Derived from areas sown Certified First Generation seed.

Cultivar
Synonymous with variety.

DAFF
Department of Agriculture and Water Resources (Commonwealth Government)

Designated Authority
Authority designated by, and responsible to, the government of a participating country for the purpose of implementing the rules of the OECD Seed Schemes. For Australia, under Licence to DAFF, ASA is the operational Designated Authority for the conduct of the OECD Seed Schemes.

EU
European Union

ISTA
International Seed Testing Association

Limited Generation Seed Scheme
Seed Scheme applying to the production of indistinguishable varieties of *subterranean clover*, *annual medics* and other annual *Trifolium (clover) species* where varietal purity is assured by limiting the number of generations produced from Basic seed or Authorised Certified (AC) sowing seed.

Maintainer
Person or organisation responsible for the maintenance of a variety. Note: the Maintainer is not always responsible for the breeding of a variety.

Non-Pedigree crops
Varieties which are visually identifiable from other varieties of the same species due to unique and/or highly distinguishable markings or characteristics

OECD
Organisation for Economic Co-operation and Development

Off-types
Plants within a variety which display a minor variation in one or more characteristics from that documented in the registered description of the variety eg. minor differences in leaf, flower or stem markings, plant height, flowering time, etc.

Pedigree crops
Varieties which are visually indistinguishable from other varieties of the same species.

Pre-Basic seed
Seed grown from areas sown with breeders seed and ordinarily produced under the supervision of the Breeder in co-operation with the Certifying Agency.

Process
To clean extraneous matter from an unprocessed seed lot.

Seed Grower Declaration
Official document issued by the Certifying Agency for all crops that pass field inspection standards and which is used to notify the Seed Processor that the seed being delivered is of the one variety and certification class.

Seed line (with reference to certified seed)
A homogeneous (uniform) quantity of processed seed identified by a unique reference number and not exceeding the maximum lot size as specified by ISTA.

Seed lot (with reference to certified seed)
Total lot of unprocessed seed (or processed seed stored in bulk prior to final bagging) derived from inspected and accepted registered paddock(s) as specified on the Seed Grower Declaration.

Seed Processor Declaration
Official document submitted to the Certifying Agency by the Authorised Seed Processor in conjunction with the Seed Grower Declaration and official seed sample for final testing and certification. The Seed Processor Declaration advises the seed line number, lot weight and label numbers.

Seed Services Australia
A business unit of SARDI (a Division of Primary Industries & Regions SA) with responsibility for conducting seed industry related service programs, including a comprehensive seed testing laboratory service and seed certification and other varietal quality assurance based seed identity schemes.

Seed Certification Officer
Person employed and trained by the Certifying Agency to conduct various operational aspects of the seed certification program; including field inspections, seed sampling and various audit functions.

SPM
Seed Processors Manual or "Procedure Manual for Processors of Certified Seed". A highly comprehensive ASA controlled document that details the procedures by which authorised Seed Processors are to identify, store, process, sample and label seed lines produced within seed certification schemes.

3. SEED PRODUCTION

3.1 General requirements

3.1.1 Eligibility to participate

Any person or legal entity may apply for seed certification services; however an application may be refused &/or a crop not inspected where:

- it is not economic to inspect the crop due to excessive travelling
- the crop is not reasonably accessible eg. absentee owner / locked gates

Participation in the seed certification scheme is voluntary, but in signing the Application, growers agree to abide by all rules and conditions governing certification and pay all fees in a timely manner. Services to applicants with accounts more than 90 days in arrears may be withdrawn; other restrictions may also apply.

3.1.2 Registered Area Number

Each property producing certified seed is allocated a Registered Area Number (RAN) that is unique to the property. The RAN prefix allocated is usually based on the general regional geographic location of the farm eg. SE (mid – lower South East region of SA), YP (Yorke Peninsula), SV (south – western Victoria), NSW (New South Wales - all regions), TAS (Tasmania – all regions), etc. The RAN remains with the property even if ownership changes.

3.1.3 Farm Plan

It is essential that applicants provide a farm plan.

The importance of the farm plan is to:

- assist the inspector to accurately identify and inspect the correct crop(s) applied for certification
- ensure that all certification documents that display the RAN and Paddock Identification (letter or cipher) for the inspected crop(s) eg. crop inspection report, Grower Declaration, Certificate of Analysis; accurately corresponds with the farm plan for trace-back purposes

The farm plan should ideally be A4 in size and display the whole property, including paddock layout, laneways, gateways, etc. Key landmarks such as windmills, trees, native vegetation areas, powerlines and major adjoining roads should be included. The farm plan need not be to scale; however this may be useful in some cases.

Paddock identification should ideally be made by using letters or names. Paddocks identified by numbers only will be prefixed by a letter to differentiate the inspected crop area from the Registered Area Number eg. "1" = "A1", etc. As an example, for a farm allocated a RAN of SE 838 and for a crop inspected in paddock "A1" the full identification number for the crop will be displayed as "SE 838 A1" on all associated certification documents. Please note where paddock names are used they will be abbreviated to 3 or 4 characters so as to be accommodated by the Seed Services Australia database.

Any changes to a farm plan must be forwarded to Seed Services Australia when next applying for certification field inspection services.

3.2 Applying for inspection services

3.2.1 Certified Seed Crop Application form

To enrol a crop for certification, applicants are required to complete and submit the Seed Crop Application form. This form should be used for all crop species (annuals or perennials) when:

- establishing a new crop
- re-sowing an existing crop, or
- allowing an existing crop to regenerate.

Lodging the Seed Crop Application form will ensure that all necessary inspections required for certification are conducted.

Do not use this form to apply for existing perennial crops (see 3.2.4).

Applying for field inspection services is the responsibility of the applicant. However, each autumn - as an assistance to existing clients - application forms and reminder letters are mailed out to all growers that have had a crop inspected for certification in the previous five calendar years.

3.2.2 New growers

Application forms are available from Seed Services Australia or may be printed from the seed certification section of our website at http://pir.sa.gov.au/consultancy/Seed_services. New growers (anyone who has not grown certified seed in the last five years) are required to apply at least three (3) weeks before sowing any crop for certification purposes.

3.2.3 Existing growers

Existing certified seed growers (who are familiar with the rules) must apply no later than **31 July** or within three (3) weeks of crop sowing or crop emergence for regenerated crops.

3.2.4 Existing perennial crops

Growers with existing perennial crops will be sent an application form listing all existing crops and new season sowings eligible for a pre-harvest certification inspection. This form will be mailed out in **August** for **perennial clovers and grasses**, and **September** for **lucerne** seed crops.

3.2.5 Some exceptions: Clare, Mt. Barker & Woogenellup sub clovers and Hykon rose clover

Applications for these varieties are to be submitted before **30 September** each season.

3.2.6 Certification of Proprietary (PBR) owned or Licensed varieties

Applications for certification of proprietary owned varieties will only be accepted from applicants that hold a valid contract agreement with the proprietary owner or commercial licensee. If requested by the proprietary owner, Seed Services Australia will provide full disclosure of all certification related records and information associated with the production of their varieties eg. field inspection reports, Seed Grower &/or Seed Processor declarations, seed testing results, certificates of analysis, etc. Additional fees may apply for the provision of these services where the Proprietary Owner is not the invoiced client.

3.2.7 Late application

Late applications may incur a late penalty fee and will only be accepted if the crop is determined to be at the appropriate growth stage for inspection and that inspections have not been completed in the region concerned.

3.2.8 Notice of withdrawal

Once a crop is entered for certification it is automatically scheduled for all necessary inspections. To withdraw a crop from certification, applicants must advise Seed Services Australia in writing. If this advice is not received at least five (5) working days prior to the day of inspection a penalty fee (equivalent to the late application fee) will apply, unless other crop inspections are scheduled to be conducted for the applicant on the same or nearby property (eg. within five kilometres) for that day. Any inspections that are conducted on a crop where insufficient or no notice of withdrawal has been given will be charged at the applicable fee per hectare.

3.3 Selecting a suitable paddock

3.3.1 Match the paddock to the seed crop

Refer to the individual Crop Standards for the species to be grown. For species not listed contact Seed Services Australia.

Ensure the paddock meets the criteria described in the previous paddock history and isolation sections.

For areas intended to produce **Pre-Basic** or **Basic** seed of a **pasture species** variety, check with Seed Services Australia for the applicable previous paddock history requirements and whether an unsown strip requirement applies. In general, previous paddock history requirements are usually one to two calendar years greater than those applying for crops producing certified classes of seed.

Carefully consider potential weed hazards in relation to the crop species being grown. Production areas showing evidence of prohibited &/or undesirable weed species or with a known history of such weeds - particularly those that produce seeds that will be difficult to separate from the crop seed to be grown - should be excluded to avoid the possibility of crop rejection at inspection or during seed analysis. Please note that for proprietary owned varieties, licensees may apply their own higher standards (via contract agreements) in regard of seed crops &/or processed seed lots found to contain prohibited and/or commercially undesirable weed species.

3.4 Sowing

3.4.1 Varieties eligible for OECD and Australian Seed Certification Scheme certification

For a variety to be eligible to be certified under an OECD and /or Australian Seed Certification Scheme label it must be listed in the ASA document titled "National List of Plant Varieties Eligible for Seed Certification in Australia".

For certification of varieties listed as eligible by the OECD Seed Schemes but not listed in the above ASA document please contact Seed Services Australia and/or the Chief Executive of the Australian Seeds Authority.

The criteria for listing a new or existing variety is set out in the ASA document entitled "Conditions for Acceptance of Plant Varieties into Seed Certification Schemes conducted in Australia" (see **Appendix 9.1**); using the ASA form "Application for Acceptance of a Plant Variety into Seed Certification Schemes in Australia" (see **Appendix 9.2**).

3.4.2 Varieties eligible for AOSCA certification

For crop species and varieties eligible for certification under an AOSCA label issued by Seed Services Australia contact Seed Services Australia.

3.4.3 Sowing Seed

Refer to the individual Crop Standards to check for the correct sowing seed and/or certification generation or class for the crop to be grown.

In general terms the following applies:

For most crop species and varieties: Basic seed is produced from crops sown with Breeders and/or Pre-Basic seed. First Generation (C1) certified seed is produced from crops sown with Basic seed. Second Generation (C2) certified seed is ordinarily produced from crops sown with First Generation (C1); but for some highly self-pollinated annual species 'Mixed' Generation (C2) certified seed may be produced from crops sown with an Authorised Certified (AC) sowing seed line approved by an accredited Certifying Agency.

In the demonstrated absence of Basic seed, the Chief Executive of the Australian Seeds Authority may in consultation with the Maintainer approve a variation to the Maintenance Plan for the variety being grown.

For a small number of visually identifiable varieties: The use of certified seed is not mandatory, but growers are strongly recommended to use a certified seed line with the best known genetic purity available. Seed Services Australia and/or other Certifying Agencies may be able to provide this advice.

3.4.4 Sowing machinery hygiene

Sowing machinery, and related seed transfer equipment, must be thoroughly cleaned before use to ensure there is no contamination risk to the sowing seed or the seed crop.

A Seed Certification Officer may inspect machinery prior to sowing:

- for crops sown to produce Pre-Basic or Basic seed; especially by new growers
- as an audit check on any grower participating in the certification scheme

3.4.5 Sowing crops to produce Pre-Basic and/or Basic seed

Notify Seed Services Australia at least five (5) working days before sowing any crop intended to produce **Pre-Basic** or **Basic** seed. In some special cases it may be required for a Seed Certification Officer to be present during the sowing of such crops.

3.4.6 Over sowing perennial crops

Over sowing perennial seed crops, with the exception of Hunter River lucerne is not permitted except:

- where a seedling crop has failed to establish. In this circumstance, the crop may be over sown or re-sown in the year of sowing or in the season immediately following the first year of establishment, or
- where the area of sowing within an existing perennial seed crop is both limited and defined and there are no existing mature plants of the same species in the area to be sown

In both of the cases above the certification generation or class of seed sown must be the same or higher than was initially sown.

Contact Seed Services Australia for approval to re-sow or over-sow a perennial seed crop as described in both examples above; including Hunter River lucerne seed crops.

Note: No approval is required when over-sowing lucerne seed crops with cereals.

3.4.7 Sowing seed labels

Forward sowing seed labels - and completed Seed Crop Application form - to Seed Services Australia by **31 July** or within three (3) weeks of sowing. Sowing seed labels should be bundled together and identified by variety name, line number and date of sowing.

3.5 Crop inspections

3.5.1 Seedling inspection

Submitting the Seed Crop Application form ensures that all necessary crop inspections are conducted, including a seedling inspection if required. Refer to the individual Crop Standards for more specific information about the requirement for a seedling inspection for the crop species and/or certification generation or class of seed being grown. In general:

- cereal, canola and pulse crops **do not** require a seedling inspection irrespective of the certification generation or class of seed being grown.
- new sown annual pasture crops (eg. clovers, medics and vetch) producing First Generation (C1), Second Generation (C2) or Mixed Generation (C2) seed **do not** require a seedling inspection – provided an appropriate unsown strip is left in the crop (Refer to the individual Crop Standards for the crop species being grown).
- new sown annual pasture crops (eg. clovers, medics and vetch) producing **Pre-Basic** or **Basic** seed **may require** a seedling inspection dependent on the previous cropping history of the production area.
- All new sown crops of perennial species (eg. lucerne; white, red and strawberry clovers; phalaris; cocksfoot; perennial and Italian ryegrasses; tall fescue; tall wheat grass; etc) **require** a seedling inspection irrespective of the certification generation or class of seed being grown.

3.5.2 Pre-harvest inspection

All eligible crops grown to produce seed require a pre-harvest inspection. The pre-harvest inspection for most crop species is conducted during the flowering, heading and/or early seed setting period. Inspections may be delayed for some wheat varieties where chaff colour is an important identification characteristic.

If varietal purity cannot be accurately assessed because the crop is:

- severely lodged, diseased or herbicide affected,
- obscured by a cover crop or weeds, or
- stunted or poorly grown,

the crop may be rejected from certification.

The Field Inspector assesses and records the following during the pre-harvest inspection:

- genetic purity
  - numbers of off-types
  - numbers of other varieties
  - presence of seed heads derived from volunteer seedlings
  - number of other similar crop species
- isolation
- presence of weeds (including on check banks, channels and fence lines)
- presence of diseases likely to carry over on the crop seed being grown
- plant density of the crop
- potential seed yield

Refer to the individual Crop Standards for more specific information about the varietal purity and/or other field standards applicable for the crop

species being grown. If the species is not listed in this manual, contact Seed Services Australia.

Applicants receive a copy of all inspection reports conducted on their property.

For proprietary owned varieties, where requested and at a fee, inspection reports will also be provided to the variety owner and/or licensee.

3.5.3 Registration inspection

Perennial crops are inspected each season (whether the crop is to be harvested for certified seed or not) to ensure that varietal purity of the crop has not be affected by either crop thinning (plant deaths) or thickening due to over-sowing or self seeding. Registration inspections occur approximately at the same time of the season as pre–harvest inspections.

3.5.4 Isolation

All crops grown for certified seed – particularly those crop species capable of cross pollinating - must be isolated from other crops of the same species by a minimum prescribed distance. Refer to the individual Crop Standards for the applicable isolation distance.

The major factor determining the isolation distance for a crop is its method of pollination i.e. wind-borne or insect pollinated. Therefore, isolation distances will vary depending upon such factors as the crop species and generation or class of certified seed being grown; as well as the size of the crop. In general, the isolation distance is **doubled** for crops producing **Pre-Basic** or **Basic** seed.

For isolation distances between crops of the same variety producing different generations or classes of certified seed, contact Seed Services Australia.

For wind-borne pollinated species (eg. most perennial grasses) any part of the crop growing within the minimum prescribed isolation distance (i.e. the isolation zone) must be cut for hay or kept mown during the flowering period.

For insect pollinated species (eg. lucerne, plus most annual and perennial aerial flowering clovers) the isolation zone must either be managed as above or left and harvested as uncertified seed provided:

- the uncertified area of the crop is clearly pegged or defined
- the uncertified area of the crop is harvested last

Please note Seed Services Australia may require the applicant to provide full details and evidence of any uncertified seed harvested from an isolation zone. Failure to provide this information in a timely manner may result in all seed lines grown from the crop being withheld from final certification.

3.5.5 Weeds in Crops

Crops or production areas found to contain prohibited weeds (as specified by the relevant weeds legislation in the State &/or Territory of production) **may** be rejected from certification. Where a crop is rejected a grower may apply for a re-inspection provided the offending prohibited weeds have been destroyed or removed. Refer to 3.5.8.

An exception to this rule may apply where the Field Inspector assesses there is essentially **no** likelihood of the processed crop seed being contaminated by the prohibited weed seed due to significant differences in seed size and/or other agronomic factors that may apply. For example, the prohibited weed may not reproduce via seed or certain growth characteristics of the crop and prohibited weed species may differ markedly eg. significant differences in height, time of flowering and/or seed production.

In accepting crops for certification under the above special conditions, Seed Services Australia takes no responsibly, financially or otherwise, should the indentified prohibited weed seed – or the seeds of any other prohibited weeds – be subsequently found to be present in the processed seed lot; whether or not the prohibited weed seed was detected during seed analysis.

Prohibited weeds (seeds) are listed in **Appendix 9.3.**

Note:

- Prohibited plants rouged by the seed grower must be removed from the production area.
- Crops containing excessive numbers of any weeds that may bring the certification scheme into disrepute may be rejected from certification.

3.5.6 Diseases in crops

Crops affected by certain seed borne diseases may be rejected from certification. Refer to the individual Crop Standards for more information about disease standards.

3.5.7 Crops accepted for certification

Following a successful pre harvest crop inspection the applicant is sent:

- a copy of the field inspection report
- a Seed Grower Declaration (a form that lists the crop(s) of the same variety and certification class accepted for certification)
- unprocessed seed labels for that crop

The signed and completed Seed Grower Declaration must be submitted to the authorised Seed Processor and should accompany the first delivery. The unprocessed seed labels may be used to identify each subsequent load of seed delivered to the seed processor. Only seed from the crop(s) listed on the Seed Grower Declaration is permitted to be harvested, stored and delivered to the seed processor for cleaning i.e. delivered unprocessed seed must be of the same variety and certification class.

3.5.8 Crops rejected from certification

If the cause of crop rejection can be corrected, the applicant may apply for a re-inspection of the crop, for which full inspection fees will apply. Re-inspections of rejected crops will only occur if they do not conflict with the remainder of the planned inspection program. Additional travel related charges may also apply.

3.6 Harvesting certified seed

3.6.1 Pre-Basic and Basic seed

Seed Services Australia must be notified at least five (5) working days before harvesting any crops eligible to produce **Pre-Basic** or **Basic** seed; unless alternate notification arrangements have been agreed to prior to harvest between Seed Services Australia and the seed grower &/or the proprietary owner for the variety. A Seed Certification Officer may arrange to inspect harvesting machinery, seed transfer equipment and storage containers prior to harvest.

3.6.2 Harvesting machinery hygiene

Harvesting machinery and related seed transfer equipment must be cleaned and checked prior to use to ensure there is no risk of contamination to the seed being harvested.

3.6.3 Storing unprocessed seed on farm

Clearly identify or mark all field bins storing the harvested seed with the appropriate unprocessed seed label (or similar device) before the seed leaves the paddock. Similarly identify all on-farm silos and storage containers.

3.6.4 Separate harvesting and storage of seed to meet EU import requirements and/or other phytosanitary or quality objectives

Crops of the same variety and certification class from different paddocks are usually grouped together on the one Seed Grower Declaration form. If there is a need to keep the seed from one or more of these crops separated for certification and/or marketing purposes, the seed must be harvested and stored separately, and the paddock letter(s) clearly identified on the Seed Grower Declaration form and/or unprocessed seed labels. Alternatively, the grower may request Seed Services Australia to issue a revised Seed Grower Declaration form and unprocessed seed labels.

3.7 Transporting certified seed

3.7.1 Identification of seed during transport

Identify each load of seed delivered to the authorised Seed Processor with an unprocessed seed label or similar. Ensure the signed and completed Seed Grower Declaration form accompanies the first load of seed delivered to the seed processor.

Where unprocessed seed labels have been altered to identify that seed from a particular crop(s) has been harvested and stored separately; bring this to the attention of the seed processor so that this may be documented on the Seed Processor Declaration form and forwarded to Seed Services Australia with the official seed sample.

3.7.2 Transport hygiene

Ensure all truck bins and/or containers used to transfer unprocessed seed are thoroughly clean and free of contaminating material prior to loading.

4. SEED PROCESSING

4.1 Authorised Seed Processors

Only seed processors with a current authorisation agreement with Seed Services Australia (or other ASA accredited Certifying Agency) are eligible to process, label and sample certified seed.

Authorised Seed Processors agree to follow the procedures and standards as documented in the "Procedure Manual for Processors of Certified Seed" (also referred to as the Seed Processors Manual or SPM). Authorised Seed Processors are in general audited annually to ensure compliance.

4.2 Summary Procedures for processing certified seed

Procedures for processing and handling certified seed are described briefly in the following section and are cross referenced to the more detailed procedures in the Seed Processors Manual.

4.2.1 Seed delivery

The first load of unprocessed seed lot delivered to the seed processor is to be accompanied by the relevant Seed Grower Declaration form. Each subsequent load of seed delivered under the same Seed Grower Declaration should be identified by an unprocessed seed label or similar. Refer: SPM 6.1

4.2.2 Storing unprocessed seed

Unprocessed seed must be stored in clean, numbered storage containers. A permanent record of these storage containers and their contents (i.e. identity of the unprocessed seed lot) must be kept at all times for audit and/or trace back purposes. Refer: SPM 6.2

4.2.3 Machine clean down

Seed Processors must document a procedure for cleaning down their processing plant to prevent seed contamination. Records must show that this procedure was followed before processing certified seed. Refer: SPM 6.3

4.2.4 Sampling and Uniformity

Seed lines must be processed to achieve uniformity from the start to finish of each line. Each line of certified seed must be sampled according to documented procedures by an Authorised Sampler or a person trained and delegated by the Authorised Sampler to draw primary samples during processing. Refer: SPM 6.4

4.2.5 Packaging and labelling

Certified seed must be packed in new sacks and/or containers; with the appropriate certification label affixed. All sacks in a certified seed line must be of the same capacity unless otherwise authorised by Seed Services Australia. Only OECD listed varieties are eligible for OECD labelling; non-OECD listed varieties must be tagged with domestic labels of the appropriate certification class. All field crop varieties, irrespective if the variety is OECD listed, are to be tagged with domestic labels unless otherwise authorised by Seed Services Australia. Refer: SPM 6.5

4.2.6 Declaration by Seed Processor

For each line of processed certified seed, the seed processor must complete a Seed Processor Declaration form. Both the Seed Processor Declaration and the Seed Grower Declaration must be submitted to Seed Services Australia together with the official seed sample for seed analysis. Refer: SPM 6.6

4.2.7 Storing seed under bond until official release

A processed line of certified seed must be held under bond at the seed processor's premises until the seed line is officially released, that is, until such time all analytical testing is completed and the official certified seed certificate of analysis is issued.

Where access to Seeds Online is available, a processed line of certified seed is deemed to be officially released when the completed result for the seed line is displayed as 'Accepted'.

To move any seed line held under bond authorisation must first be granted by Seed Services Australia. Application to move a seed line held under bond may be made by the seed processor, seed grower and/or the proprietary owner or licensee of the variety. Refer: SPM 6.7

4.2.8 Reprocessing of seed lots

A certified seed line may be reprocessed and a new official sample submitted for certification except in the case of a seed line rejected due to the presence of prohibited weed seeds, where approval to reprocess must first be given by Seed Services Australia. Refer: SPMs 7.1 & 7.7

4.2.9 Preliminary certification of seed in bulk

Processed seed from more than one Seed Grower Declaration (i.e. of the same variety and certification class) may be stored in bulk prior to bagging off and final certification. A preliminary certificate of analysis will be issued for each bulk seed lot which will state **'Preliminary Result - Certification Not Final'**. As the bulk seed lot size may exceed the ISTA lot size for the species cleaned, the seed analysis result for such seed lines should be regarded as indicative of the general physical quality of the bulk lot only, and may differ from the official certified seed analysis result issued on the finally bagged and tested (ISTA lot size compliant) seed line.

A seed line issued under a **'Preliminary Result - Certification Not Final'** certificate of analysis must **at all times** remain held under bond on the seed processor's premises until such time as a final certified seed certificate of analysis is issued. This oftentimes follows the incorporation of seed from a preliminary certified bulk lot into a blended seed line.

Under certain limited circumstances approval may be granted by the Seed Services Australia, to move or transport a preliminary certified bulk seed line to another authorised seed processing works or other approved location.
Refer: SPM 7.2

4.2.10 Submitting blended seed lots for certification

Processed seed of the same variety and class may be blended and submitted for certification. Refer: SPM 7.3

4.2.11 Releasing seed as bulk

Only seed of broad acre field crop species is eligible for final certification and sale in bulk (lots). Certain records are required to be kept for each sale of bulk seed.
Refer: SPM 7.4

4.2.12 Rebagging seed

New labels must be used when re-bagging a certified seed line; with the original labels retained by the seed processor for audit purposes. Advice of the new label numbers - using the required form - must be provided to Seed Services Australia within five (5) working days of the re-bagging exercise. Refer: SPM 7.5

4.2.13 Provisionally rejected seed

Seed lines that are provisionally rejected from certification pending an improvement in germination capacity may be re-sampled and submitted for re-test. It is recommended that new season samples not be re-submitted until at least six (6) weeks after the provisional rejection certificate is issued. Refer: SPM 7.6

4.2.14 Outright Rejected Seed

Seed that is rejected from certification may be sold as commercial or uncertified seed **provided** the certification label above the sowing line is removed from the bag or container.

Where a seed line is rejected due to the presence of a prohibited weed seed it is the owner's responsibility and obligation to abide by all relevant and applicable noxious weed legislation requirements pertaining to the state or territory of production and/or intended sale.

Seed rejected from certification may be reprocessed and a new sample submitted for certification **except** in the case of seed rejected due to the presence of prohibited seeds, where prior approval to reprocess the seed lot must be given by Seed Services Australia. Refer: SPM 7.7

4.2.15 Basic and Pre-Basic seed

To process Basic and Pre-Basic seed a seed processor requires a special level of authorisation and must follow a documented machine clean down procedure that has been pre-approved by Seed Services Australia. Labels for Basic and Pre-Basic seed lines (certified under OECD and domestic seed schemes) must be pre-ordered from Seed Services Australia using the specified form.
Ref: SPM 7.8

5. TESTING AND RELEASE OF CERTIFIED SEED

5.1 Laboratory analysis

The official sample (drawn during seed processing) is submitted to Seed Services Australia for analysis by the authorised Seed Processor. The analysis determines the physical purity and germination capacity or percentage of the sample. Due to the procedures used to draw the official sample the test information can be used to make reliable inferences about the overall physical quality of the seed line. The results are published on the official certified seed certificate of analysis.

5.1.1 Purity analysis

The purity analysis determines the composition of the sample by percentage weight.

The components measured are:

- **pure seed** - the seed of the species being certified or tested
- **other seeds** - seeds of any plant species, other than the pure seed
- **inert matter** - all material not included in the pure seed fraction or other seeds

5.1.2 Prohibited seeds

Under state or territory legislation seed lots containing prohibited or noxious seeds ordinarily cannot be sold. Certified seed lines found to contain prohibited seeds will be rejected from certification. However, in selling or offering seed for sale – certified or otherwise – it is ultimately the responsibility of the seed reseller to meet all legislative requirements that may be applicable.

Under certain limited circumstances – and following application by the owner of the seed lot – Seed Services Australia may release a rejected seed line containing a prohibited seed for "Export Only" sale.

Weed seeds prohibited in seed lines certified by Seed Services Australia are listed in **Appendix 9.3**.

5.1.3 Germination analysis

The germination test measures the emergence and development of a seedling to a stage where the essential structures show its ability to develop into a healthy plant under favourable field conditions.

Germination results are shown as percentages of:

- **normal seedlings** - seedlings capable of continued development into normal healthy plants given favourable growing conditions
- **hard seeds** - seeds that remain hard at the end of a test period due to an inability to absorb water
- **fresh seeds** - seeds that absorb water and swell but fail to germinate within the permitted test period. Fresh seeds have the potential to develop into a normal seedling but this cannot be presumed
- **abnormal seedlings** - seeds that germinate, but exhibit some physical deformity or irregularity in plant structures that prevents normal development
- **dead seeds** – seeds that are dead and incapable of germination

5.2 Application of National Seed Quality Standards

For Pre-Basic, Basic and Certified classes of seed, final certification (i.e. acceptance or rejection) is dependent on the seed line meeting the applicable National Seed Quality Standards as documented by the Australian Seed Authority.

However, for proprietary owned varieties, the cultivar owner or licensee may specify its own physical seed standards in the Maintenance Plan for the variety. Acceptance of the varied standards is subject to approval by ASA.

5.3 Certificate of Analysis

Following the completion of seed testing and the application of the national seed quality standards, an official certified seed certificate of analysis is issued and forwarded to the seed grower, seed processor and proprietary owner &/or licensee (if requested).

5.4 Seed legislation and/or Code of Practice requirements

Seed resellers are responsible for ensuring certified seed is sold in accordance with state or territory seed legislation (where still applicable) and/or the Australian Seed Federation (ASF) National Code of Practice for Seed Labelling and Marketing (www.asf.asn.au). In general terms, the seed reseller must ensure information about the physical quality of the seed lot is stated on the label attached to the bag or printed directly on the bag or container.

5.5 Online analytical inquiries

5.5.1 Access to test results

Clients with a direct interest in a particular test result (seed line or sample) may apply to Seed Services Australia for a username and password to access their analytical test results via our web based application **Seeds Online.** There is also public access to certain test result information where the line number and variety name is known. For more information about Seeds Online visit our website at http://pir.sa.gov.au/consultancy/Seed_services.

5.5.2 Test results available to the public

Test results for a certified seed line are available to the public if:

- the sample passes all standards and is accepted for certification
- the owner of the test result has permitted public access

The owner of the test result is:

- the cultivar owner or licensee for proprietary varieties
- the seed grower for public varieties

Access to these test results is only through entry of the full line number and the first three letters of the variety name.

Important Note: The owner (refer above) of the test result can change the public access flag so that the result is **not available** for public online viewing. This can be changed by the owner via the Seeds Online application, or by the owner contacting Seed Services Australia.

6. VERIFICATION ACTIVITIES

6.1 Grow-on testing

At the certification inspection, a seed crop (usually a subterranean clover or annual medic variety) may be considered marginal for varietal purity. In such cases the Field Inspector may recommend that the crop be accept subject to a grow-on test.

If the grow-on test indicates excess contamination of other varieties of the same species (i.e. greater than 5% in the example of the above species) the seed line is rejected from certification.

In some cases a crop may be accepted in the field with varietal contamination of less than 5%, but the subsequent laboratory analysis may reveal additional varietal contamination (eg. black subterranean clover seed in a white seeded variety). In these cases, the variety contamination detected by analysis is added to the variety contamination detected in the field.

If the combined % off-type exceeds the permitted standard (eg. 5% for subterranean clover &/or annual medic varieties) the seed lot will be rejected from certification or upon application to Seed Services Australia the seed lot may – at the cost of the applicant - be scheduled for a grow-on test.

Note: Grow-on test results may take between 3 to 6 months to finalise from time of sample receipt depending on the species and the varietal contaminants involved.

6.2 Pre Control testing

To check that Breeders, Pre-Basic and Basic seed lots are true to type and that the maintenance of the variety over a period of years has not led to any "shift" in expression of its distinguishing characters. Objective measurements of individual plants are made in comparison with plants derived from breeders or other authenticated seed of the variety.

6.3 Post Control testing

Conducted post certification on a portion of seed drawn from the official sample submitted for final certification, these tests check that certified seed lots are true to description and are not mixed with other varieties or otherwise contaminated during harvest and/or seed processing. Post control tests are primarily conducted as an audit check on the overall seed certification process and its ability to ensure high standards of varietal purity are maintained.

7. CONTACT DIRECTORY

Staff may be contacted by telephone or by using the general Seed Services Australia e-mail address. Office visits by prior arrangement are welcomed.

For information contact the person indicated:

Seed Certification policy, service fees, grievances	**Manager, Seed Services Australia Urrbrae**
Seed Certification rules & management; Authorisation arrangements for processors, samplers & field inspectors; Phytosanitary declarations	**Seed Certification Supervisor, Urrbrae**
Seed Certification certificates, test results, requests for labels and other consumables, invoice enquiries, online services	**Administration Officer, Seeds Urrbrae**
Payment enquiries	**Shared Services SA** Ph: (08) 8226 0295
Crop inspections & OIC sampling (South East region of SA and western Victoria); Post Controls	**Senior Seed Certification Officer Struan** If out of office, call Mob: 0428 813 097

For general information about seed certification, seed testing or other services offered by Seed Services Australia visit our website at http://pir.sa.gov.au/consultancy/Seed_services.

Urrbrae Office

Ph: (08) 8303 9549 Fax: (08) 8303 9508
Email: PIRSA.Seeds@sa.gov.au

Postal address:
Seed Services Australia
Primary Industries & Regions SA
GPO Box 1671
Adelaide SA 5001

Location:
Plant Research Centre
Hartley Grove
Urrbrae (within Waite Institute Precinct)

Struan Office

Ph: (08) 8762 9131 Fax: (08) 8762 9136

Postal address:
Seed Services Australia - Struan
Primary Industries & Regions SA
PO Box 618
Naracoorte SA 5271

8. INDIVIDUAL CROP STANDARDS

8.1 Pasture Species

Annual medic – Distinguishable varieties
Annual medic – Indistinguishable varieties
Annual Ryegrass
Arrowleaf clover
Balansa clover
Berseem clover
Biserrula
Bladder clover
Cocksfoot
Crimson clover
Gland clover
Italian Ryegrass
Lucerne
Perennial Ryegrass
Persian clover
Phalaris
Purple Clover
Red clover
Rose clover
Serradella
Strawberry clover
Subterranean clover – Distinguishable varieties
Subterranean clover – Indistinguishable varieties
Sulla
Tall fescue
Tall wheat grass
Vetch
White clover

Note:

All individual Crop Standards are to be read in conjunction with the general rules for certification as documented in Sections 3 – 6 of this Manual.

Paddock History:
Unless otherwise stated previous paddock history requirements apply to crops producing certified classes of seed only. For paddock history requirements of higher classes of seed contact the Manager (Refer to 3.3.1).

Cultivar & Species Purity Standards
These standards apply at the pre harvest inspection only.

National Seed Quality Standards:
These standards apply to certified classes of seed only. For standards applying to higher classes of seed contact the Manager (Refer to 5.2).

ANNUAL MEDIC *(Medicago sp)* - DISTINGUISHABLE VARIETIES

Varieties eligible

Jemalong barrel medic

Sowing Seed

No specific class of sowing seed is required; however the use of a seed line approved by Seed Services Australia is recommended.

Paddock History

Land should not have grown or been sown to any other variety of barrel medic in the previous four (4) years (unless it was the same variety) as the crop is likely to be rejected due to excess contamination by other varieties.

Isolation

Production areas must be separated from other varieties of annual medic by at least a three (3) metre strip (free of annual medic plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Pre-harvest inspection

Classes

C2 only

Crop Standards

Variety Purity:

Certified	95.0%	(minimum)

Seed Quality Standards

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	
Maximum Other Seeds (% by mass)	2.0%	*of which no single species (other than burr medic) shall be greater than 0.5%.*

ANNUAL MEDIC *(Medicago sp)* - INDISTINGUISHABLE VARIETIES

Varieties eligible

All varieties of annual medic species except Jemalong barrel medic

Sowing Seed

Basic seed
AC1 seed (min. 99% variety purity) or
AC2 seed (min. 98% variety purity)

Paddock History

Land must not have grown or been sown to annual medic in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification. There is no requirement to maintain the unsown strip in the years following the initial sowing.

Isolation

Production areas must be separated from other varieties of annual medic by at least a three (3) metre strip (free of annual medic plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of four harvests of certified seed is permitted from Basic seed (or crops established with AC seed). The number of generations may be extended where the crop is likely to continue to meet certification standards.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 (AC) seed or from crops produced in the second or subsequent years via self seeding or by over-sowing with Basic or Authorised Certified (AC) seed

Crop Standards

Variety Purity:

Basic	99.5%	(minimum)
Certified	95.0%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	70.0%	
Maximum Other Seeds (% by mass)	0.2%	Nominated species Burr medic (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	
Maximum Other Seeds (% by mass)	2.0%	of which no single species (other than burr medic) shall be greater than 0.5%.

ANNUAL RYEGRASS *(Lolium rigidum)*

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to any *Lolium* species in the previous two (2) years; unless the paddock produced Basic class seed of the same variety in the preceding season - in which case production of one further generation of certified class seed may be permitted. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less, double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 class crops)

Pre-harvest inspection

Classes

C1: from new areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *Lolium rigidum*	1 per 30 m²	1 per 10 m²
Plants of other *Lolium* species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 50 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure seed (% by mass)	99.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seed)
Maximum Other Seed (% by mass)	0.3%	Nominated species (see Table 1 & Note 3)

Certified Class

Minimum Pure Seed (% by mass)	97.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seed)
Maximum Other Seeds (% by mass)	1.0%	

ARROWLEAF CLOVER *(Trifolium vesiculosum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to arrowleaf clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of three (3) harvests of certified seed is permitted from Basic seed – provided satisfactory varietal purity is maintained.

Classes

C1: from new areas sown with Basic seed

C2: from new crops sown with C1 seed or from crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *arrowleaf clover*	1 per 30 m²	1 per 10 m²
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	60.0%	
Maximum Other Seeds (% by mass)	1.0%	Nominated species – other Trifolium spp. (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	60.0%
Maximum Other Seeds (% by mass)	1.0%

BALANSA CLOVER *(Trifolium balansae)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to balansa clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of four (4) harvests of certified seed is permitted from Basic seed – provided satisfactory varietal purity is maintained.

Classes

C1: from new areas sown with Basic seed

C2: from new area sown with C1 seed or from crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *balansa clover*	1 per 30 m²	1 per 10 m²
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	65.0%	
Maximum Other Seeds (% by mass)	0.2%	Nominated species – other Trifolium spp. (See Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	65.0%
Maximum Other Seeds (% by mass)	1.0%

BERSEEM CLOVER *(Trifolium alexandrinum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to berseem clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of four (4) harvests of certified seed is permitted from Basic seed – provided satisfactory varietal purity is maintained.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 seed or from crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *berseem clover*	1 per 30 m²	1 per 10 m²
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	80.0%	
Maximum Other Seeds (% by mass)	0.2%	Nominated species – other Trifolium spp. (See Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	80.0%	
Maximum Other Seeds (% by mass)	1.0%	

BISERRULA *(Biserrula pelecinus)*

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to biserrula in the previous two (2) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

Isolation

Production areas must be separated from other varieties of biserrula by a three (3) metre strip (free of biserrula plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Seedling inspection
Pre-harvest inspection

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety Purity:

Basic	99.5%	(minimum)
Certified	95.0%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	70.0%
Maximum Other Seeds (% by mass)	0.5%

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	70.0%
Maximum Other Seeds (% by mass)	0.5%

BLADDER CLOVER *(Trifolium spumosum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to balansa clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

Production areas must be separated from other varieties of subterranean clover by at least a three (3) metre strip (free of subterranean clover plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of four harvests of certified seed is permitted from Basic seed (or crops established with AC seed). The number of generations may be extended where the crop is likely to continue to meet certification standards.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 (AC1 or AC2) seed or from crops produced in the second or subsequent years via self seeding or by over-sowing with Basic or Authorised Certified (AC) seed

Crop Standards

Varietal Purity

Basic	99.5%	(minimum)
Certified	95.0%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	1.0%	Nominated species – other Trifolium spp. (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	1.0%	

COCKSFOOT *(Dactylis glomerata)*

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to cocksfoot in the previous two (2) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

New crops at the seedling inspection containing mature or volunteer cocksfoot plants will be rejected from certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

Basic: three (3) years (maximum)
Certified: seven (7) years (maximum)

Where Basic stands are down-graded, a further four (4) years production of certified class seed is permitted.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *cocksfoot*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	90.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seed)
Maximum Other Seeds (% by mass)	0.3%	Nominated species (see Table 1 & Note 3)

Certified Class

Minimum Pure Seed (% by mass)	90.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seed)
Maximum Other Seeds (% by mass)	3.0%	of which no more than 1.0% shall be seeds other than Lolium sp

CRIMSON CLOVER *(Trifolium incarnatum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to crimson clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of two (2) harvests of certified seed is permitted from basic seed.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 seed or crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *crimson clover*	1 per 30 m²	1 per 10 m²
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	65.0%	
Maximum Other Seeds (% by mass)	1.0%	Nominated species – other Trifolium spp. (See note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	65.0%
Maximum Other Seeds (% by mass)	1.0%

GLAND CLOVER *(Trifolium glanduliferum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to gland clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections Required

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of three (3) harvests of certified seed is permitted from Basic seed – provided satisfactory varietal purity is maintained.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 seed or from crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *gland clover*	1 per 30 m²	1 per 10 m²
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	65.0%	
Maximum Other Seeds (% by mass)	1.0%	Nominated species – other Trifolium spp. (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	65.0%
Maximum Other Seeds (% by mass)	1.0%

ITALIAN RYEGRASS *(Lolium multiflorum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to any *Lolium* species in the previous two (2) years; unless the paddock produced Basic class seed of the same variety in the preceding season - in which case production of one further generation of certified class seed may be permitted.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less, double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of harvests

Basic: one (1) harvest only

Certified: Maximum of two (2) consecutive harvests from the one planting provided satisfactory varietal purity is maintained.

Classes

C1: from new areas sown with Basic seed

C2: from new crops sown with C1 seed or from crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *Lolium multiflorum*	1 per 30 m²	1 per 10 m²
Plants of other *Lolium* species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 50 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated see)
Maximum Other Seeds (% by mass)	0.3%	Nominated species (see Table 1 & Note 3)

Certified Class

Minimum Pure Seed (% by mass)	97.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated see)
Maximum Other Seeds (% by mass)	1.0%	

LUCERNE *(Medicago sativa)*

Sowing Seed

Basic seed (see Classes).

Hunter River: Basic seed or Authorised Certified (AC) seed

Paddock History

Land must not have grown or been sown to lucerne in the previous three (3) seasons; unless it was the same variety and certification class where a minimum one (1) year break between crops is required. For EU eligibility a three (3) calendar year break is required.

Any new sown crop producing basic seed or changing variety or class from the previous lucerne crops are allowed a maximum of one mature plant per 500 square metres. If the new sown crop is of the same variety and class as the previous lucerne crop there is a maximum of one mature plant per 10 square metres.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

For crops producing certified class seed a minimum isolation distance of three (3) metres, or a physical barrier (eg fence line, channel or check bank), is permitted if the area of crop growing within the 50 metre isolation zone (ie the first 50 metres of crop growing adjacent to another lucerne variety along a common border) represents no more than 10% of the crop to be certified.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

Basic: three (3) years (maximum)

Certified:

Proprietary varieties: as prescribed by the breeder/maintainer but not exceeding six (6) years unless otherwise authorised.

Public varieties: seven (7) years except for cv *Hunter River* where no stand life limit applies for crops producing certified class seed.

Where Basic stands are down-graded, certified seed may be harvested for the remaining production years within the stand life limit. Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

C2: from areas sown with Authorised Certified (AC) seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *lucerne*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

LUCERNE *(continued)*

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	0.1%	

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	0.5%	

PERENNIAL RYEGRASS *(Lolium perenne)*

Sowing Seed

Basic seed
First Generation (C1) seed*

Paddock History

Land must not have grown or been sown to any *Lolium* species in the previous two (2) years; unless it was the same cultivar and certification class.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less, double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

Basic: two (2) years (maximum)

Certified: six (6) years (maximum)

Where Basic stands are down-graded, certified seed may be produced for a further four (4) years.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

*C2: from areas sown with a C1 seed line approved by Seed Services Australia

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *Lolium perenne*	1 per 30 m²	1 per 10 m²
Plants of other *Lolium* species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 50 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seed)
Maximum Other Seeds (% by mass)	0.3%	Nominated species (see Table 1 & Note 3)

Certified Class

Minimum Pure Seed (% by mass)	97.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seed)
Maximum Other Seeds (% by mass)	1.0%	

Fluorescence testing

For varieties of perennial ryegrass breeders may specify a maximum permitted level of seedling root fluorescence in Basic and Certified Seed. If no level is specified there will be no standard for the level of seedling root fluorescence and, unless specifically requested, it will not be determined.

PERSIAN CLOVER *(Trifolium resupinatum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Field History

Land must not have grown or been sown to persian clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of four (4) harvests of certified seed is permitted from Basic seed – provided satisfactory varietal purity is maintained.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 seed or from crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *persian clover*	1 per 30 m²	1 per 10 m²
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	60.0%	
Maximum Other Seeds (% by mass)	0.2%	Nominated species – other Trifolium spp. (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	60.0%
Maximum Other Seeds (% by mass)	1.0%

PHALARIS *(Phalaris aquatica)*

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to phalaris in the previous two (2) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

New crops at the seedling inspection containing mature or volunteer phalaris plants will be rejected from certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

Basic: three (3) years (maximum)
Certified: ten (10) years (maximum)

Where Basic stands are down-graded, certified seed may be produced for a further seven (7) years.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *Phalaris aquatica*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seeds)
Maximum Other Seeds (% by mass)	0.3%	Nominated species (See table 1 & note 3)

Certified Class

Minimum Pure Seed (% by mass)	97.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seeds)
Maximum Other Seeds (% by mass)	1.0%	

PURPLE CLOVER *(Trifolium purpureum)*

Sowing Seed

Basic seed
First Generation (C1) seed*

Paddock History

Land must not have grown or been sown to purple clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of four (4) harvests of certified seed is permitted from Basic seed or three (3) harvests of certified seed for crops sown with C1 seed – provided satisfactory varietal purity is maintained.

Classes

C1: from new areas sown with Basic seed

C2: from new area sown with C1 seed or from crops produced in the second year via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *purple clover*	1 per 30 m²	1 per 10 m²
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	65.0%	
Maximum Other Seeds (% by mass)	1.0%	Nominated species – other Trifolium spp. (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	65.0%
Maximum Other Seeds (% by mass)	1.0%

RED CLOVER *(Trifolium pratense)*

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to red clover in the previous three (3) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

New crops at the seedling inspection containing mature or volunteer red clover plants will be rejected from certification.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

Basic: two (2) years (maximum)
Certified: four (4) years (maximum)

Where Basic stands are down-graded, certified seed may be produced for a further two (2) years.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *red clover*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	60.0%	
Maximum Other Seeds (% by mass)	0.2%	Nominated species – other Trifolium spp. (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	97.0%
Minimum Germination (% by count)	60.0%
Maximum Other Seeds (% by mass)	0.5%

ROSE CLOVER *(Trifolium hirtum)* - DISTINGUISHABLE VARIETIES

Varieties eligible

Hykon

Sowing Seed

No specific class of sowing seed is required; however the use of a seed line approved by Seed Services Australia is recommended.

Paddock History

Land should not have grown or been sown to rose clover in the previous three (3) years unless it was the same variety.

Isolation

Production areas must be separated from other varieties of rose clover by at least a three (3) metre strip (free of rose clover plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Pre-harvest inspection

Classes

C2 only

Crop Standards

Variety Purity:

Certified	95.0%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	
Maximum Other Seeds (% by mass)	1.0%	Nominated species - other Trifolium spp. (See Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	70.0%
Maximum Other Seeds (% by mass)	1.0%

SERRADELLA *(Ornithopus sp)*

This standard applies to both pink and yellow serradella.

Sowing Seed

Basic seed or Authorised Certified (AC) seed approved by Seed Services Australia.

Paddock History

Land should not have grown or been sown to any serradella species in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

Isolation

Production areas must be separated from other species and/or varieties of serradella by at least a three (3) metre strip (free of serradella plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Seedling inspection
(for crops producing Pre-Basic or Basic seed only)

Pre-harvest inspection

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 seed or from crops produced in the second or subsequent years via self seeding or by over-sowing with Basic or Authorised Certified (AC) seed

Crop Standards

Variety Purity:

Basic	99.5%	(minimum)
Certified	95.0%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	90.0%	
Minimum Germination (% by count)	75.0%	(including hard seeds)
Maximum Other Seeds (% by mass)	1.0%	

Certified Class

Minimum Pure Seed (% by mass)	90.0%	
Minimum Germination (% by count)	75.0%	(including hard seeds)
Maximum Other Seeds (% by mass)	1.0%	

STRAWBERRY CLOVER *(Trifolium fragiferum)*

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to strawberry clover in the previous three (3) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

New crops at the seedling inspection containing mature or volunteer strawberry clover plants will be rejected from certification.

Isolation

For fields larger than 2 hectares:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For fields of 2 hectares or less, double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

No stand life limit applies for cv. O'Connors and Palestine grown within the County of Grey (Millicent/Mt Gambier districts of South Australia).

For all varieties of strawberry clover grown outside of this region - the following applies:

Basic: three (3) years (maximum)
Certified: six (6) years (maximum)

Where Basic stands are down-graded, certified seed may be produced for a further three (3) years.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *strawberry clover*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	0.3%	Nominated species - other Trifolium spp. (See Note 3)

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	1.0%	

SUBTERRANEAN CLOVER *(Trifolium subterranean)* - DISTINGUISHABLE VARIETIES

Varieties eligible

Clare, Mt Barker and Woogenellup

Sowing Seed

No specific class of sowing seed is required; however the use of a seed line approved by Seed Services Australia is recommended.

Paddock History

Land should not have grown or been sown to subterranean clover in the previous three (3) years (unless it was the same variety) as the crop is likely to be rejected due to excess contamination by other varieties.

Isolation

Production areas must be separated from other varieties of subterranean clover by at least a three (3) metre strip (free of subterranean clover plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Pre-harvest inspection

Classes

C2 only

Crop Standards

Variety Purity:

Certified	95.0%	(minimum)

Seed Quality Standards

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	0.5%	

SUBTERRANEAN CLOVER *(Trifolium subterranean)* - INDISTINGUISHABLE VARIETIES

Varieties eligible

All varieties of subterranean clover except Clare, Mt Barker and Woogenellup

Sowing Seed

Basic seed
AC1 seed (min. 99% variety purity) or
AC2 seed (min. 98% variety purity)

Paddock History

Land must not have grown or been sown to subterranean clover in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated in any way which prevents the growth of naturally occurring seedlings. Failure to leave an unsown strip or the unauthorised treatment of the strip may make the crop ineligible for certification.
There is no requirement to maintain the unsown strip in the years following the initial sowing.

Isolation

Production areas must be separated from other varieties of subterranean clover by at least a three (3) metre strip (free of subterranean clover plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of four harvests of certified seed is permitted from Basic seed (or crops established with AC seed). The number of generations may be extended where the crop is likely to continue to meet certification standards.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 (AC1 or AC2) seed or from crops produced in the second or subsequent years via self seeding or by over-sowing with Basic or Authorised Certified (AC) seed

Crop Standards

Variety Purity:

Basic	99.5%	(minimum)
Certified	95.0%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	0.1%	

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	70.0%	(including max 20% hard seed)
Maximum Other Seeds (% by mass)	0.5%	

SULLA *(Hedysarum coronarium)*

Sowing Seed

Basic seed
First Generation (C1) seed*

Paddock History

Land must not have grown or been sown to Sulla in the previous three (3) years. Successive crops of the same variety and certification class may be grown on the same area without any time interval provided satisfactory varietal purity is maintained.

Isolation

For areas larger than 2 ha:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Stand Life

Due to the biennial and out-crossing habit of Sulla only one regeneration year is permitted i.e. for crops sown with Basic seed a maximum of two (2) harvests is permitted.

Where Basic seed crops are down-graded, certified seed may be produced for one (1) year.

A Sulla crop that has thinned out significantly in a regenerating year may be rejected from certification.

Classes

C1: from new areas sown with Basic seed

*C2: from new area sown with a C1 seed line approved by Seed Services Australia or from crops produced in the second year via self seeding or by over-sowing with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *Sulla*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.)	Nil	≤ 15%
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Certified Class

Minimum Pure Seed (% by mass)	90.0%
Minimum Germination (% by count)	65.0%
Maximum Other Seeds (% by mass)	1.0%

TALL FESCUE (*Festuca arundinacea*)

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to tall fescue in the previous two (2) years, unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

New crops at the seedling inspection containing mature or volunteer tall fescue plants will be rejected from certification.

Isolation

For areas larger than 2 hectares:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less, double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

Basic: two (2) years (maximum)
Certified: five (5) years (maximum)

Where Basic stands are down-graded certified seed may be produced for a further three (3) years.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *tall fescue*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seed)
Maximum Other Seeds (% by mass)	0.3%	Nominated species (see Table 1 & Note 3)

Certified class

Minimum Pure Seed (% by mass)	96.0%	
Minimum Germination (% by count)	75.0%	(including fresh ungerminated seeds)
Maximum Other Seeds (% by mass)	3.0%	of which no more than 1.0% shall be seeds other than Lolium sp.

TALL WHEAT GRASS (*Agropyron elongatum*)

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to tall wheat grass in the previous two (2) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

New crops at the seedling inspection containing mature or volunteer tall wheat grass plants will be rejected from certification.

Isolation

For areas larger than 2 hectares:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection
Pre-harvest inspection
Registration inspection (Refer to 3.5.3)

Stand Life

Basic: three (3) years (maximum)
Certified: seven (7) years (maximum)

Where Basic stands are down-graded, a further four (4) years production of certified class seed is permitted.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *tall wheat grass*	1 per 30 m²	1 per 10 m²
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	90.0%	
Minimum Germination (% by count)	65.0%	
Maximum Other Seeds (% by mass)	0.3%	Nominated species (see Table 1 & Note 3)

Certified Class

Minimum Pure Seed (% by mass)	85.0%
Minimum Germination (% by count)	65.0%
Maximum Other Seeds (% by mass)	2.0%

VETCH *(all species)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to any variety or species of vetch (including wild species of vetch and/or tares) in the previous three (3) years; unless it was the same variety and certification class.

New Sowings

New sowings of C1 or C2 class seed require a seedling inspection or an unsown strip of land to be left in the crop (all basic or earlier class crops only have the option of a seedling inspection).

The unsown strip must be at least one (1) metre in width and form a complete circuit of the paddock approximately one third of the way into the crop. The location of the unsown strip may be varied where the paddock is irregular in shape, divided by contour banks or the ground undulates.

The unsown strip may not be treated to prevent the growth of naturally occurring seedlings. Failure to leave an unsown strip or unauthorised treatment of the strip may make the crop ineligible for certification.

Isolation

For areas larger than 2 hectares:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less, double the isolation distances.

Inspections

Seedling inspection or unsown strip
(unsown strip only an option for C1 & C2 class crops)

Pre-harvest inspection

Number of successive harvests

A maximum of two (2) harvests of certified seed is permitted from Basic seed.

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 seed or from crops produced in the second or subsequent years via self seeding or by over-sowing with Basic or C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of the *vetch* species certified	1 per 30 m²	1 per 10 m²
Plants of other vetch species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	65.0%	
Maximum Other Seeds (number per kg)	0.5%	to include no more than 0.1% seeds other than other vicia spp.

Certified Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	65.0%	
Maximum Other Seeds (number per kg)	1.0%	to include no more than 0.5% seeds other than other vicia spp.

WHITE CLOVER (*Trifolium repens*)

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to white clover in the previous three (3) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

New crops at the seedling inspection containing mature or volunteer white clover plants will be rejected from certification.

Isolation

For areas larger than 2 hectares:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

For areas of 2 hectares or less double the isolation distances.

Inspections

Seedling inspection

Pre-harvest inspection

Registration inspection (Refer to 3.5.3)

Stand Life

Basic: two (2) years (maximum)

Certified: four (4) years (maximum)

Where Basic stands are down-graded, a further two (2) years production of certified class seed is permitted.

Crops that have thinned out significantly from the previous year will be rejected.

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *white clover* per 10 m²	1 per 30 m²	1
Seed produced from regenerated seedlings in the second and subsequent years (max.) 15%	nil	≤
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	60.0%	
Maximum Other Seeds (% by mass)	0.2%	Nominated species – Trifolium spp. (see Note 3)

Certified Class

Minimum Pure Seed (% by mass)	97.0%
Minimum Germination (% by count)	60.0%
Maximum Other Seeds (% by mass)	2.0%

8.2 Field Crop & Other Species

Cereals

- wheat
- barley
- oats
- triticale

Pulses

- broad beans
- faba beans
- field peas
- chickpeas
- lentils
- lupins

Canola
Linseed & Linola
Fodder Radish
Sorghum
Sorghum Hybrid
Sunflower

Note:

All individual Crop Standards are to be read in conjunction with the general rules for certification as documented in Sections 3 – 6 of this Manual.

Paddock History:
Unless otherwise stated previous paddock history requirements apply to crops producing certified classes of seed only. For paddock history requirements of higher classes of seed contact the Manager (Refer to 3.3.1).

Cultivar & Species Purity Standards
These standards apply at the pre harvest inspection only.

National Seed Quality Standards:
These standards apply to certified classes of seed only. For standards applying to higher classes of seed contact the Manager (Refer to 5.2).

CEREALS

The following standards apply for wheat, barley, oats and triticale.

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Basic & Certified seed:

Land must not have grown or been sown to:

- a cereal of the same species in the previous two (2) years
- any cereal species in the previous one (1) year

unless it was the same variety and certification class.

Isolation

With the exception of triticale - production areas must be separated from other cereals by at least a two (2) metre strip (free of any cereal plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Triticale (mainly self-pollinating varieties)

Basic:	50 metres from other varieties
Certified:	20 metres from other varieties

Triticale (cross-pollinating varieties)

Basic:	300 metres from other varieties
Certified:	250 metres from other varieties

Inspections

Pre-harvest inspection

Classes

C1: from crops sown with Basic seed

C2: from crops sown with C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of the *cereal species* certified		
For *wheat, barley, oats & triticale* (mainly self-pollinating varieties)	1:1000	3:1000
For *triticale* (cross-pollinating varieties)	1 per 30 m²	1 per 10 m²
Other cereals (inseparable*) in the above species	nil	1:2000

* Inseparable other cereals shall include crop plants, the seed of which cannot be thoroughly removed by the usual methods of seed processing from the crop seed being grown. For example, barley in wheat or vice versa or wheat and barley in oats, etc.

Seed Quality Standards

Basic Class

Minimum pure seed (% by mass)	99%	
Minimum germination (% by count)	85%	
Maximum other seeds (number per kg)	10/kg	Nominated species (see Table 2)

Certified Class

Minimum pure seed (% by mass)	98%	
Minimum germination (% by count)	85%	
Maximum other seeds (number per kg)	15/kg	Nominated species (see Table 2)

PULSES

The following standards apply for broad beans, faba beans, field peas, chickpeas, lentils and lupins.

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Basic seed:

Land must not have grown or been sown to:

- a pulse crop of the same species in the previous three (3) years
- any pulse crop in the previous one (1) year;

unless it was the same variety and certification class.

Certified seed:

Land must not have grown or been sown to:

- a pulse crop of the same species in the previous two (2) years
- any pulse crop in the previous one (1) year;

unless it was the same variety and certification class.

Isolation

Field beans and broad beans:

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

Yellow *(L. luteus)* **&** **White** *(L. albus)* **lupins:**

Basic: 100 metres from other varieties
Certified: 50 metres from other varieties

Field peas, chickpeas, lentils and Narrow-leaf *(L. angustifolius*) **lupins:**

Basic & Certified: 3 m from other varieties

Inspections

Pre-harvest inspection

Classes

C1: from crops sown with Basic seed

C2: from crops sown with C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of the *pulse species* certified	1 per 30 m²	1 per 10 m²
Plants of other pulse species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

PULSES *(continued)*

Seed Quality Standards

Basic Class

Minimum pure seed (% by mass)	99%	
Minimum germination (% by count)	70%	
Maximum other seeds (number per kg)	10/kg	Nominated species (see Table 2)

Certified Class

Minimum pure seed (% by mass)	98%	
Minimum germination (% by count)	70%	
Maximum other seeds (number per kg)	15/kg	Nominated species (see Table 2)

CANOLA *(non-hybrid varieties)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Basic seed:

Land must not have grown or been sown to canola or any other brassica or cruciferous crop species for the previous five (5) years, unless it was the same variety and certification class.

Certified seed:

Land must not have grown or been sown to canola or any other brassica or cruciferous crop species for the previous three (3) years, unless it was the same variety and certification class.

Land used for all classes of certified seed production must be free from volunteer contaminating plants at the time of sowing.

Isolation

Basic: 200 metres from other varieties or any other brassica or cruciferous crop or weed species

Certified: 100 metres from other varieties or any other brassica or cruciferous crop or weed species

Inspections

Pre-harvest inspection (mid-flowering)

Classes

C1: from crops sown with Basic seed

C2: from crops sown with C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *canola*	1:1000	3:1000
Other brassica or cruciferous species eg mustard (*B. juncea, B. hirta, S. alba*)	nil	1:10000

Seed Quality Standards

Basic Class

Minimum pure seed (% by mass)	99%	
Minimum germination (% by count)	85%	
Maximum other seeds (number per kg)	10/kg	Nominated species (see Table 2)

Certified Class

Minimum pure seed (% by mass)	99%	
Minimum germination (% by count)	85%	
Maximum other seeds (number per kg)	20/kg	Nominated species (see Table 2)

LINSEED & LINOLA *(Linum usitatissimum)*

Sowing Seed

Basic seed
First Generation (C1) seed

Paddock History

Land must not have grown or been sown to linseed, linola or flax in the previous five (5) years.

Successive crops of the same variety and certification class may be grown on the same field without any time interval provided satisfactory varietal purity is maintained.

Isolation

Production areas must be separated from other varieties of linseed, linola or flax by at least a five (5) metre strip (free of linseed plants) or a physical barrier such as a fence to prevent any mixture of seed during harvest.

Inspections

Pre-harvest inspection

Classes

C1: from crops sown with Basic seed

C2: from crops sown with C1 seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *linseed*	1:1000	3:1000
Plants of other species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Certified Class

Minimum pure seed (% by mass)	99%	
Minimum germination (% by count)	85%	
Maximum other seeds (number per kg)	20/kg	Nominated species (see Table 2)

FODDER RADISH *(Raphanus sativus)*

The following Crop Standards apply also to mustard, kale, swede and turnip seed crops although some variations may apply to particular species. For further information on Crop and Seed Quality Standards for these species contact Seed Services Australia.

Sowing Seed

Basic seed

Paddock History

Land should not have grown or been sown to any radish *spp* (including wild radish) or other closely related crops of *Brassica spp*, mustard or canola for the previous five (5) years, unless it was the same variety and certification class.

Isolation

Areas of fodder radish must be isolated from any other variety of radish or other closely related crops of *Brassica spp*, mustard or canola by the following distances:

Basic: 400 metres
Certified: 200 metres

For areas of 2 hectares or less, double the isolation distances.

Inspections

Pre-harvest inspection

Classes

C1: from areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *Raphanus sativus*	1 per 30 m²	1 per 10 m²
Plants of other similar species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	97.0%
Minimum Germination (% by count)	80.0%
Maximum Other Seeds (% by mass)	1.0%

Certified Class

Minimum Pure Seed (% by mass)	97.0%
Minimum Germination (% by count)	80.0%
Maximum Other Seeds (% by mass)	1.0%

For export to EU countries the following additional Other Seeds standards apply:

max. wild radish	0.3%
max. *Sinapis arvensis*	*0.3%*
max. *Rumex spp*	20 seeds/400 gm
Avena fatua, Avena ludo and Avena Sterils	nil

Sorghum (Sorghum bicolor)

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to sunflower in the previous two (2) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

Isolation

For all field sizes:

Basic:	800 metres from source of contaminating pollen
Certified:	400 metres from source of contaminating pollen

Inspections

Seedling inspection
Pre-harvest inspection

Classes

C1: from new areas sown with Basic seed

Crop Standards

Variety and Species purity:

Contaminant	Maximum allowed in: Basic	Certified
Other off-types or varieties of *Sorghum bicolor*	1 per 30 m²	1 per 10 m²
Plants of other similar species, the seeds of which are difficult to distinguish in a laboratory test or which will readily cross-pollinate with the crop being grown for seed	1 per 30 m²	1 per 10 m²

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	99.0%	
Minimum Germination (% by count)	85.0%	
Maximum other seeds (number per kg)	10/kg	Nominated species (see Table 2)

Certified Class

Minimum Pure Seed (% by mass)	98.0%	
Minimum Germination (% by count)	85.0%	
Maximum other seeds (number per kg)	15/kg	Nominated species (see Table 2)

Sorghum Hybrid (Sorghum sudanense x S. bicolor)

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to sunflower in the previous two (2) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

Isolation

For all field sizes:

Basic:	800 metres from other varieties
Certified:	400 metres from other varieties

Inspections

Seedling inspection
Pre-harvest inspection
2nd Pre-harvest inspection during flowering

Classes

C1: from new areas sown with Basic seed

Crop Standards

Variety Purity:

Basic	99.9%	(minimum)
Certified	99.7%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	85.0%
Maximum Other Seeds (% by mass)	0.4%

Certified Class

Minimum Pure Seed (% by mass)	98.0%
Minimum Germination (% by count)	85.0%
Maximum Other Seeds (% by mass)	0.4%

SUNFLOWER (*Helianthus annus L.*)

Sowing Seed

Basic seed

Paddock History

Land must not have grown or been sown to sunflower in the previous two (2) years; unless it was the same variety and certification class where a minimum one (1) year break between crops is recommended to meet varietal purity standards.

Isolation

For all field sizes:

Basic (Hybrid): 1500 metres from other varieties
Basic: 750 metres from other varieties
Certified: 500 metres from other varieties

Inspections

Seedling inspection
Pre-harvest inspection
2nd Pre-harvest inspection during flowering (hybrid crops)

Classes

C1: from new areas sown with Basic seed

C2: from new areas sown with C1 seed.

Crop Standards

Varietal Purity

Basic	99.7%	(minimum)
Certified 1st Gen	99.0%	(minimum)
Certified 2nd Gen	98.0%	(minimum)

Hybrid

Basic	99.8%	(minimum)
Certified	99.5%	(minimum)

Seed Quality Standards

Basic Class

Minimum Pure Seed (% by mass)	97.0%
Minimum Germination (% by count)	75.0%
Maximum Other Seeds (% by mass)	0.2%

Certified Class

Minimum Pure Seed (% by mass)	97.0%
Minimum Germination (% by count)	75.0%
Maximum Other Seeds (% by mass)	0.2%

Table 1 – NOMINATED SEEDS – REJECT LEVELS FOR BASIC SEED OF GRASSES

SPECIES	NOMINATED SEEDS (Maximum number/kg) NB: ISTA tolerances should be applied to all number counts. A one-way test at the 5% probability level is recommended.					MAXIMUM TOTAL NOMINATED SEEDS No/kg
	Dactylis glomerata	*Festuca arundinacea*	*Lolium* spp.	*Phalaris aquatica*	*Setaria* spp.	
Dactylis glomerata	**n/a**	**50**	**50**	**50**	**50**	**200**
Elytrigia elongata	**50**	**50**	**50**	**50**	**50**	**200**
Festuca arundinacea	**50**	**n/a**	**50**	**50**	**50**	**200**
Lolium multiflorum	**50**	**50**	**n/a**	**50**	**50**	**200**
Lolium perenne	**50**	**50**	**n/a**	**50**	**50**	**200**
Lolium rigidum	**50**	**50**	**n/a**	**50**	**50**	**200**
Lolium x boucheanum	**50**	**50**	**n/a**	**50**	**50**	**200**
Phalaris aquatica	**50**	**50**	**50**	**n/a**	**50**	**200**

NB: Refer also to Explanatory Note 3.

Table 2 – NOMINATED SEEDS – REJECT LEVELS FOR BASIC & CERTIFIED CLASS SEED OF FIELD CROPS

SPECIES	NOMINATED SEEDS										TOTAL OTHER SEED No/kg (Includes Nominated Seeds)	
	Other Cereals Max No/kg		Other Grain Legumes Max No/kg		Wild Oats Max No/kg		*Lolium* and *Phalaris* spp. (in total) Max No/kg		Vetch (all species) Max No/kg			
	Cert	**Basic**	Cert	**Basic**	Cert	**Basic**	Cert	**Basic**	Cert	**Basic**	Cert	**Basic**
BARLEY	1	**Nil**	3	**1**	2	**2**	5	**5**	3	**1**	15	**10**
OATS	1	**Nil**	3	**1**	2	**2**	5	**5**	3	**1**	15	**10**
RYE	1	**Nil**	3	**1**	2	**2**	5	**5**	3	**1**	15	**10**
TRITICALE	1	**Nil**	3	**1**	2	**2**	5	**5**	3	**1**	15	**10**
WHEAT	1	**Nil**	3	**1**	2	**2**	5	**5**	3	**1**	15	**10**
CHICK PEAS	2	**1**	1	**Nil**	3	**3**	5	**5**	1	**Nil**	15	**10**
FABA & FIELD BEANS (including Broad Beans)	2	**1**	1	**Nil**	3	**3**	5	**5**	1	**Nil**	15	**10**
FIELD PEAS	2	**1**	1	**Nil**	3	**3**	5	**5**	1	**Nil**	15	**10**
LENTILS	2	**1**	1	**Nil**	3	**3**	5	**5**	1	**Nil**	15	**10**
LUPINS	2	**1**	1	**Nil**	3	**3**	5	**5**	1	**Nil**	15	**10**
CANOLA	Nil	**Nil**	Nil	**Nil**	NIl	**Nil**	Nil	**Nil**	Nil	**Nil**	20	**20**
Canola Basic & Certified Class: Also NIL ***Brassica juncea, B. hirta, B. tournefortii, B. oxyrrhina, Raphanus raphanistrum, R. rugosum & Sisymbrium spp.***												
COTTON	Nil	**Nil**	Nil	**Nil**	NIl	**Nil**	Nil	**Nil**	Nil	**Nil**	0.2%	**0.1%**
SORGHUM	2	**1**	1	**Nil**	2	**2**	5	**5**	3	**1**	15	**10**

EXPLANATORY NOTES

1. All tests are to be carried out in accordance with the International Seed Testing Association (ISTA) Rules for Seed Testing 2011 or as amended from time to time.
2. The words "Pure Seed", "Other Seed", "Germination", "Hard Seed" and "Fresh Ungerminated Seed" shall have the meaning ascribed to them in the ISTA Rules for Seed Testing 2011 or as amended from time to time.
3. Basic Seed – Other Seeds to include not more than 200 seeds /kg in total of Nominated Seeds and not more than 50 seeds/kg of any one Nominated Seed, unless otherwise stated. For all *Trifolium* spp. the maximum number of seeds of other *Trifolium* spp. is 200/kg. ISTA tolerances should be applied to all number counts. A one-way test at the 5% probability level is recommended.
4. Minimum germination standards for legume species exclude Hard Seed unless otherwise stated.
5. Minimum quality standards for Basic Seed may be waived where the quality of the Basic Seed to be used will not affect the genetic integrity of the crop or impede the ability of the crop to achieve certification, or where it is the only supply of Basic Seed available or likely to be available. Certification Agencies are required to consult with the CEO of ASA regarding the use of Basic Seed of a lower quality than the applicable quality standard contained in the ASA Technical Standards. If the seed does not meet the minimum germination standard, the CEO of ASA may seek advice from the breeder of the variety, or other recognised expert, to confirm that using seed of a lower germination standard will not compromise the genetic integrity of the resultant seed crop.

Compiled by the Australian Seeds Authority Ltd – December 2010. Amended March 2013.

9. APPENDICES

9.1 Conditions for Acceptance of Plant Varieties into Seed Certification Schemes conducted in Australia

9.2 Application for Acceptance of a Plant Variety into Seed Certification Schemes in Australia

9.3 Prohibited weed seeds

9.1 CONDITIONS FOR ACCEPTANCE OF PLANT VARIETIES INTO SEED CERTIFICATION SCHEMES CONDUCTED IN AUSTRALIA

AUSTRALIAN SEEDS AUTHORITY LTD.

Australian Seeds Authority Ltd
PO Box 187
Lindfield NSW 2070
Phone: 02 9416 2943
Fax: 02 9416 4109
Email: lcook@aseeds.org.au

CONDITIONS FOR ACCEPTANCE OF PLANT VARIETIES INTO SEED CERTIFICATION SCHEMES CONDUCTED IN AUSTRALIA

Countries participating in the OECD Seed Schemes are required to publish and revise annually an official national list of varieties that have been accepted as eligible for OECD certification. The Australian list also covers varieties eligible for inclusion in the Australian Seed Certification Scheme. Only listed varieties, which includes parental constituents of hybrids, are eligible for certification in the relevant certification schemes.

Applications

All applications for listing are to be made on the form "Application for Acceptance of Plant Variety into Seed Certification Schemes in Australia" available from the Chief Executive Officer of the Australian Seeds Authority Ltd. (ASA) and on the ASA website http://aseeds.net.au/ Applications for new varieties to be commercialised should be lodged not later than 30 days from the expected date of inspection of crops eligible to produce the first Basic Seed of the variety.

Additional information on the variety must accompany the application. A statement detailing the origin and breeding history of the variety, a morphological description of the variety, a statement of authorisation from the breeder (if the applicant is not the breeder) to apply for certification and to multiply the variety in Australia, a brief statement of the expected agronomic value of the variety in Australia, and a maintenance plan indicating the number of generations and the number of harvests allowed for each generation, are required. This information can be provided on the application form, or as an attachment to the application form.

Preferably this information should be provided electronically, but it may be provided in hard copy.

For varieties covered by Plant Breeder's Rights (PBR), the information required by the PBR Office will generally be adequate to meet ASA requirements for origin, uniformity, stability and morphological description, although the morphological description in the PBR application may need to be supplemented by additional comparative information.

Information to Accompany Application

1. **Origin**

   Provide details of the origin and breeding history of the variety.

2. **Uniformity and Stability**

   Evidence must be provided on the uniformity and stability of the variety having regard to the species concerned and the breeding system used. Indicate the period over which the generations of seed multiplication have been observed as being uniform and stable. If off-types have been observed, state their frequency and supply a description of them.

3. **Variety Description**

   A detailed morphological description of the variety is required. Comparative information with other varieties of the same species currently in use should be included. The description of

characters must be consistent with that given in any Part 2 application for Plant Breeder's Rights. The description should be based on the descriptors established by the OECD for that species. These are available on the website www.oecd.org/tad/seed. These in turn have been developed from UPOV guidelines on the development of harmonized, internationally recognized descriptions of protected varieties. Guidelines for many species are available on the UPOV web site at http://www.upov.int/en/publications/tg-rom/index.html.

The exception to this required level of morphological description is for Lucerne varieties which have been registered in the USA under the AOSCA seed certification scheme. The description registered by AOSCA for that variety will be accepted by ASA.

In the case of hybrid varieties, a description of the parental components is required. The registration of a hybrid variety is understood to include the parental constituents, so the same level of information must be provided for the parental lines. Inbred lines or crosses intended as potential parental constituents of a number of hybrids may also be listed separately.

4. Name of Variety

The name of the variety must be consistent with the International Code of Nomenclature for Cultivated Plants. Real words or code words of combinations of letters and numbers are acceptable.

ASA has a policy, supported by the seed industry of not allowing synonyms for varieties marketed in Australia. However synonyms will be registered with the OECD for seed to be marketed overseas. Any such synonyms must only be applied to OECD certified seed labels on seed destined for export. ASA-authorised seed certification agencies will normally require a written commitment from seed owners that all seed labelled with a synonym registered for overseas will be exported.

ASA initially had a policy of not allowing trademarks to be used as variety names, and vice versa, as this is consistent with the requirements of the Australian PBR Office and the International Code of Nomenclature for Cultivated Plants. However the OECD allows the use of trademarks for variety names or part of a variety name, and ASA has reviewed this policy and will now allow the use of trademarks as a variety name or part of a variety name.

5. Agronomic Value in Australia

There are no standards for agronomic value but applicants must indicate the anticipated agronomic value of the variety in Australian agriculture relative to other commonly grown varieties.

6. Variety Maintenance (For Varieties maintained in Australia).

The applicant must provide details of the maintenance plan adopted for the production of Pre-Basic, Basic and Certified Seed.

The Variety Maintainer, usually the breeder or an agent, is responsible for ensuring that multiplication of Breeders and Pre-Basic Seed is carried out in a satisfactory manner so that only authentic, uncontaminated seed of the variety is released for further multiplication under the certification schemes. The variety maintainer may also nominate one or more Basic Seed maintainers to be responsible, in close consultation with the variety maintainer, for the production of Basic Seed and, in some cases, one or more generations of Pre-Basic Seed.

The Variety Maintainer needs to decide how Breeders Seed or parental material is multiplied through a specified number of Pre-Basic generations to produce Basic Seed. The system used must ensure that varietal characters are preserved and that sufficient supplies of Pre-Basic Seed are retained to meet the demand for Basic Seed for the anticipated life of the variety. ASA must have access to all records of maintenance of varieties in the certification schemes.

A maintenance plan for a variety of a perennial species must at least specify:

- the lot reference number of the Breeders Seed;
- the number of generations of Pre-Basic Seed between Breeders and Basic Seed; and
- the maximum number of harvests for each Pre-Basic generation and the maximum number of harvests of the Basic and Certified seed generations.

The Maintenance Plan should also indicate whether or not a certification agency will be overseeing and assisting with the production of Pre-Basic Seed. This collaboration is strongly encouraged as it can often result in the identification and correction of any varietal purity issues prior to larger scale production of Certified Seed.

If the Maintenance Plan does not specify the maximum number of generations of Certified Seed permitted and, for perennial species, the maximum stand life of each generation of seed to be produced in Australia, the default standard specified in the next paragraph will apply. In the case of the OECD Schemes, if the maximum number of generations of Certified Seed permitted is not stated, the default position of permitting only 1st Generation (Blue Label) Certified Seed will be applied by certification agencies.

In the case of varieties of perennial species, the maximum permitted stand life shall be six (6) years for grasses and lucerne and four (4) years for other species, with the exception that an irrigated stand of phalaris may have a maximum stand life of ten (10) years, provided it meets all other requirements for seedling establishment and plant density. It should be noted that this restriction applies to the time since the crop was established and does not refer to the number of harvests taken. Allowance can be made for seed crops established too late in the season to allow a harvest in their first year of establishment.

The information required is specified in the form "Application for Acceptance of Plant Variety into Seed Certification Schemes in Australia".

7. Field and Seed Standards

The applicant has to indicate whether any special field or laboratory seed standards are required. If no special seed standards are specified, the default seed standards in the ASA Technical Standards will be applied by the certification agency.

For varieties of perennial ryegrass breeders may specify a maximum permitted level of seedling root fluorescence in Basic and Certified Seed. If no level is specified there will be no standard for the level of seedling root fluorescence and, unless specifically requested, it will not be determined.

8. Standard Samples

A standard sample of seed of the variety must be made available to each certification agency involved in certifying the variety and will be held by those agencies for at least 10 years. The standard sample should be Pre-Basic Seed. Each year a portion of the standard sample may be used in pre-control or post control plot tests conducted under the supervision of the certification agency. Replacement seed of the standard sample must be provided on request by the certification agency when samples are depleted or the germination falls below acceptable levels.

The minimum size of standard samples is as follows: 1 kg for cereals, cotton, pulses and sunflower; 600 g for snail medic; 500 g for subterranean clover; 300 g for gama medic; 200 g for Brassicas, crimson clover, dehulled serradella seed and grasses other than phalaris and cocksfoot; 150 g for other medics; and 100g for other clovers, lucerne, phalaris and cocksfoot.

9. Responsibility for Post Control Tests

Post-control tests are conducted to ascertain that the Certification Scheme is operating satisfactorily. In particular, these field tests are intended to determine that the characters of varieties have remained unchanged in the process of multiplication and to enable the varietal identity and purity of individual seed lots to be verified.

The OECD Rules specify that post control tests are expected to be conducted by the maintainer (or agent of the maintainer) under the supervision of a designated certification agency. An alternative is that the certification agency will arrange to conduct the tests on a fee for service basis. Applicants are requested to discuss these options with the certification agency they will be dealing with and to nominate on the Application Form the person or entity responsible for conducting the tests. Note that the ASA Technical Standard for both the OECD and the Australian Seed Certification Schemes require that all Basic Seed lots and a minimum of 1 lot or 5% of Certified Seed lots, whichever is greater, for each variety certified in the previous year must be post-control tested. However there are some exceptions for the Australian Seed Certification Scheme and these should be noted.

10. Overseas Varieties

Varieties which are registered for OECD certification in another country will be accepted for registration for certification under either the OECD Seed Schemes, and/or the Australian Seed Certification Scheme, provided that:

1. written approval is obtained from the breeder or owner of the variety;
2. an acceptable morphological description, in English, is provided;
3. a satisfactory Maintenance Plan is provided, which specifies the generations to be produced in Australia and the number of harvests which can be taken from each generation, and a commitment from the breeder/owner to provide seed of the earliest generation required to be sown in Australia;
4. a written commitment is made to provide a standard sample to the certification agency(ies) which will certify the variety;
5. the approval of the National Designated Authority (NDA) in the country of registration of the variety is obtained, when requested by the CEO of ASA. Approval will normally be required, unless ASA has an agreement with the NDA of the country of registration that such approval is not required, or unless the CEO of ASA otherwise determines;
6. if the variety is to be certified under the OECD Seed Schemes, the National Designated Authority in the country of registration of the variety must authenticate the identity of the seed to be multiplied and supply the official description and standard sample of the variety; and
7. containers of seed to be multiplied must be identified with official labels issued by the certification agency in the country of origin.

Varieties of Lucerne which have been registered for certification in the USA or Canada under the AOSCA scheme will be accepted for certification in Australia under the Australian Seed Certification Scheme, subject to the above conditions, except that the morphological description accepted by AOSCA in the USA or Canada will be accepted by ASA.

Note: All information for both categories of overseas varieties above must be lodged prior to the closing date specified by the certification agency for certification of the species concerned.

Listing of Varieties Eligible for Certification

With the exception of overseas varieties to be certified solely for multiplication and re-export, varieties accepted for certification in Australia will be placed on the ASA National List of Plant Varieties Eligible for Seed Certification in Australia, which is published regularly on the ASA website http://aseeds.net.au/ . ASA will liaise regularly with maintainers to monitor the maintenance status of all listed varieties. When a variety is no longer being maintained, it will be removed from the list.

Application fee

An application fee applies for Australian and OECD listing of varieties eligible for certification and for OECD listing of additional synonyms for varieties already listed.

The application fee applicable at any given time is available on the ASA website at http://aseeds.net.au/document/cat_view/61-administration-and-governance and is payable on lodgement of the application. Varieties will not be registered until the fee has been paid.

9.2 APPLICATION FOR ACCEPTANCE OF A PLANT VARIETY INTO SEED CERTIFICATION SCHEMES IN AUSTRALIA

AUSTRALIAN SEEDS AUTHORITY LTD.

Email	lcook@aseeds.org.au
Fax	02 9416 4109
Mail	PO Box 187
	Lindfield NSW 2070

Application for Acceptance of a Plant Variety into Seed Certification Schemes in Australia

Date of Application

Proposed Name of Variety (including any Synonym/s)

Species (Botanical name and common name)

Name and Address of Applicant

Name and Address of Breeder

Please note: The ASA Conditions for Acceptance of Varieties provide more detail on the information required under each of these headings. A copy of this document is provided with this form, and should be examined by anyone intending to apply for the registration of a variety for certification under the OECD Seed Schemes and/or the Australian Seed Certification Scheme.

If you are not the breeder, please provide written approval from the breeder to apply for certification of the seed of the variety in Australia under the OECD and/or the Australian Seed Certification Schemes, and to act as the breeder's agent in Australia.

- ◯ **Attached**
- ◯ **I am the breeder**

This Variety is

- ◯ **Open pollinated (Cross-pollinated or self-pollinated ie. non hybrid)**
- ◯ **Hybrid**
- ◯ **Female parent of a hybrid ("A" line)**
- ◯ **Male parent of a hybrid ("B" line)**
- ◯ **Restorer line (Self pollinated hybrid parent)**
- ◯ **Other (Please specify)**

If this is a hybrid, name the parental lines.

Has this variety been registered for certification in another country?

- ◯ **No**
- ◯ **Yes. If Yes, under what scheme and name(s):**
  - ☐ **OECD Seed Schemes, Name:**
  - ☐ **AOSCA, Name:**

Do you want this variety registered for certification under:

- ☐ **OECD Seed Schemes**
- ☐ **Australian Seed Certification Scheme**

Is, or will, this variety be protected in Australia under Australian PBR (Please provide documentary evidence if PBR has been granted)

- ◯ **PBR will not be applied for**
- ◯ **Is currently protected**
- ◯ **PBR has, or will be applied for**

Is this variety protected under a PBR scheme in another country

- ◯ **Yes**
- ◯ **No**

If yes what country (Please provide evidence, including the PBR/PVR registration number)

Will this variety be protected in Australia under a Trademark

- ◯ **Yes**
- ◯ **No**

If yes, what is the proposed Trademark Please keep in mind that a variety name can't be used as a trademark, and a trademark can't be used as a variety name. Be sure you don't endanger your trademark, and consult a Trademark/Patent attorney if in doubt.

Origin and breeding history (Provide as an attachment)
Please provide detailed breeding history. This breeding history should also provide evidence of the uniformity of the variety, and its stability under the proposed multiplication regime in Australia.

What Generations will be produced in Australia

- ☐ **Breeders**
- ☐ **Pre-Basic. If so, how many generations**
- ☐ **Basic**
- ☐ **First Generation Certified**
- ☐ **Second Generation Certified**

If Breeders or Pre-Basic seed will not be produced in Australia, where will it come from? Please attach a written commitment from the source of this seed to provide this seed as required.

How many harvests will be allowed from each crop of each generation of seed produced in Australia

Pre-Basic

Basic

First Generation Certified

Second Generation Certified

Variety Description (Provide as an attachment)

Please provide a detailed morphological description which will enable an experienced field inspector to distinguish this variety, where possible, from other varieties of that species registered in Australia, or of common knowledge in Australia. A description accepted by a National Designated Authority in another country for OECD certification will be acceptable in most cases. The description provided to the Australian PBR Office under Part 2 of the application will be suitable. If PBR is not to be applied for in Australia, a detailed morphological description must still be provided using the UPOV descriptors for that species. A person qualified to produce a description for Part 2 of a PBR description could be commissioned to develop an appropriate description for registration for certification.

Please refer to Appendix 1 of the ASA Technical Standards which is attached for the special requirements for hybrid varieties.

Do you propose quality standards for seed purity and germination which are different from those specified for this species in the ASA Technical Standards

- ◯ **Standard conditions**
- ◯ **Special conditions** Please specify where they differ from the standard conditions

Please specify who will be the Maintainer for this variety This means who will be responsible for maintaining supply of the earliest generation of seed to be grown in Australia, and who is authorised to specify the number of generations and harvests for each generation, and the field purity standards and seed purity and germination standards for this variety. This should be an individual or a position within the applicant's company or organisation.

Who will conduct the post-control tests for this variety

- ◯ **The Maintainer**
- ◯ **The designated Certification Agency** Please specify
- ◯ **The Maintainer's agent** Please specify

Please indicate what agronomic value this variety will offer Australian agriculture
Agronomic merit does not have to be demonstrated, and no trial data is required, but a statement of how and where this variety will provide value to those farmers who grow it is required. Provide as an attachment if space insufficient.

Do you agree that a Standard Sample of this variety will be provided to each Certification Agency who will be requested to certify seed of this variety.

◯ **Yes** Please consult with the Certification Agency(ies) of your choice for the size of the standard sample required.

◯ **No**

Name, signature and status of signatory within the applicant organisation.

Signature: .....

Name:

Status:

Notes for completion of form

Please complete all sections of this form. To start just click in the first field, and then use the TAB button to move to the next questions/sections, and either click on the appropriate buttons, or fill in the text field. Save and email to the address on the top of the form.

If this is not possible, please print out the blank form fill it out in a strong black pen, so that it can be scanned successfully, and then fax or post to the address on the top of the form

Please remember to attach:
Evidence of PBR registration (if applicable), including the PBR/PVR registration number from Australia or overseas registration
Origin and breeding history
Variety description

9.3 PROHIBITED WEED SEEDS

Declared plants that are prohibited from sale in South Australia under section 177, July 2017

Common Name	Botanical Name
African boxthorn	*Lycium ferocissimum*
African feathergrass	*Cenchrus macrourus*
African lovegrass	*Eragrostis curvula*
African rue	*Peganum harmala*
Aleppo pine	*Pinus halepensis*
Alisma	*Alisma lanceolatum*
Alkali sida	*Malvella leprosa*
Alligator weed	*Alternanthera philoxeroides*
Apple-of-Sodom	*Solanum linnaeanum*
Arum lily	*Zantedeschia aethiopica*
Asparagus fern	*Asparagus scandens*
Athel pine	*Tamarix aphylla*
Austrocylindropuntia cacti	*Austrocylindropuntia* spp.
Azarola	*Crataegus sinaica*
Bathurst burr	*Xanthium spinosum*
Bellyache bush	*Jatropha gossypiifolia*
Berry heath	*Erica baccans*
Bifora	*Biflora testiculata*
Blackberry, European	*Rubus fruticosus* sp. agg.
Bladder campion	*Silene vulgaris*
Blue mustard	*Chorispora tenella*
Bluebell creeper	*Billardiera fusiformis* & *Billardiera heterophylla*
Boneseed	*Chrysanthemoides monilifera*
Box elder	*Acer negundo*
Bridal creeper	*Asparagus asparagoides*
Bridal veil	*Asparagus declinatus*

Broomrapes	*Orobanche* spp.
Buffel grass	*Cenchrus ciliaris* and *Cenchrus pennisetiformis*
Bulbil watsonia	*Watsonia meriana* var. *bulbillifera*
Bundy blackberry	*Rubus laudatus*
Cabomba	*Cabomba caroliniana*
Calomba daisy	*Oncosiphon suffruticosum*
Caltrop	*Tribulus terrestris*
Cane needlegrass	*Nassella hyalina*
Cape broom	*Genista monspessulana*
Cape tulip	*Moraea flaccida* & *Moraea miniata*
Carrion flower	*Orbea variegata*
Cats claw creeper	*Dolichandra unguis-cati*
Chilean needlegrass	*Nassella neesiana*
Climbing asparagus fern	*Asparagus plumosus*
Coastal tea-tree	*Leptospermum laevigatum*
Common lantana	*Lantana camara*
Coolatai grass	*Hyparrhenia hirta*
Creeping knapweed	*Rhaponticum repens*
Cutleaf mignonette	*Reseda lutea*
Cylindropuntia cacti	*Cylindropuntia* spp.
Desert ash	*Fraxinus angustifolia*
Distichlis	*Distichlis spicata*
Dodder	*Cuscuta* spp.
Dog rose	*Rosa canina*
Dolichos pea	*Dipogon lignosus*
Dune onionweed	*Trachyandra divaricata*
Elodea	*Elodea canadensis*
English/Scotch broom	*Cytisus scoparius*
Espartillo grasses	*Amelichloa brachychaeta & Amelichloa caudata*
Eurasian water milfoil	*Myriophyllum spicatum*
False caper	*Euphorbia terracina*

Field bindweed	*Convolvulus arvensis*
Field garlic	*Allium vineale*
Fireweed	*Senecio madagascariensis*
Flax-leaf broom	*Genista linifolia*
Fountain grass	*Cenchrus setaceus*
Gamba grass	*Andropogon gayanus*
Gazania	*Gazania* spp.
Giant arrowhead	*Sagittaria montevidensis*
Giant reed	*Arundo donax*
Gorse	*Ulex europaeus*
Ground asparagus	*Asparagus aethiopicus*
Hoary cress	*Cardaria draba*
Horehound	*Marrubium vulgare*
Horsetails	*Equisetum* spp.
Hydrocotyle	*Hydrocotyle ranunculoides*
Hymenachne	*Hymenachne amplexicaulis* & *H. calamitosa*
Innocent weed	*Cenchrus longispinus* & *Cenchrus spinifex*
Italian buckthorn	*Rhamnus alaternus*
Khaki weed	*Alternanthera pungens*
Kochia	*Kochia scoparia*
Lagarosiphon	*Lagarosiphon major*
Leafy elodea	*Egeria densa*
Lincoln weed	*Diplotaxis tenuifolia*
Madeira vine	*Anredera cordifolia*
May or hawthorn	*Crataegus monogyna*
Mesquite	*Prosopis* spp.
Mexican feathergrass	*Nassella tenuissima*
Miconia	*Miconia* spp.
Mimosa	*Mimosa pigra*
Mirror bush	*Coprosma repens*
Muskweed	*Myagrum perfoliatum*

Nightstock	*Matthiola longipetala*
Noogoora burrs	*Xanthium strumarium* spp. agg.
Nutgrass	*Cyperus rotundus*
Opuntia cacti	*Opuntia* spp.
Orange hawkweed	*Hieracium aurantiacum*
Ornamental asparagus	*Asparagus africanus*
Pampas grasses	*Cortaderia* spp.
Parkinsonia	*Parkinsonia aculeata*
Parrot feather	*Myriophyllum aquaticum*
Parthenium weed	*Parthenium hysterophorus*
Perennial ragweed	*Ambrosia* spp.
Perennial thistle	*Cirsium arvense*
Plumerillo	*Jarava plumosa*
Poison buttercup	*Ranunculus sceleratus*
Poison ivy	*Toxicodendron radicans*
Polygala	*Polygala myrtifolia*
Pond apple	*Annona glabra*
Prickly acacia	*Vachellia nilotica* subsp. *indica*
Primrose willow	*Ludwigia peruviana*
Ragwort	*Senecio jacobaea*
Rhus tree	*Toxicodendron succedaneum*
Rubber vine	*Cryptostegia grandiflora*
Sagittaria	*Sagittaria platyphylla*
Salvation Jane	*Echium plantagineum*
Salvinia	*Salvinia molesta*
Senegal tea plant	*Gymnocoronis spilanthoides*
Serrated tussock	*Nassella trichotoma*
Silverleaf nightshade	*Solanum elaeagnifolium*
Skeleton weed	*Chondrilla juncea*
Spiny rush	*Juncus acutus*
Swamp oak	*Casuarina glauca* & *Casuarina obesa*

Sweet briar	*Rosa rubiginosa*
Sweet pittosporum	*Pittosporum undulatum*
Tamarisks	*Tamarix ramosissima* & *Tamarix parviflora*
Texas needlegrass	*Nassella leucotricha*
Three corner jack	*Emex australis*
Three-cornered garlic	*Allium triquetrum*
Three-horned bedstraw	*Galium tricornutum*
Toe toe	*Cortaderia richardii*
Tree heath	*Erica arborea*
Variegated thistle	*Silybum marianum*
Water caltrop	*Trapa natans*
Water dropwort	*Oenanthe pimpinelloides*
Water hyacinth	*Eichhornia crassipes*
Water soldier	*Stratiotes aloides*
White weeping brooms	*Retama monosperma* & *Retama raetam*
Wild artichoke	*Cynara cardunculus*
Willows Salix	Willows *Salix* some species only
Witchweeds	*Striga* spp
Yellow burrweed	*Amsinckia* spp.

The above list is limited to the declared plants in South Australia; if a comprehensive list of prohibited seeds and noxious weeds is required for any other state or territory please contact the relevant state or territory Authority.

The latest ‘Declared plants in South Australia’ list can be found at the following address: http://www.pir.sa.gov.au/biosecurity/weeds_and_pest_animals