

NATIONAL SEED QUALITY STANDARDS FOR BASIC AND CERTIFIED SEED

The ASA Technical Standards for the OECD and Australian Seed Certification Schemes prescribe minimum purity and germination standards for seed certified in Australia under both schemes and intended for marketing within Australia. These standards apply to all varieties for which the variety maintainer has not specified higher standards.

A seed lot failing to meet the national quality standards cannot be marketed in Australia as Certified Seed and measures must be implemented to ensure that the seed lot is not released for sale until the certification labels are removed.

While the national standards must be applied for domestic sales, special provisions may be made on a case by case basis for seed intended for export markets.

Although physical seed quality is not strictly part of certification, the Australian seed industry has asked ASA to maintain quality standards as part of the certification process.

The current quality standards are incomplete in that they do not include standards for a number of species now being certified in Australia, nor do they set minimum germination standards for Basic Seed.

Therefore, ASA believes the schedule should be updated and has developed the attached standards in consultation with the ASA Technical Advisory Committee (ASATAC).

The schedule proposes standards for:

- Basic Seed of all species currently listed with ASA for certification under either the OECD or the Australian Seed Certification Schemes, and
- Certified Seed for species not covered by the existing schedule.

Please note that all proposed additions or changes are shown in the attached schedule in **bold type**, while all existing standards are shown in normal type.

ASA now seeks input and comment from industry on the proposed new standards.

Please email your comments to Ms Marcia Taylor, ASA Executive Officer, at mtaylor@aseeds.org.au Closing date for comments is COB 9 July 2010.

(Dr) Lindsay Cook
CEO
Australian Seeds Authority Ltd.
13 May 2010

DRAFT NATIONAL SEED QUALITY STANDARDS FOR BASIC AND CERTIFIED SEED

NB: Please refer to the Explanatory Notes on Page 11 when using this document.

[Please note: Proposed new and/or amended standards and/or wording are shown in bold type. Current standards are shown in standard type.]

Species	Class	Min % Pure Seed	Max % Other Seed	Min % Germ	Other Conditions / Comments	
GRASSES						
<i>Bothriochloa insculpta</i>	Creeping Bluegrass	Basic Certified	- 50.0	- 5.0	- 20	No varieties currently listed with ASA for certification in Australia
<i>Cenchrus ciliaris</i>	Buffel Grass	Basic Certified	90.0 90.0	2.0 2.0	20 20	
<i>Chloris gayana</i>	Rhodes Grass (Diploid)	Basic Certified	80.0 80.0	4.0 4.0	20 20	
<i>Dactylis glomerata</i>	Cocksfoot	Basic Certified	90.0 90.0	0.3 3.0*	70 70	Nominated species – see Table 1 & Note 3 *To include not more than 1.0% species other than <i>Lolium</i> spp..
<i>Ehrharta calycina</i>	Perennial Veldt Grass	Basic Certified	- 65.0	- 1.0	- 40	No varieties currently listed with ASA for certification in Australia
<i>Elytrigia elongata</i>	Tall Wheat Grass	Basic Certified	90.0 85.0	0.3 2.0	65 65	Nominated species –see Table 1 & Note 3.
<i>Eragrostis curvula</i>	Lovegrass	Basic Certified	- 97.0	- 0.5	- 70	No varieties currently listed with ASA for certification in Australia Cv. Consol
<i>Festuca arundinacea</i>	Tall Fescue	Basic Certified	99.0 96.0	0.3 3.0*	70 70	Nominated species –See Table 1 & Note 3 *To include not more than 1.0% species other than <i>Lolium</i> sp.
<i>X Festulolium</i>	Festulolium	Basic Certified	99.0 96.0	0.3 3.0*	70 70	Nominated species –See Table 1 & Note 3 *To include not more than 1.0% species other than <i>Lolium</i> sp.

Species		Class	Min % Pure Seed	Max % Other Seed	Min % Germ	Other Conditions / Comments
<i>Lolium multiflorum</i>	Italian Ryegrass	Basic	99.0	0.3	75[#]	Nominated species – See Table 1 & Note 3. #Including fresh ungerminated seeds
		Certified	97.0	1.0	75[#]	
<i>Lolium perenne</i>	Perennial Ryegrass	Basic	99.0	0.3	75[#]	Nominated species – See Table 1 & Note 3. #Including fresh ungerminated seeds
		Certified	97.0	1.0	75[#]	
<i>Lolium rigidum</i>	Annual Ryegrass	Basic	99.0	0.3	75[#]	Nominated species – See Table 1 & Note 3. #Including fresh ungerminated seeds
		Certified	97.0	1.0	75[#]	
<i>Lolium x boucheanum</i> [<i>L. x hybridum</i>]	Hybrid Ryegrass	Basic	99.0	0.3	75[#]	Nominated species – See Table 1 & Note 3. #Including fresh ungerminated seeds
		Certified	97.0	1.0	75[#]	
<i>Panicum maximum</i>	Guinea Grass	Basic	-	-	-	No varieties currently listed with ASA for certification in Australia
		Certified	40.0	0.7	25	
<i>Paspalum notatum</i>	Bahia Grass	Basic	60.0	2.0	60	
		Certified	60.0	2.0	60	
<i>Pennisetum clandestinum</i>	Kikuyu	Basic	95.0	1.0	60	
		Certified	95.0	1.0	60	
<i>Pennisetum glaucum</i>	Pearl Millet	Basic	99.0	0.5	75	
		Certified	99.0	0.5	75	
<i>Phalaris aquatica</i>	Phalaris	Basic	99.0	0.3	70	Nominated species – See Table 1 & Note 3
		Certified	97.0	1.0	70	
<i>Setaria incrassata</i>	Purple Pigeon Grass	Basic	-	-	-	No varieties currently listed with ASA for certification in Australia
		Certified	80.0	3.0	40	
<i>Setaria sphacelata</i>	Setaria	Basic	60.0	1.2	20	
		Certified	60.0	1.2	20	

Species		Class	Min % Pure Seed	Max % Other Seed	Min % Germ	Other Conditions / Comments
LEGUMES						
<i>Aeschynomene americana</i>	Joint Vetch	Basic Certified	- 95.0	- 2.0	- 50	No varieties currently listed with ASA for certification in Australia
<i>Biserrula pelecinus</i>	Biserrula	Basic Certified	98.0 98.0	0.5 0.5	70 70	
<i>Lathyrus sativus</i>	Grass Pea	Basic Certified	98.0 98.0	0.5 1.0	75 75	
<i>Leucaena leucocephala</i>	Leucaena	Basic Certified	- 98.0	- 1.0	- 60	No varieties currently listed with ASA for certification in Australia
<i>Macroptilium atropurpurea</i>	Siratro	Basic Certified	97.5 97.5	1.0 1.0	70[#] 70[#]	# Including Hard Seed. # Including Hard Seed.
<i>Medicago sativa</i>	Lucerne	Basic Certified	99.0 98.0	0.1 0.5	70[#] 70[#]	# Including Hard Seed. # Including Hard Seed.
<i>Medicago spp..</i>	Annual Medics	Basic Certified	99.0 98.0	0.2 2.0*	70 70	Nominated species – Burr medic (See Note 3) * To include not more than 0.5% seeds other than <i>Medicago polymorpha</i> (Burr medic).
<i>Ornithopus compressus</i>	Yellow Serradella	Basic Certified	90.0 90.0	1.0 1.0	75[#] 75[#]	#Including Hard Seed. #Including Hard Seed.
<i>Ornithopus pinnatus</i>	Slender serradella	Basic Certified	90.0 90.0	1.0 1.0	75[#] 75[#]	#Including Hard Seed. #Including Hard Seed.
<i>Ornithopus sativus</i>	French serradella	Basic Certified	90.0 90.0	1.0 1.0	75[#] 75 [#]	#Including Hard Seed. #Including Hard seed.
<i>Stylosanthes guianensis</i>	Stylosanthes	Basic Certified	- 90.0	- 3.5	- 60 [#]	No varieties currently listed with ASA for certification in Australia #Including Hard seed.

Species		Class	Min % Pure Seed	Max % Other Seed	Min % Germ	Other Conditions / Comments
<i>Stylosanthes hamata</i>	Caribbean Stylo	Basic Certified	90.0 90.0	3.5 3.5	60[#] 60[#]	#Including Hard Seed. #Including Hard Seed.
<i>Trifolium alexandrinum</i>	Berseem Clover	Basic Certified	99.0 98.0	0.2 1.0	80 80	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium dasyurum</i>	Eastern Star Clover	Basic Certified	98.0 98.0	1.0 1.0	65 65	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium fragiferum</i>	Strawberry Clover	Basic Certified	99.0 98.0	0.3 1.0	60 60	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium glanduliferum</i>	Gland Clover	Basic Certified	98.0 98.0	1.0 1.0	65 65	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium hirtum</i>	Rose Clover	Basic Certified	98.0 98.0	1.0 1.0	70 70	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium incarnatum</i>	Crimson Clover	Basic Certified	98.0 98.0	1.0 1.0	65 65	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium michelianum</i>	Balansa Clover	Basic Certified	99.0 98.0	0.2 1.0	65 65	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium pratense</i>	Red Clover	Basic Certified	99.0 97.0	0.2 0.5	60 60	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium purpureum</i>	Purple Clover	Basic Certified	98.0 98.0	1.0 1.0	65 65	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium repens</i>	White Clover	Basic Certified	99.0 97.0	0.2 2.0	60 60	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium resupinatum</i>	Persian Clover	Basic Certified	99.0 98.0	0.2 1.0	60 60	Nominated species – other <i>Trifolium</i> spp. (See Note 3)

Species		Class	Min % Pure Seed	Max % Other Seed	Min % Germ	Other Conditions / Comments
<i>Trifolium spumosum</i>	Bladder Clover	Basic Certified	99.0 98.0	1.0 1.0	65 65	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium semipilosum</i>	Kenya White Clover	Basic Certified	- 97.0	- 1.0	- 50	No varieties currently listed with ASA for certification in Australia Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Trifolium subterraneum</i>	Subterranean Clover	Basic Certified	99.0 98.0	0.1 0.5	70 70	
<i>Trifolium vesiculosum</i>	Arrowleaf Clover	Basic Certified	99.0 98.0	1.0 1.0	60 60	Nominated species – other <i>Trifolium</i> spp. (See Note 3)
<i>Vicia</i> spp. (other than <i>V. faba</i>)	Vetch (incl. Purple and Woolly Pod)	Basic	99.0	0.5*	65	*To include not more than 0.1% seeds other than other <i>Vicia</i> spp.
		Certified	99.0	1.0*	65	*To include not more than 0.5% seeds other than other <i>Vicia</i> spp.

Species		Class	Min % Pure Seed	Max % Other Seed	Min % Germ	Other Conditions / Comments
FIELD CROPS & OTHER SPECIES						
<i>Avena sativa</i>	Oats	Basic Certified	99.0 98.0	10/kg 15/kg	85 85	Nominated species – See Table 2 Nominated species – See Table 2
<i>Brassica napus</i> var. <i>oleifera</i>	Canola	Basic Certified	99.0 99.0	10/kg 20/kg	85 85	Nominated species – See Table 2 Nominated species – See Table 2
<i>Carthamus tinctorius</i>	Safflower	Basic Certified	- 99.0	- 15/kg	- 70	No varieties currently listed with ASA for certification in Australia Nominated species – See Table 2
<i>Cicer arietinum</i>	Chick Peas	Basic Certified	99.0 98.0	10/kg 15/kg	70 70	Nominated species – See Table 2 Nominated species – See Table 2
<i>Gossypium spp.</i>	Cotton	Basic Certified	99.0 98.0	15/kg 15/kg	80 80	
<i>Helianthus annuus</i>	Sunflower	Basic Certified	97.0 97.0	0.2 0.2	75 75	
<i>Hordeum vulgare</i>	Barley	Basic Certified	99.0 98.0	10/kg 15/kg	85 85	Nominated species – See Table 2 Nominated species – See Table 2
<i>Lens culinaris</i>	Lentils	Basic Certified	99.0 98.0	10/kg 15/kg	70 70	Nominated species – See Table 2 Nominated species – See Table 2
<i>Linum usitatissimum</i>	Linseed (Incl. Linola)	Basic Certified	- 99.0	- 20/kg	- 85	No varieties currently listed with ASA for certification in Australia Nominated species – See Table 2
<i>Lupinus spp.</i>	Lupins	Basic Certified	99.0 98.0	10/kg 15/kg	70 70	Nominated species – See Table 2 In WA – Bitter lupins Max 1/10kg. CMV testing is mandatory – infection level to be reported. Nominated species – See Table 2 In WA – Bitter lupins Max 1/10kg. CMV testing is mandatory – infection level to be reported.

Species		Class	Min % Pure Seed	Max % Other Seed	Min % Germ	Other Conditions / Comments
<i>Phaseolus radiatus</i>	Mung Bean	Basic Certified	99.0 99.0	0.4 0.4	85 85	
<i>Pisum sativum</i>	Field Peas	Basic Certified	99.0 98.0	10/kg 15/kg	70 70	Nominated species – See Table 2 Nominated species – - See Table 2
<i>Raphanus sativus</i> var. <i>oleiformis</i>	Fodder Radish	Basic Certified	97.0 97.0	1.0 1.0	80 80	
<i>Secale cereale</i>	Ryecorn	Basic Certified	99.0 98.0	10/kg 15/kg	85 85	Nominated species – See Table 2 Nominated species – See Table 2
<i>Sorghum bicolor</i>	Sorghum	Basic Certified	99.0 98.0	10/kg 15/kg	85 85	Nominated species – See Table 2 Nominated species – See Table 2
<i>Sorghum sudanense</i>	Sudan Grass	Basic Certified	98.0 98.0	0.4 0.4	70 70	
<i>Sorghum sudanense</i> <i>x S. bicolor</i>	Hybrid Sorghum	Basic Certified	98.0 98.0	0.4 0.4	85 85	
<i>Triticum aestivum</i>	Wheat	Basic Certified	99.0 98.0	10/kg 15/kg	85 85	Nominated species – See Table 2 Nominated species – See Table 2
<i>x Triticosecale</i>	Triticale	Basic Certified	96.0 96.0*	10/kg 15/kg	85 85	Nominated species – See Table 2 *Including max. 2.0% broken seed. Nominated species – See Table 2
<i>Vicia faba</i>	Faba Beans	Basic Certified	99.0 98.0	10/kg 15/kg	70 70	Nominated species – See Table 2 Nominated species – See Table 2
<i>Vigna mungo</i>	Black Gram	Basic Certified	99.0 99.0	0.4 0.4	85 85	
<i>Zea mays</i>	Maize & Sweet Corn	Basic Certified	- 99.0	- Nil	- 85	No varieties currently listed with ASA for certification in Australia

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

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

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		Other Grain Legumes		Wild Oats		<i>Lolium</i> and <i>Phalaris</i> spp. (in total) Max No/kg		Vetch (all species) Max No/kg			
	Max No/kg		Max No/kg		Max No/kg		Max No/kg		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: NIL <i>Brassica juncea</i>, <i>B. hirta</i>, <i>B. tournefortii</i>, <i>B. oxyrrhina</i>, <i>Raphanus raphanistrum</i>, <i>R. rugosum</i> & <i>Sisymbrium</i> 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 2010 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 2010 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. Certification Agencies are required to consult with the CEO of ASA before approving the use of Basic Seed of a lower quality than the applicable quality standard contained in the ASA Technical Standards.

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Compiled by the Australian Seeds Authority Ltd – April 2010.