

# **AUSTRALIAN PULSE STANDARDS 2016/2017**

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# AUSTRALIAN PULSE STANDARDS 2016/17 SEASON

## SECTION 1 INTRODUCTION

Pulse Australia has compiled these Standards after extensive consultation with all sectors of the Australian Pulse Industry. It is hoped that they will facilitate the desire of the Australian pulse industry to provide consistent product of the highest quality into the world market.

Please note that there have been some changes to the Standards from previous editions to better reflect the trade of pulses today. All sectors of the industry are encouraged to familiarise themselves with both format and content. Any comments or queries regarding these Standards should be directed to Pulse Australia.

It is understood that as minimum Standards they may not be tight enough for the requirement of some buyers. Suitable qualifications to any Standard can be made as agreed between all parties concerned to represent the basis for better quality consignments.

It should also be understood that these are Australian industry Standards. While they take into account specific overseas country quarantine restrictions (such as prohibited weed seeds, disease status or contaminant levels) or the requirements of the Export Control Act (1982) and its subordinate legislation, the Standards may not meet the requirements of the importing country. Individual commodity traders are responsible for ensuring that specific country requirements and those pertaining to compliance with the Export Control Act (1982) are included as additional specifications on the contract. For additional information on specific country requirements, or other information on export certification issues, refer to the importing country Quarantine Authority and the Department of Agriculture and Water Resources Plant Export **Operations** MICoR database located at: http://micor.agriculture.gov.au/Plants/Pages/default.aspx

It is recommended that all grain exporters and container packers actively participate in the NRS grains residue monitoring program. Contravention of an overseas MRL may cause the rejection of cargoes resulting in severe financial cost being incurred and potentially jeopardising Australian grain into that market. Information about the NRS is located: <a href="http://www.agriculture.gov.au/ag-farm-food/food/nrs/plant-product-testing">http://www.agriculture.gov.au/ag-farm-food/food/nrs/plant-product-testing</a>

Pulse Australia gratefully acknowledges the efforts of all sectors of the industry in the compilation of these Standards.

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## SECTION 2 PULSE AUSTRALIA

PULSE AUSTRALIA is a peak industry body that represents all sectors of the pulse industry in Australia, from growers and agronomists through to researchers, merchants, traders and exporters. It is unique amongst peak bodies in that it is an independent, non-political and a whole of industry organisation, which acts as a catalyst for the development of the pulse industry.

A Board of Directors is nominated from the whole of industry to provide direction and vision. The directors bring skills and knowledge from many areas of interest including pulse farming, pulse research, seed merchandising, marketing and exporting. The Grains Research and Development Corporation also nominate one Director.

The broad long-term goals of Pulse Australia are to:

- Distinguish Australian Pulse products in the international market place.
- Develop and maintain existing and new markets.
- Address any weak links in the pulse value chain.
- Provide coordinated leadership and planning.
- Encourage world's best practice throughout the whole industry.
- Foster and maintain grower confidence.
- Ensure a reliable production base of consistent and safe pulse crops that meet customer requirements.

PULSE AUSTRALIA'S role takes a three pronged approach to ensure the overall objectives are met in all areas of the industry:

### Crop Support

Qualified field staff provides the catalyst for coordination of information across state and institutional boundaries actively supporting farmers and agronomists to ensure confidence, sustainability and consistency of pulse production.

#### Industry Support

Fundamentally is about filling the gaps. That is, the provision of the means to create essential linkages along the value chain.

#### Market Support

Providing a single voice for industry in the areas of market access and development and negotiating with governments and other industry bodies both domestically and internationally.

The pulse industry's growth is increasingly becoming a key to the future sustainability of the whole Australian grains industry at the strategic importance of pulses within the cereal cropping system in Australia continues to grow. Research has shown that farm systems achieve substantial benefit from the increased yield and protein content in cereal and oilseed crops that are planted following pulse crops.

Australian pulse production has grown In 1990 total production dramatically. amounted to only 1.3 million tonnes of pulses. By the turn of the century pulses represented 2.245 million hectares throughout the country, producing around 2.5 million tonnes of grain with a commodity value of over A\$675 million. and an additional farm system benefit of around A\$300 million. The potential for the pulse crop in Australia, assuming constraints are overcome, is to increase its current size to 4.2 million hectares, with a commodity value of A\$1.504 billion and a farm system benefit of A\$538 million - a total of over A\$2 billion.

## SECTION 3 PULSE DEFINITIONS

#### A. General

The following definitions have been created to assist in classification of individual pulse grains when using these Standards. The definitions are a general guide and industry should note that differences to definitions may apply to individual commodities. Pulse Australia Reference Visual Quality Charts or GTA Visual Recognition Standards Guides, the applicable Standards and Classification Procedures should also be referred to where available for further guidance on classifying individual grains in a sample.

It should be noted that the following Defect definitions are to be read in conjunction with the images displayed in the GTA Visual Recognition Standards Guide for Grain Commodity Sampling and Assessment located on the GTA website at <a href="www.graintrade.org.au">www.graintrade.org.au</a>. The images in that document for the applicable pulse commodities display the minimum and/or maximum coverage and attributes of the Defects as defined in these standards.

Where an image appears in the GTA Visual Recognition Standards Guide, this over-rides any previously produced Pulse Australia Visual Quality Charts or photographs for the applicable commodity and defect type.

## B. Defective Quality Parameters

The following tables provide the definition and additional explanatory details of various quality parameters included in the total category of "Defective". A summary table is at the end of this Defective Quality Parameters definitions section.

Definitions for Defects apply to the entire seed coat and/or kernel, depending on the defect type and grain type.

## Sizing of Defect

The size of the quality issue on the seed coat or kernel determines if it is categorised as a defect. As defined in the tables below, a specific quality parameter will only be classified as a defect if its presence exceeds 20% of any one side of the grain even if that defect is absent or if the coverage is 20% or less on the other side.

As an example, for an Ascochyta lesion on a Red Lentil, in the following table:

- Highlighted in red is where the grain will be classified as defective due to the large size of the lesion i.e., it exceeds 20%
- Highlighted in green is where the grain will not be classified as defective due to the small size of the lesion i.e., it is 20% or less

Relevant Information when classifying grain		Considered an
Lesion Size - Side 1	Lesion Size - Side 2	Ascochyta Lesion?
5%	15%	N
15%	15%	N
20%	20%	N
25%	5%	Y
30%	10%	Y
10%	30%	Y

### **Defects on Kernels**

Where a tolerance is stated for kernels, seed coats must be removed to identify the presence of the defect. Where the defect is present on the kernel, the grain is classified as Defective except when assessing Poor Colour, where a tolerance may apply. For the definition of Poor Colour, refer to the applicable Standard and grain type.

#### 1. ASCOCHYTA

Parameter	Definition
Cause	Is a fungal disease that attacks plant foliage and seed pods
Physical Description	Lesions are generally visible to the naked eye. The lesion generally appears intense dark brown to black and often fluoresces. It is commonly oval to circular and localised in nature, but may vary in shape. The lesion may be similar in colour to mould or weather damaged. The lesion may also be associated with the presence of fungal growth of various colours. A lesion may appear on one or both sides of the seed coat or kernel.
Presence on Seed Coat	Lesion greater than 20% coverage on any one side of the seed coat for all pulses except desi chickpeas. For all grains, the visual presence of any level of fungal growth associated with mould is considered defective. Refer also to the Visual Recognition Standards Guide or Pulse Australia Visual Quality Chart. Refer also to Point 12 - Stained and Weather Damaged. For Desi Chickpeas, any lesion of any size is permitted and not classified as Ascochyta provided it is not also present on the kernel. For Desi Chickpeas, if the Ascochyta seed coat lesion is >20% but does not penetrate to the kernel (and thus fall under the Ascochyta definition), then the grain is classified as Stained & Weather Damaged and is classified as defective.
Presence on Kernel	Any lesion of any size present on the kernel is classified as defective.

# 2. MOULD (FIELD and/or STORAGE), CAKED, BIN BURNT & HEAT DAMAGED

Parameter	Definition
Cause	<ul> <li>A range of causes including:</li> <li>Exposure to bacteria or fungi in the field or in storage.</li> <li>Exposure to severe heat during storage. Heating occurs via mould damage or incorrect drying of high moisture grain.</li> <li>Heat, subsequent mould attack and high moisture conditions may lead to adherence of foreign material or joining of mouldy grains.</li> </ul>
Physical Description	<ul> <li>Depending on the cause, may appear as:</li> <li>Mould is usually indicated by blackening, discolouration of all or part of the seed coat or kernel. Grains may be soft but may also appear hard after drying out.</li> <li>Fungal growth may be visibly apparent on the seed coat or kernel as a fungus of various colours.</li> <li>Foreign material may adhere to the seed coat and visually detract from the appearance.</li> <li>The seed coat or kernel appears reddish-dark brown and blackened or burnt in severe cases.</li> <li>These grains may be similar in appearance to Poor Colour brown seeds. This definition does not include Ascochyta lesions. An Objectionable Odour must not be detected.</li> </ul>
Presence on Seed Coat	Any damage to the seed coat is classified as defective. Refer to the GTA Visual Recognition Standards Guide or Pulse Australia Visual Quality Chart.
Presence on Kernel	Any damage to the kernel is classified as defective. Refer to the GTA Visual Recognition Standards Guide or Pulse Australia Visual Quality Chart.

## 3. BROKEN/CHIPPED/LOOSE SEED COAT & SPLIT

Parameter	Definition	
Cause	Damage due to poor harvesting and/or handling techniques. Late	
	harvesting may exacerbate this defect.	
Physical	Breakage, cracking, peeling or splitting of the seed coat or	
Description	chipping and splitting of the kernel in various forms. Damage to the	
	seed coat may be referred to as loose seed coat or skin damage.	
	Damage to the kernel may be referred to as chipped or scratched.	
Presence	Includes the following:	
on Seed	<ul> <li>Split Seed Coat - A Split in the seed coat running more</li> </ul>	
Coat	than half the entire length or across more than half the	
	entire width on one or both sides.	
	<ul> <li>Skin Damaged - A hole in the seed coat where more than</li> </ul>	
	20% of the seed coat on any one side is missing (Where	
	the entire seed coat is not present, it is often referred to as	
	Missing Seed Coat).	

As at 1 August 2016

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	<ul> <li>Loose Seed Coat (Peeling) - Where the seed coat is visibly</li> </ul>	
	falling off the kernel to any extent and not adhering tightly	
	to the kernel.	
	<ul> <li>Missing Seed Coat - Where the entire seed coat is missing</li> </ul>	
	but the kernel is intact.	
	Refer also to the GTA Visual Recognition Standards Guide or	
	Pulse Australia Visual Quality Chart	
Presence	Any damage to the kernel is classified as defective. Includes the	
on Kernel	following:	
	<ul> <li>Chipped (Scratched) – A part of the kernel is damaged or</li> </ul>	
	removed.	
	<ul> <li>A Split where the kernel is separated into two halves.</li> </ul>	
	Pieces may be whole or partial. Seed coat may adhere to	
	the kernel pieces (Caps).	
	Refer also to the GTA Visual Recognition Standards Guide or	
	Pulse Australia Visual Quality Chart.	

# 4. GREEN GRAINS – Desi Chickpeas

Parameter	Definition
Cause	Premature ripening of the desi chickpea grain.
Physical	Seed coats or kernels appear green. Where any greenish tinge is
Description	present on the seed coat, it is recommended the kernel also be
	inspected.
Presence	More than a slight greenish tinge must be present to be classified
on Seed	as defective. Refer also to the GTA Visual Recognition Standards
Coat	Guide.
Presence	Any damage to the kernel is classified as defective.
on Kernel	

# 5. HAIL DAMAGED - Desi Chickpeas

Parameter	Definition
Cause	Damage by hail.
Physical Description	Damage to the seed coat or kernel. Damage to the seed coat can appear as bruising (darkening) or in more severe cases splitting of the seed coat. This may cause discolouration and damage to the kernel. Damage to the kernel can vary from bruising (darkening) to physical damage such as crushing of the entire kernel.
Presence on Seed Coat	Any damage to the seed coat is classified as defective. Refer also to the GTA Visual Recognition Standards Guide.
Presence on Kernel	Any damage to the kernel is classified as defective.

## 6. INSECT DAMAGED

Parameter	Definition	
Cause	Damage due to any insect such as Pea Weevil, Etiella grub and	
	Heliothis eating the seed coat or more commonly, the kernel.	
Physical	The seed coat and kernel have a chewed appearance. Kernels	
Description	may contain holes as a result of insects boring through the kernel.	
	Mechanical damage resulting in Broken or Split grains is not	
	included in this definition.	
Presence	Any damage to the seed coat is classified as defective. Damage	
on Seed	generally also occurs under the seed coat and is obvious on the	
Coat	kernel. Refer also to GTA Visual Recognition Standards Guide or	
	Pulse Australia Visual Quality Chart.	
Presence	Any damage to the kernel is classified as defective. Refer also to	
on Kernel	the GTA Visual Recognition Standards Guide or Pulse Australia	
	Visual Quality Chart.	

## 7. SAPPY

Parameter	Definition
Cause	Are those grains that have been harvested before maturity.
Physical	Grains are generally soft when pressed.
Description	
Presence	Any level of sappiness is classified as defective.
on Seed	
Coat	
Presence	Any level of sappiness is classified as defective.
on Kernel	

# 8. FROST DAMAGED, SHRIVELLED & WRINKLED

Parameter	Definition
Cause	Damage has occurred during the maturation phase due to some
	form of environmental or agronomic stress such as frost.
Physical	Visible damage to the seed coat or size and shape of grain
Description	whereby the grains are severely distorted and/or shrunken. Seed
	coats may tightly adhere to the kernel or be brittle. Seed coats
	may show a level of discolouration depending on the extent of
	damage. Grains are often smaller than the majority in the sample.
	For some commodities, these small grains may fall through the
	screen and be classified as Defective.
Presence	A distinct ridge (often described as mountains and valleys) on the
on Seed	seed coat must be present to be classified as Frost Damaged,
Coat	Shrivelled & Wrinkled. Ridges may be described as coarse waves
	rather than soft waves. Seed coats may be wrinkled or dimpled
	and distinctly indented into the kernel. Seed coats with a slight
	degree of indentations are not included in this definition. Refer also
	to the GTA Visual Recognition Standards Guide or Pulse Australia
	Visual Quality Chart.

Presence	A distinct indentation on the kernel.
on Kernel	

## 9. SPROUTED

Parameter	Definition		
Cause	Damage due to wet weather conditions during maturation. Also		
	occurs through moisture ingress when in storage.		
Physical	The seed coat has split and the primary root has emerged. This		
Description	includes early and any further advanced stage of growth of the		
	primary root. Includes grains where the primary root has been		
	knocked off during the harvesting or handling process.		
Presence	Any visual presence of the primary root through the seed coat is		
on Seed	classified as defective. Refer also to the GTA Visual Recognition		
Coat	Standards Guide or Pulse Australia Visual Quality Chart.		
Presence	Any visual presence of the primary root through the seed coat is		
on Kernel	classified as defective. Kernels may also be soft to the touch.		
	Refer also to the GTA Visual Recognition Standards Guide or		
	Pulse Australia Visual Quality Chart.		

## 10. STAINED & WEATHER DAMAGED

Parameter	Definition	
Cause	Damage has occurred during the maturation phase due to some	
	form of disease, weather event or stress prior to harvest.	
Physical	A general term used to describe visible damage to the seed coat	
Description	or kernel that may or may not otherwise be defined or be	
	distinguishable from other defects in these Standards. Seed coats	
	and kernels may be discoloured or altered in size or shape.	
	Weather damage may also lead to Poor Colour, a Loose Seed	
	Coat, Shrivelled and Wrinkled.	
Presence on	Discolouration of the seed coat of various shapes and shades.	
Seed Coat	Generally is a dark brown to black colour depending on the pulse	
	type. May be on one or more sides. Depending on the intensity	
and the pulse type, generally must be greater than 20% of the surface area on any one side of the seed coat. Refer also to		
	Quality Chart.	
	For Desi Chickpeas, if the Ascochyta seed coat lesion is >20% but	
	does not penetrate to the kernel (and thus fall under the Ascochyta	
	definition), then the grain is classified as Stained & Weather	
	Damaged and is classified as defective.	
Presence on	Any damage to the kernel is classified as defective.	
Kernel		

## 11. POOR COLOUR

Parameter	Definition		
Cause	Rapid, premature ripening. Discolouration may also arise through		
	weather conditions, disease or during the storage period		
Physical	Poor Colour seed coats or kernels are not considered good colour.		
Description	Seed coats and kernels vary from white to dark brown/black		
	depending on the pulse type. Refer to each Standard and Visual		
	Quality Chart for further information. Seed coats and kernels may		
	be similar in appearance to various other defects such as Mould		
	(Field and/or Storage) / Caked / Bin Burnt & Heat Damaged or		
	Stained & Weather Damaged. Does not include Contrasting		
Ducasa	Colour. Refer also to the definition for Contrasting Colour.		
Presence	Refer to each Standard and the GTA Visual Recognition		
on Seed	Standards Guide or Pulse Australia Visual Quality Chart for further		
Coat	information.		
Presence	Refer to each Standard and the GTA Visual Recognition		
on Kernel	Standards Guide or Pulse Australia Visual Quality Chart for further		
	information. Seed coat must be removed to determine the		
	presence on the kernel.		
	ific Definitions not elsewhere listed		
Faba	Grey seed coats due to staining from the seed pod lining. Refer to		
Beans	the GTA Visual Recognition Standards Guide.		
Faba	Pea Seed Borne Mosaic Virus – Staining on the seed coat caused		
Beans	by the Pea Seed Borne Mosaic Virus. Refer to the GTA Visual		
	Recognition Standards Guide.		
Desi	Seed coat – is included under Total Defects, generally described		
Chickpeas	as Stained/Weather Damaged.		
	Kernel – a separate tolerance exists under the Total Defects		
	category.		
	Refer to the GTA Visual Recognition Standards Guide.		

# 12. Defect Varietal Variation 1 – Blondes in Aldinga Red Lentils

Parameter	Definition	
Cause	A defect causing discolouration of the kernel that may be genetic	
	but potentially influenced by seasonal conditions.	
Physical	Kernels are not uniformly orange in colour and portions of the	
Description	kernel appear yellow.	
Tolerances	The 'blondes' count is to be included in the total count for	
to apply	Defectives. It is not classified as Poor Colour.	
Presence	n/a	
on Seed		
Coat		
Presence	Kernels are not uniformly orange in colour. Kernels appear yellow.	
on Kernel	Seed coat must be removed to determine the presence on the	
	kernel. Refer also to the GTA Visual Recognition Standards Guide.	

# 13. Defect Varietal Variation 2 – Orange Tip in Red Lentils

Parameter	Definition		
Cause	A defect causing discolouration of the seed coat caused by		
	seasonal conditions. It may or may not be a pre-cursor to		
	sprouting.		
Physical	Seed coats have varying degrees of orange colour, generally in		
Description	the germ area.		
Tolerances	Orange tip is to be included in the count for Total Defectives. It is		
to apply	not classified as Poor Colour.		
Presence	Seed coats appear orange in colour. Refer also to the GTA Visual		
on Seed	Recognition Standards Guide.		
Coat			
Presence	n/a		
on Kernel			

#### C. SUMMARY TABLE FOR DEFECT CATEGORIES

The following is a table summarising the categories listed within Defective pulses.

Note that this table refers to the presence on the entire grain (seed coat or kernel). Variations may exist for some pulses, including but not limited to Mung Beans and mechanically processed commodities such as Split product. Refer to the applicable Standard for the tolerances to apply for each Defect.

Where the statement includes:

- Refer to Definition or Standard refer to the Definition and relevant description in the applicable commodity Standard
- Refer to Visual Chart refer to the relevant Pulse Australia Visual Quality Chart or GTA Visual Recognition Standards Guide for further guidance

Defect Type	Pulse Type	Seed Coat	Kernel	
,,	,,	Classified Defective if	Classified Defective if	
		greater than	greater than	
<b>General Defects</b>				
Ascochyta	All pulses	20% on any one side all	Nil (any presence)	
•	except desi	pulses except desi chickpeas		
	chickpeas			
	Desi chickpeas	n/a		
Broken, Chipped,	All pulses	Refer to Definition and Visual	Nil (any presence)	
Loose Seed Coat		Chart		
& Split				
Green	Desi Chickpeas	More than a slight greenish	Nil (any presence)	
		tinge		
Poor Colour	All pulses	Refer to Standard & Visual	Refer to Standard &	
		Chart	Visual Chart	
Frost Damaged,	All pulses	Distinct Ridge or indentations	Distinct indentation	
Shrivelled &				
Wrinkled	All and a second	Defende Oferedend O. Viewel	Datanta Ota alami	
Mould (Field	All pulses	Refer to Standard & Visual	Refer to Standard &	
and/or Storage),	except	Chart	Visual Chart	
Caked, Bin Burnt &	Mungbeans			
Heat Damaged Stained & Weather	All pulses	Generally 20% on any one	Nil (any presence)	
Damaged	All pulses	side. Refer to Visual Chart	in (any presence)	
	Varietal Variation Defects			
Blondes	Aldinga Red	n/a	Nil (any presence)	
Dioridos	Lentils	Tiva	Tim (any presence)	
Orange Tip	Red Lentils	Refer to Visual Chart	Nil (any presence)	
Nil Tolerance Definition Defects				
Hail Damaged	Desi Chickpeas	Nil (any presence)	Nil (any presence)	
Insect Damaged	All pulses	Nil (any presence)	Nil (any presence)	
Sappy	All pulses	Nil (any presence)	Nil (any presence)	
Sprouted	All pulses	Nil (any presence)	Nil (any presence)	

## D. Quality Parameters – Other Definitions

Caps Are parts of the Seed Coat adhering to Split or Broken seed.

**Cereal Seeds** In relation to red lentils only refers to wheat, durum, barley, oats, sorghum,

triticale, cereal rye, maize and rice. Refer also to Appendix B.

Chemicals Not Approved Refers to those chemicals not permitted to be used on pulses or

those in excess of legal tolerances, including MRLs. Refer to Appendix A.

Contrasting Colour R

Refers to contrasting colour of the seed coat in the same variety. It is usually caused by a recessive gene in that variety. As there is no visible difference on the kernel it is not classified as Defective or Poor Colour. Tolerances apply to the maximum amount permitted in a sample. Refer to the reference Varietal Colour Chart or GTA Visual Recognition Standards Guide for a description of the applicable contrasting colours for each variety which depict the minimum and maximum amount of marbling permitted on a seed coat before being classified as contrasting colour.

**Cotyledon** Refer to the generally recognised term kernel.

**Defective**Refers to pulses that have been damaged to some degree due to a range of factors including but not limited to disease, environment, handling,

harvest, stress and a weather event.

Generally includes pulses not of the specified variety and seed coats or kernels that are:

Ascochyta affected	Insect Damaged
Blondes (Aldinga Red Lentils only)	Mould (Field and/or Storage),
	Caked, Bin Burnt & Heat
	Damaged
Broken/Chipped/Loose Seed	Orange Tip (Red Lentils only)
Coat/Split	
Diseased	Poor Colour
Frost Damaged, Shrivelled & Wrinkled	Sappy
Green	Sprouted
Hail Damaged	Stained & Weather Damaged

Defective may also include whole pods containing seed of the pulse being assessed and seed material passing through a specific sized screen. The definition may vary by defect type and pulse. Refer to the Definitions, each Standard and the Pulse Australia Visual Quality Chart or GTA Visual Recognition Standards Guide for further guidance.

**Field Insects** 

Are live or dead whole insect contaminants that do not cause damage to stored pulses. Pieces of Field Insects are included in Unmillable Material except for Grasshoppers and/or Locusts. Note that variations may exist to this definition for different Standards. Refer to Appendix C and each Standard for more detail.

#### Field Fungi

Staining on the seed coat or kernel that may or may not have been caused by the development of fungi during periods of high moisture. Refer to Stained & Weather Damaged for tolerances to apply.

#### **Foreign Material**

Refers to Unmillable Material and all vegetable material other than seed material (seed coats or kernels) of the pulse in question being sampled and assessed according to these Standards. This includes:

- Foreign Seeds (Weed seeds), including Small Foreign seeds
- Cereal seeds (red lentils only)
- Empty seed pods or pieces of seed pods of the pulse being assessed
- Empty seed pods, pieces of seed pods or seed pods containing seeds of all other weed seeds
- Seed attachments of the pulse being assessed
- Unmillable Material (Soil, sand, sticks etc.)
- Field Insects
- Grasshoppers and Locusts
- Ryegrass Ergot
- Snails
- Stored grain Insects (dead and pieces).

Foreign Material excludes pods containing seeds of the pulse being assessed as these are classified as Defective. Note there may be separate tolerances for parameters listed within Foreign Material.

#### **Foreign Seeds**

Are those seeds that are not the pulse being sampled and assessed according to these Standards. Tolerances for specified seeds are listed in Appendix B. Foreign Seeds may be detected both above and below the screen and are to be assessed in the entire sample. Foreign Seeds are included in the assessment of Foreign Material and may also be referred to as Weed Seeds.

#### **Good Colour**

Are those seed coats and kernels practically free from discolouration and have the uniform natural colour and appearance characteristic of the predominating pulse type within the sample of the pulse being assessed. The colour and thus definition may vary by pulse. Note that dark colours such as black may be excluded as the predominating colour depending on the pulse type. Refer to each Standard and Pulse Australia Visual Quality Chart or GTA Visual Recognition Standards Guide for details.

A thin, transparent seed coat may allow the orange kernel to show through in red lentil varieties such as Aldinga and Nugget, hence the seed appears 'orange'. This is deemed acceptable and not Poor Colour. For all commodities, seeds that have partial transparency but an acceptable kernel colour are deemed acceptable and of Good Colour. Refer also to Contrasting Colour.

As at 1 August 2016

Kernel

Refers to the inner part of a pulse that is contained under the seed coat. It may also be referred to as a Cotyledon. Note that any damage to the kernel results in that grain being classified as Defective except for Poor Colour.

**Loose Seed Coat** 

Refer to Broken/Chipped/Loose Seed Coat & Split

Manganese Deficiency In relation to Angustifolius lupins refers to splitting of the seed coat to expose the kernel. It is not considered a defect provided no damage to the exposed kernel has occurred. Refer to the GTA Visual Recognition Standards Guide for lupins.

Mechanical Damage In reference to Broad Beans means any cracking, splitting or removal of any part of the seed coat or kernel. For other pulses, refer to Broken/Chipped/Loose Seed Coat & Split.

Missing Seed Coat

Refers to those grains where the Seed Coat is partially or more usually, entirely missing. It may also be referred to as "Seed-Coatless". Refer to Broken/Chipped/Loose Seed Coat & Split. Refer also to each Standard and Pulse Australia Visual Quality Chart or GTA Visual Recognition Standards Guide for details.

**Moisture Content** 

The amount of water measured in a sample of pulses, being assessed according to these Standards.

Non-vegetable Matter Is a part of Unmillable Material. It refers to all non-organic material, including soil and stones. Different tolerances may apply depending on the material and pulse type.

Objectionable Material Refers to any objectionable foreign material that may or may not be otherwise stated in these Standards. Objectionable Material has the ability to degrade the hygiene of the pulse. It may become a food safety issue or may have a commercially unacceptable odour. Refer to Appendix A.

Objectionable Odour In the context of these Standards is a commercially objectionable odour and/or an odour not normally associated with the pulse in question. The Objectionable Odour may be caused by various means which may or may not be discernible in the sample being assessed. A nil tolerance applies. Refer to Appendix A.

Pea Weevil

Refers to any stage in the life cycle of insects of the species *Bruchus* pisorum. Pieces of Pea Weevil are included in Unmillable Material. Refer to Appendix C.

**Physical Characteristics** Is a general description of pulses. Usually describes the general appearance and overall condition relative to a particular variety of the relevant pulse type.

As at 1 August 2016

**Phomopsis** Is a fungal disease that causes various agronomic and quality issues in

pulses such as lupins. Refer to each Standard and the GTA Visual

Recognition Standards Guide for details.

Pickling Compounds Chemicals added to pulses as a seed dressing or as a seed treatment prior

to sowing. Usually are associated with a colouring agent. The presence of any amount of pickling compound is prohibited and a nil tolerance applies.

Refer to Appendix A.

Predominating Class Is used in reference to the determination of Poor Colour. Refers to the

overall colour of a sample where grains in the greatest quantity within the sample are considered to be Good Colour. The Predominating Class specifically excludes grains not considered to be Good Colour. Refer also

to Contrasting Colour.

**Purity** The amount of material of the particular pulse in question in the sample.

Purity includes the seed coat and kernel whether intact or defective. It excludes all other plant material of the pulse in question. Purity is generally

the opposite of Foreign Material.

Ryegrass Ergot Is a contaminant resulting from the infection of ryegrass kernels by the

fungus Claviceps purpurea.

Seed Coat The outer surface of many pulses that envelopes the kernel. Its function is

to protect the kernel from splitting or being damaged. The seed coat is

often paper-thin.

**Seed Material** Whole or pieces of seed coats and kernels of the pulse being assessed.

Seed Pod The protective enclosure, shell, or case surrounding a seed or a number of

seeds.

**Skinless** Refers to those kernels with a Missing Seed Coat. Refer to Broken /

Chipped / Loose Seed Coat & Split.

Small Foreign Seeds Are seeds that are not the pulse being sampled and have a tolerance

specified in Appendix B. Seeds collect in the catch pan during the

Screening process. Small Foreign Seeds are included in the assessment of

Unmillable Material.

Snails Refers to whole or substantially whole (more than half) empty snail shells,

bodies or bodies with shells, irrespective of species. Tolerances generally apply to live and dead snails. Pieces of material not defined as a Snail (i.e.,

smashed snail shells that remain in the sample after cleaning) are

classified as Unmillable Material.

**Soil** Is generally regarded as unconsolidated mineral or organic material. Soil

comprises clumps or grains of earth and grains of sand. No size limit applies. Is included in the definition of Unmillable Material however a

separate tolerance for Soil generally applies. Refer to point 14 of the Procedures.

#### Speckling

Speckling arises from a genetic stress during maturation or may be a genetic characteristic of that variety. It does not refer to black grains for which a tolerance may apply in the Poor Colour category. If the kernel is blemished, it is included in the definition of Defective. Speckling is not considered a defect if the kernel remains unblemished.

Aldinga Red Lentils - commonly appears as dark spots on the seed coat or kernel. Spots may be few or cover a significant portion of the seed coat or

kernel. Refer to the GTA Visual Recognition Standards Guide.

Desi Chickpeas - commonly appears as small spots of any colour on the seed coat or kernel. Spots may be few or cover a significant portion of the seed coat. Refer to the GTA Visual Recognition Standards Guide.

Split Refer to Broken/Chipped/Loose Seed Coat & Split.

Sticks Refers to ligneous material of any size. Sticks are included in Foreign

Material.

**Stones** Refers to a lump or mass of hard consolidated mineral matter of any size.

Stones are included in Unmillable Material.

**Stored Grain Insects** Are insect contaminants that generally cause damage to the stored pulse.

There is a nil tolerance for live insects. Dead or pieces of Stored Grain Insects are included in Unmillable Material. Refer to Appendix A for a list of

the more common insects.

Tiger Striping In relation to Desi Chickpeas, Tiger Striping is typically due to a period of

high heat stress during grain maturation or is a varietal characteristic. It commonly appears as dark coloured lines of striping on the seed coat or kernel. Tiger Striping is not considered a defect. Refer to the GTA Visual

Recognition Standards Guide.

**Taint** Arises from contaminants imparting any smell or taint to the pulse. Includes

but is not limited to plant parts and seeds of *Eucalyptus spp.* Refer to

Objectionable Odour and Appendix A.

Unmillable Material Includes soil, sand, stones, pieces of snail, pieces of Stored Grain Insects,

pieces of Field Insects (except Grasshoppers and Locusts) and other non-vegetable matter. Refer also to Objectionable Material and Appendix A.

Variety This is the next lowest level taxonomic rank of a plant below that of the

term "species". Differing varieties have differing genetic compositions which may endow them with differing agronomic characteristics, and/or

differing end product quality characteristics.

Whole Refers to an individual pulse where the seed coat and kernel are entirely

100% present. If part of the seed coat or kernel has been removed due to

poor harvesting and handling techniques or through other means, then these are not considered Whole.

Whole Pods Refers to a f

Refers to a fully intact protective enclosure, shell, or case surrounding a seed. Whole pods may contain several seeds.

## E. Other Terminology

Acceptable Sampling Device Refers to any sampling device that obtains a representative

sample to be assessed as per these Standards. Refer to point 13 of Pulse

Classification Procedures.

Bulk Vessel A sea going vessel used to transport pulses. Pulses are stored loosely in

holds without being constrained within a receptacle such as a container or bags. Vessels usually have a number of separate holds or compartments.

Classification Procedures Refers to procedures outlined in this document used to sample

and assess the quality of pulses tendered for delivery or presented for

outturn or export.

**Container** A box like receptacle that stores pulses in a sealed environment for

transport. Containers are usually approximately 6.1m, 12.2m or 13.7m in

length.

**De-hulling** Is the process of removing the seed coat from the kernel. De-hulling is

required to assess the presence of particular defects such as Poor Colour

on the kernel.

**Export Standard** Refers to the Export Standards outlined in this document. Are Standards

that are applied to pulses when sold and transported to overseas markets.

Farmer Dressed Refers to pulses that have been harvested and have not subsequently

undergone any major cleaning or mechanical screening process to affect their quality. Pulses generally contain some Unmillable Material, Foreign

Material and Defective pulses.

**Grower Load Composite** A sample representing the entire load tendered for delivery.

Compiled by obtaining individual probe samples of the individual load (container, truck etc.) based on the tonnage each represents and

combining these samples to form one sample. For details, refer to Pulse

Classification Procedures.

Hold Sample A sample obtained from the hatch of a ship that represents the quality of

the pulse loaded within that hatch.

**Load** A road bulk unit tendered for delivery.

#### **Machine Dressed**

Refers to pulses that have undergone a significant quality transition via a mechanical operation such as cleaning to remove Foreign Material, Foreign Seeds or Defective pulses.

MRL

MRLs are the maximum amount of a chemical residue or its metabolite that is legally permitted on or in agricultural commodity. The Australian Pesticides and Veterinary Medicines Authority (APVMA) sets MRLs. These MRLs are set at levels which are not likely to be exceeded if the agricultural or veterinary chemicals are used in accordance with approved label instructions and can be found on the ComLaw website at the following address <a href="https://www.legislation.gov.au/Series/F2012L02501">https://www.legislation.gov.au/Series/F2012L02501</a>

Australian MRLs may differ significantly from those prescribed by foreign countries and the International Codex Alimentarius Commission. Consequently grain exporters must be aware of MRLs of importing countries and which countries accept Codex MRLs. Foreign country MRLs may be accessed directly from foreign government websites or the NRS grains database at

https://www.edaff.gov.au/NRSMRLExternal/Public/Disclaimer.aspx (Industry should confirm the accuracy of the MRL lists themselves).

**National Residue Survey** 

The National Residue Survey (NRS) gathers information and supplies chemical residue results on domestic and export grain commodities. Australian grain is of a high quality with respect to residues and contaminants. It is recommended all grain exporters, container packers, bulk export terminal operators, Bulk Handling Companies and processors actively participate in the NRS grains residue monitoring program. Contravention of an overseas MRL may cause the rejection of cargoes resulting in severe financial cost being incurred and potentially jeopardising Australian grain into that market. Information about the NRS is located: <a href="http://www.agriculture.gov.au/ag-farm-food/food/nrs/plant-product-testing">http://www.agriculture.gov.au/ag-farm-food/food/nrs/plant-product-testing</a>

Nil

Means a level of zero in a 200g or 400g sample representative of the entire load. Nil means not detected anywhere in the load or at any stage of the receival or outloading process.

Outturn

Process of loading the pulse from a storage unit into a transport unit, for eventual delivery to a domestic or international customer.

**Plant Export Operations** 

Agriculture and Water Resources (DAWR). Plant Export Operations provides import and export inspection and certification to help retain Australia's animal, plant and human health status. Plant Export Operations maintain the MICoR database guide listing importing country requirements. Refer to <a href="http://micor.agriculture.gov.au/Plants/Pages/default.aspx">http://micor.agriculture.gov.au/Plants/Pages/default.aspx</a>

Quarantine Requirements Are those parameters that are mandated by law by an importing country Government Quarantine Authority that must be met in order to permit entry of the particular pulse. Quarantine requirements are also

mandated in Australian Export Legislation. On export of pulses from Australia, these quarantine regulations are enforced by Plant Export Operations. Refer to Plant Export Operations.

**Receival Standard** 

Refers to the Receival Standards as outlined in this document. Receival Standards apply to the purchase of pulses from a grower or through the Trade.

**Representative Sample** A sub-sample of a parcel of pulses used for assessment purposes, which is representative of the entire pulse parcel.

Varietal Colour Charts

Using a physical description and photographs, these charts depict the normal colour and colour range of each variety where a tolerance for Contrasting Colour applies. The charts also indicate the colours that are considered as Contrasting Colour for which a tolerance may exist in the Standards. The charts are produced on behalf of industry by Pulse Australia in collaboration with the individual pulse breeder. There is a requirement for a chart to be produced for all varieties where a tolerance for Contrasting Colour exists. This parameter mainly relates to red lentils. Refer also to the GTA Visual Recognition Standards Guide.

Visual Quality Charts Charts that show quality parameters of various pulses and are used as an aid to classification. There are two types:

- Those produced by Pulse Australia on behalf of industry and agreed by industry (Visual Quality Charts)
- Those produced by industry and agreed by the Pulse Standards Committee, with the main one being the GTA Visual Recognition Standards Guide

Where available, the most recent version should be used and supersedes any prior version. Where new versions are not available, any previously produced versions apply.

Visual Recognition Standards Guide The Visual Recognition Standards Guide (VRSG) contains a range of photographs and illustrations to supplement the Standards as outlined in this booklet for particular pulse commodities. The most recent VRSG for pulses was released by Grain Trade Australia in August 2015 and can be obtained at the GTA website <a href="www.graintrade.org.au">www.graintrade.org.au</a>. Note that the version refers to 2015/16 as no changes have been made for the 2016/17 season.

## SECTION 4 PULSE CLASSIFICATION PROCEDURES

The following procedure is suggested as a general method for the classification of pulses from grower deliveries, and for export where applicable. It may need to be adapted to suit the assessment of some grades or types of pulses.

## Sampling

1. Sample the load presented for delivery at the rates listed below using an Approved Sampling Device (refer point 13). Each bulk unit tendered for delivery is to be probed as a separate unit.

Bulk Unit Size (i.e. truck / trailer)	Minimum Number of Samples	Minimum Sample Size
10 tonnes or less	3	3 litres
Over 10 tonnes up to 20 tonnes	4	4 litres
Over 20 tonnes up to 30 tonnes	5	5 litres
Over 30 tonnes up to 40 tonnes	6	6 litres
Over 40 tonnes up to 50 tonnes	7	7 litres
Over 50 tonnes up to 60 tonnes	8	8 litres

All samples collected from each bulk unit are to be combined and thoroughly mixed to produce a representative Grower Load Composite (GLC) sample. Where large samples are obtained in this manner or where high levels of Foreign Material are present in the sample, it is recommended that a suitable mechanical device is used for mixing and sub-dividing the sample.

- 2. From the GLC sample draw a representative sub-sample and test for moisture content.
- 3. From the GLC sample weigh a representative 200 gram or 400 gram sample depending on the grain type as per the following list:

200 gram Sample	400 gram Sample
Adzuki Beans	Broad Beans – whole and split
Caloona / Poona Cowpeas	Chickpeas – Kabuli Type No. 1 Grade Large*
Chickpeas – Desi Type	Faba Beans – whole and split
Chickpeas – Split Chana Dhal	Lupins – Albus
Chickpeas – Kabuli Type No. 1 Grade Small*	
Fenugreek	
Lentils – Whole Green	
Lentils – Whole Red	
Lentils – Split Red	
Lupins – Angustifolius	
Mung Beans	
Peas – Field	
Peas – Yellow Split	
Pigeon Peas	
Vetch	

Note - Small and Large Kabuli Chickpeas are listed on the Pulse Australia website at <a href="http://www.pulseaus.com.au">http://www.pulseaus.com.au</a>

- 4. Examine the contents of the sample for the presence of Objectionable Material and major contaminants such as live Stored Grain Insects, Snails, Sticks, Stones, Mould or Animal Excreta.
- 5. To assist in the separation of the pulse material from other material in the sample, various screens may be used. After sieving, the sample will still need to be hand-picked to separate the various fractions. Refer to the Forty Shakes Sieving method under point 13 of these Procedures.

#### **Defective Grains**

6. Note that variations to the assessment of Defective grains as outlined in the following procedure may apply depending on the pulse type.

Where required, depending on the Defect and grain type, the seed coat must be removed to examine the kernel for the presence of the Defect. This process is referred to as De-hulling. Refer to the De-Hulling method under point 17 of these Procedures.

#### General

- 6.1 Obtain a 200 gram or 400 gram sample to the nearest 0.1 gram, as required.
- 6.2 Examine material in the entire sample (including all trays) for the presence of Defects for which a nil tolerance applies.
- 6.3 The time taken to assess the sample for defects is unlimited.
- 6.4 The defective seed category includes all the defective seeds defined in the comments/variations section.
- Where a pulse seed has a defect listed in a separate category in the Standards, these must be counted separately and only counted in one defective category. It should be counted in the defective category that has the lowest tolerance for that applicable standard.
- 6.6 Both sides of the grain should be inspected to determine firstly whether a Defect is present and secondly to determine if it is in sufficient quantity as per the Definitions to classify as Defective.
- 6.7 Where low but acceptable levels of defects such as Ascochyta are found on the seed coat, it may be desirable for seed coats to be removed to determine the presence on the kernel.
- 6.8 If a separate tolerance for particular defects such as Ascochyta or Poor Colour is defined in the Standard, examine all the relevant trays or the entire 200 gram or 400 gram sample for the presence of the defect. Pick out the defective grains and weigh. Divide the weight by two for a 200 gram sample and by four for a 400 gram sample to calculate the % of the defective grains. This should generally be done before the assessment of total defects in the sample.
- 6.9 The percentage of the individual defect or Total Defects is calculated based on the weight of the individual defect or Total of all defects in the entire 200 gram or 400 gram sample.
- 6.10 For Mould (Field and/or Storage), Caked, Bin Burnt & Heat Damaged, the entire 200 or 400 gram sample is to be assessed for applicable commodities:
  - When assessing as per the Receival Standard, the number of grains in the entire sample with this defect are counted. The level found is not included in Total Defectives.
  - When assessing as per the Export Standard, the weight of grains as a percentage
    of the entire sample is to be determined. The level found is included in Total
    Defectives.

#### Where a Size Limit Applies:

- 6.11 Place the entire 200 gram or 400 gram sample onto the top of the appropriate screen(s):
  - The screen size for those commodities where one screen applies to all varieties is listed on each standards chart.
  - For red lentils a different screen size is to be used based on the variety as follows:

Aldinga 2.2mm All other varieties 2.0mm

- 6.12 Screen the sample using the automated or manual Forty Shakes Sieving Method see Point 13 below.
- Any pulse material (entire or pieces of kernel or seed coats) of the type being assessed that fall through the screen, including whole sound grains are classified as defective. Remove this material and place with material removed in 6.14 below.
- 6.14 Examine the material in the top tray (or middle tray if applicable) for the various Defects, pick out and weigh each Defect sub category.
- 6.15 Calculate the percentage by weight for each individual Defect and all defects in total (where applicable).

## Where a Size Limit Does Not Apply:

- 6.16 Hand-pick any Defective pulses from the entire 200 gram or 400 gram sample.
- 6.17 Weigh each Defect sub category and calculate the percentage by weight for each individual Defect and all defects in total (where applicable).

#### **Varietal Restriction**

7. For those commodities where a tolerance applies, examine material in the entire sample (including all trays) for the presence of varieties not of the declared variety.

### **Contrasting Colour**

8. For those commodities where a tolerance applies, examine material in the entire sample (including all trays) for the presence of Contrasting Colour. Refer to the reference Variety Colour Charts or GTA Visual Recognition Standards Guide to assist. Where low but acceptable levels are found on the seed coat, it may be desirable for seed coats to be removed to determine the presence on the kernel.

### **Foreign and Unmillable Material**

Note that variations to the following procedure may apply depending on the pulse type.

9. Examine the sample and pick out any Foreign Material. Where individual tolerances exist for categories within Foreign Material such as Snails, Field Insects, Grasshoppers or Locusts, Ryegrass Ergot, Unmillable Material and Foreign Seeds, these must be separated from the sample into their individual constituents. It may be easier to weigh each category separately to determine the level prior to combining all categories to determine the total Foreign Material. Divide the weight of each category and total weight of all categories combined by two for a 200 gram sample and by four for a 400 gram sample to calculate the % of each category and Foreign Material level combined – this is recorded as a % for all parameters except Ryegrass Ergot.

For Ryegrass Ergot, align all pieces end on end and measure the length in cm. Record to the nearest 0.1cm. This material is included in the total Foreign Material.

10. From the total Foreign Material, extract the Unmillable Material (or alternatively conduct this assessment prior to determining total Foreign Material). Using a device such as a colander, sieve this Unmillable Material to remove the soil. It may be necessary to continue to hand-pick soil from the sample to remove it all. Divide this number by two for a 200 gram sample and by four for a 400 gram sample to calculate the % of Soil within the Unmillable Material. Note that most Standards have a tolerance for Soil within the total Unmillable Material.

- 11. Examine all the trays or the entire 200 gram or 400 gram sample for the presence of nominated Foreign Seeds. Any Foreign Seed pods must be opened and the seeds counted except where pods have a specified tolerance. Most commodities have common tolerances for seeds in the entire 200gram or 400gram sample. Refer Appendix B for tolerances to apply.
  - For all pulses except Field Peas, where Field Peas are present in the sample, it is recommended these be broken open to determine the presence of live Pea Weevil. In most commodities, a nil tolerance applies. Where required additional Field Peas should be collected from the GLC sample or from the surface of the truck.
- 12. From the Foreign Seeds category, separate out any Small Foreign Seeds and weigh them. Again, a colander may assist in this task but hand-picking may still be required. Divide the weight by two for a 200 gram sample and by four for a 400 gram sample to calculate % Small Foreign Seeds.

## 13. "FORTY SHAKES" SIEVING METHOD

To be used for the assessment of Defective grains where all seed material of the pulse in question being assessed that fall below the screen is included in the definition for Defective.

#### **USE EITHER:**

An automatic shaking machine that correlates to the Manual Reference Method (B) below.

#### OR:

- (B) The Manual Reference Method as follows:
  - a) A 200 or 400 gram sample of grain shall be weighed on an appropriate balance that is accurate under the conditions of use to plus or minus 0.01 gram.
  - b) All screen surfaces (top, middle and/or bottom) shall be clean, smooth, dry and free of grain residue.
  - c) The sieving process shall occur on a flat and smooth screen movement table. Marks at each end of the table shall indicate a screen movement of thirty centimetres.
  - d) With the screen resting against one of the marks, the 200 or 400 gram sample of grain is to be placed in one movement centrally onto the surface of the screen. No additional movement or spreading of the sample over the screen surface is to occur.
  - e) Where applicable, with the slots facing away/towards the operator (top, middle and/or bottom), the screen shall be evenly moved forty times in a to and fro motion, that is, forty aways and forty returns in the direction of the slots and with the screen being moved on the surface of the screen movement table.
  - f) Each of the forty to and fro movements are to take one second, so that the complete screen movement process occupies forty seconds.
  - g) The front edge of the screen shall travel thirty centimetres forward and the same distance back.
  - h) At the completion of the forty to and fro movements, the screen shall be gently removed from the bottom catch pan.
  - i) Pulse seed material passing through the nominated screen into the catchpan must be separated into the various fractions as described by the relevant commodity Standard.

Note that during the process of shaking some commodities such as split product, care must be taken to not increase the level of defectives such as broken and splits (kibbled).

## 14. SOIL CONTAMINATION – IMPORTANT NOTE

Recognising the inevitability of a small level of Soil contamination at harvest, and in order to provide a practical standard that recognises both the difficulty for delivery of Farmer Dressed pulses completely free of Soil, and the requirement of most importing countries for zero tolerance of Soil in imported product:

- The Receival Standards for almost all Farmer Dressed pulses have been set at a maximum of 0.5% total Unmillable Material by weight, which includes a maximum of 0.3% of Soil by weight.
- For most Machine Dressed product the Export Standards have been set at a maximum of 0.1% of Unmillable Material by weight, which includes Soil.

Note there is no size limit on the definition of Soil.

These Pulse Standards have been set on the basis of past experience, which has shown that at the levels set, any Soil present at receival is likely to dissipate through the normal handling and/or settling processes to the point of being undetectable.

All industry participants should, however, be aware that most importing countries prohibit any Soil contamination whatsoever, and it is the responsibility of all individuals involved in the trade of pulses to confirm for themselves prior to shipment, that Soil levels in any consignment conform with the specifications of their contract and/or the legal requirements of the importing country and will pass the Plant Export Operations inspection process.

For further guidance on importing country quarantine requirements, refer to the Department of Agriculture and Water Resources MICoR database located at <a href="http://micor.agriculture.gov.au/Plants/Pages/default.aspx">http://micor.agriculture.gov.au/Plants/Pages/default.aspx</a>

## **Approved Sampling Devices**

15. Recognising industry uses various sampling devices to obtain samples of pulses in loads tendered for delivery, the following is a set of guiding principles that industry should refer to when sampling pulses and using these devices:

#### 15.1 General

- Industry is free to use any sampling device they require to obtain a representative sample of the load
- Probes should be operated only when safe to do so and according to company OH&S policy
- All probes and associated equipment should be clean, free of contaminants from prior loads, rust and chemical residues
- All probes and associated equipment should be thoroughly cleaned when the prior load has been rejected due to the presence of a nil tolerance parameter such as live Stored Grain Insects or weed seeds
- Probing of a load can only effectively commence when full access to the entire load is obtained
- If the entire load cannot be appropriately sampled, there is a risk of obtaining a sample that is not representative (i.e., if probe does not reach the bottom or near the bottom of the load on the side of the load away from the sampler)
- All probes should be placed into the load and pushed as far as possible into the load
- There is no maximum number of probes to be taken from a load. The minimum number of probes to be taken from a load as recognised by industry is outlined in point 1 of these Procedures

#### 15.2 Manual Probes

- Manual probes should be of sufficient length to reach at or near the bottom of the load
- Probes should be closed prior to inserting into or removing from the load
- Probes should be inserted in as near a vertical position as possible into the load
- When sampling pulses, especially loads containing high levels of Foreign Material, probes tend to block and be difficult to open and close. It is recommended to clean probes as often as required
- Do not use oil, water or grease to clean probes as Foreign Material may adhere to the probe further blocking it

#### 15.3 Vacuum Probes

- Vacuum probes should be made of sturdy material so that they do not bend or distort when pushed into the load
- Check to ensure there are no leaks that may reduce suction
- The vacuum suction strength should be sufficient to obtain samples from at or near the bottom of the load
- The probe should be inserted into the load in a smooth motion so that the probe spends an
  equal amount of time at all depths of the load and thus obtains an equal amount of grain from
  all points within the load
- Consideration should be given to not obtaining a sample from the top few centimetres of the load as a non-representative sample may be obtained in this manner
- The probe should not be kept at specific depths of the load (such as on or near the bottom) for a different period of time in respect to other areas as a representative sample may not be obtained

- The probe should not be used if any material from the previous load remains in the hose attached to the probe
- The vacuum device should continue to run until there is no material remaining in the probe and hose attached to the probe
- It is recommended to use a hose attached to the probe that has a smooth inner surface to reduce the risk of becoming blocked with material
- The sample collection bin should not contain material from a prior load that may lead to rejection of the next sampled load or contamination of that sample

#### 15.4 Pneumatic Probes

- Pneumatic probes should only be operated where the operator has full access and can visually inspect the entire surface of the load
- The device should have sufficient reach to be inserted into all areas of the load and to reach at or near the bottom of the load
- The device should be run until all grain has been removed from the device and collected into the sample collection bin
- The sample collection bin should not contain material from a prior load that may lead to rejection of the next sampled load or contamination of that sample

### **Sizing Procedure**

- 16. This procedure has been developed for sizing of samples often required for Machine Dressed Export product. This is also referred to as Retention. While this procedure may not be required for all Machine Dressed Export product the following is a guide for industry consideration:
  - a) Sample to be sized is first to be assessed as per the relevant Standard
  - b) Prior to sizing, all non-pulse material (i.e., Foreign Material) is to be removed from the sample. Weigh the remaining pulse material and record the result
  - c) The remaining pulse material after removal of Foreign Material is to be placed on the relevant sized screen
  - d) The screen is to be shaken using the procedure for assessment of defects falling through the screen i.e., 40 shakes of the sieve as per method 13 "Forty Shakes Sieving Method"
  - e) Weigh the pulse material passing through the sieve after screening. Calculate the percentage by weight using the total sample weight this is the percentage falling through the screen. Alternatively weigh the material remaining on top of the sieve after screenings this is the percentage remaining above the screen (Retention)

## **De-Hulling Procedure**

- 17. This procedure has been developed for de-hulling the kernel prior to assessment of seed kernel defects for all commodities where kernels are to be assessed:
  - a) Assessment for kernel defects to occur on 'as is' dirty sample basis i.e., without the removal of Foreign Material or defects.
  - b) A minimum of 200 grams of the 'as is' sample obtained following probing the load is to be dehulled. A larger sample may be used where required.

- c) To assist in a more rapid assessment process, the de-hulling method should occur at the same time as the sample is being assessed for other quality parameters i.e., obtain a minimum 200 grams from the probe sample and start the de-hulling unit and a further 200 grams from the probe sample and commence assessment for all quality parameters except kernel defects.
- d) Following de-hulling, assessment for defects is to occur on the de-hulled sample.
- e) During the de-hulling process, parts of the kernel may be broken off causing "a chalky appearance" on the kernel. Kernels are not to be assessed as defective as a result of these chalky/dusty particles. These particles and dust may be gently removed by various means such as a damp cloth.

## SECTION 5 QUALITY CHARTS

The following tables represent the grades of various Standards as defined in this Standards Manual.

Standards exist for various commodities in various forms, including:

- At Receival Farmer Dressed
- At Export Farmer Dressed or Machine Dressed
- Other Processed commodities

All Standards are referred to by a CSP number, unique to each Standard.

To fully understand and accurately implement these pulse Standards, reference should be made to:

- Other relevant sections in this Standards Manual, including
  - Definitions
  - Pulse Classification Procedures
  - The Appendices
- Pulse Australia Visual Quality Charts where applicable
- GTA Visual Recognition Standards Guide where applicable
- Variety Colour Charts where applicable

As stated previously, the following Standards are applicable at the time of publishing of this Manual.

Variations and new Grades may exist and industry is encouraged to keep updated with changes via reviewing the Pulse Australia website at <a href="http://www.pulseaus.com.au">http://www.pulseaus.com.au</a> and other relevant industry information sources.

Industry should note that varieties listed within these Standards may be subject to Plant Breeder's Rights.

# CSP – 1.1 ADZUKI BEANS MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The Adzuki Beans shall be sound, dry, fresh and have true varietal colour and characteristics for "Bloodwood" and "Erimo".		
Purity	99% Min by weight	Whole Adzuki Beans, defective Adzuki Beans and seed coats.	
Moisture	14% Max		
Defective	5% Max by weight, includes, 3% Max by weight Split/Broken and 2% Max by weight Damaged	Adzuki Beans not of the specified variety and Adzuki Beans that are chipped, damaged, diseased, frost damaged, insect damaged, sappy, shrivelled, sprouted, split/broken, weather damaged, wrinkled. Includes whole pods containing seed and all Adzuki Bean seed material falling through the 4.33mm round hole screen see Point 13 of Procedures.	
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Split / Broken	3% Max by weight	Adzuki Beans that are not whole.	
Damaged	2% Max by weight	Sprouted or insect damaged only.	
Poor Colour	1% Max by weight	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class. See Definition Section for description of Poor Colour.	
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Adzuki Bean material.	
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.	
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.	
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.	

# CSP – 1.2 ADZUKI BEANS MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Adzuki Beans shall be sound, dry, fresh and have true varietal colour and characteristics for "Bloodwood" and "Erimo".	
Purity	99.5% Min by weight	Whole Adzuki Beans, defective Adzuki Beans and seed coats.
Moisture	14% Max	
Defective Of which	2% Max by weight	Adzuki Beans not of the specified variety and Adzuki Beans that are chipped, damaged, diseased, frost damaged, insect damaged, sappy, shrivelled, sprouted, split/broken, weather damaged, wrinkled. Includes whole pods containing seed and all Adzuki Bean seed material falling through the 4.76mm round hole screen (No.1 grade) or 4.76mm (No.2 grade) - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	1% Max by weight	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class.
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Adzuki Bean material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes grasshoppers and/or Locusts.
Foreign Seeds	Nil tolerance	See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

## CSP – 2.1.1 BROAD BEANS MINIMUM RECEIVAL STANDARD FARMER DRESSED

RECEIVAL STANDARD FARMER DRESSED		
PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	Broad Beans shall be sound, dry, fresh and be colour typical for the variety of the season.	
Purity	97% Min by weight	Whole Broad Beans, defective Broad Beans and seed coats.
Moisture	14% Max	
Defective	7% Max by weight, includes 1.5% Max by weight Insect Damaged 6% Max by weight Mechanical Damage 3% Max by weight Poor Colour 3% Max by weight Ascochyta	Broad Beans not of the specified variety and Broad Beans remaining above the 6mm slot screen that are broken, chipped, damaged, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed, Mechanical Damage, Kernel Damage, Poor Colour, Ascochyta Affected and Screenings.
Mould	1 grain Max per 400g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Screenings	5% Max by weight, 6 mm slot	All material passing through a 6 mm slotted screen is part of Screenings or Foreign Material. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Mechanical Damage	6.0% Max by weight, includes 5% Max by weight Seed Coat damage and 3% Max by weight Kernel Damage	Includes tolerances of 3% maximum Kernel Damage and 5% maximum Seed Coat damage.
Poor Colour	3% Max by weight	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class. Including evergreens (Max 2%), old season, dark beans and nil tolerance for black beans. Refer to Pulse Australia Broad Bean Visual Quality Standards.
Ascochyta	3% Max by weight	Broad Beans affected with a spot greater than 4mm or more than one spot with combined size greater than 4mm. Affected is where the Ascochyta lesion is visible on the seed coat.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Broad Bean material.
Unmillable Material	0.5% Max by weight (of which Max 0.3% soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.

# CSP – 2.1.2 BROAD BEANS MINIMUM EXPORT STANDARD FARMER DRESSED

		EK DKE33ED
PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Broad Beans shall be sound, dry, fresh and colour typical for the variety of the season.	
Purity	97% Min by weight	Whole Broad Beans, defective Broad Beans and seed coats.
Moisture	14% Max	
Defective Of Which	8% Max by weight. Includes Max 1.5% by weight Insect Damaged, 6% Max by weight Mechanical Damage, 3% Max by weight Poor Colour and 3% Max by weight Ascochyta	Broad Beans not of the specified variety and Broad Beans remaining above the 6mm slot screen that are broken, chipped, damaged, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed, Mechanical Damage, Kernel Damage, Poor Colour, Ascochyta Affected and Screenings.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Screenings	5% Max by weight, 6 mm slot	All material passing through a 6 mm slot screen is part of Screenings or Foreign Material. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Mechanical Damage	6.0% Max by weight, includes 5% Max by weight Seed Coat damage and 3% Max by weight Kernel Damage	Includes tolerances of 3% maximum Kernel Damage and 5% maximum Seed Coat damage.
Poor Colour	3% Max by weight, includes 1% Max grains Black Beans (affected by mould (field or storage) or moisture)	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class. Including evergreens (Max 2%), old season, dark beans or affected by mould (field or storage). Refer to Pulse Australia Broad Bean Visual Quality Standards.
Ascochyta	3% Max by weight	Broad Beans affected with a spot greater than 4mm or more than one spot with combined size greater than 4mm. Affected is where the Ascochyta lesion is visible on the seed coat.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Broad Bean material.
Unmillable Material	0.5% Max by weight (of which Max 0.3% soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.
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<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 2.1.3 BROAD BEANS MINIMUM EXPORT STANDARD MACHINE DRESSED

DAD AMETER DECLIDEMENTS COMMENTS (VARIATIONS		
PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Broad Beans shall be sound, dry, fresh and colour typical for the variety of the season.	
Purity	99.5% Min by weight	Whole Broad Beans, defective Broad Beans and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 7% Max by weight Bulk vessel hold shipment: 10% Max by weight. All include Max 1.5% by weight Insect Damaged, 6% Max by weight Mechanical Damage, 3% Max by weight Poor Colour and 3% Max by weight Ascochyta	Broad Beans not of the specified variety and Broad Beans remaining above the 6mm slot screen that are broken, chipped, damaged, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed, Mechanical Damage, Poor Colour, Ascochyta Affected and Screenings.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Screenings	1% Max by weight, 6 mm slot	All material passing through a 6 mm slot screen is part of Screenings or Foreign Material. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Mechanical Damage	6.0% Max by weight, includes 5% Max by weight Seed Coat damage and 3% Max by weight Kernel Damage	Includes tolerances of 3% maximum Kernel Damage and 5% maximum Seed Coat damage.
Poor Colour	3% Max by weight	Seed Coat or kernel that is distinctly off colour from the characteristic colour of the predominating class. Refer to the Pulse Australia Broad Bean Visual Quality Standard.
Ascochyta	3% Max by weight	Broad Beans affected with a spot greater than 4mm or more than one spot with combined size greater than 4mm. Affected is where the Ascochyta lesion is visible on the seed coat.
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Broad Bean material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Two (2) Max	Dead per 400g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.

Note: The Broad Beans shall be designated into a category based on the final grade achieved by the majority (greater than 90%) of the Broad Beans once cleaned and graded e.g. 90% of Broad Beans must be retained above an 11mm round hole screen or 14mm round hole screen to be classified as 11mm or 14mm sized, respectively.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 2.2 BROAD BEANS – No.1 SPLIT MINIMUM EXPORT STANDARD

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Broad Beans shall have a clean and bright appearance and shall be milled from hard and well-filled Broad Beans.	
Purity	99% Min by weight	Split and whole Broad Beans & caps but excludes detached seed coats.
Moisture	14% Max	
Defective Of which	7% Max by weight, includes 3% Max by weight Poor Colour and 1% Max by weight Caps	Broad Beans not of the specified variety and Broad Beans that are broken, chipped, damaged, diseased, frost damaged, insect damaged, sappy, shrivelled, sprouted, weather damaged, wrinkled, whole pods containing seed and immature Broad Beans, caps, Broad Beans with the Seed Coat intact, Broad Beans with a Missing Seed Coat and Poor Colour Broad Beans.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Caps	1% Max by weight	Seed coats adhering to split or broken seed.
Poor Colour	3% Max by weight of immature Broad Beans	Broad Beans with green kernels from premature ripening and discoloured beans with cotyledons (seed) distinctly off colour from the characteristic colour of the predominating class. Includes Ascochyta affected lesions.
Broken & Kibbled	4% Max by weight, 7.00 mm round hole	Broad Bean seed material that passes through a 7.00 mm round hole screen. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Detached Seed Coats and 0.1% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Broad Bean seed material, but includes detached seed coats.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Not more than one (1) stone per kg. Please read important note re soil contamination – see Point 14 of Procedures.
Detached Seed Coats	0.1% Max by weight	
Snails	Nil tolerance	
Field Insects	Nil tolerance	See Appendix C. Includes Grasshoppers &/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 3.1 CALOONA / POONA COWPEAS MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Cowpeas shall have a good bright appearance of the specified type i.e. buff coloured or red.	
Purity	99% Min by weight	Whole Cowpeas, defective Cowpeas, Cowpeas other than specified type.
Moisture	14% Max	
Defective Of which	2% Max by weight	Cowpeas not of the specified variety. Cowpeas that are broken, chipped, diseased, frost damaged, insect damaged, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Cowpeas, whether broken or unbroken and loose seed coat.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	1% Max by weight	Seed coat or kernel which is distinctly off colour from the characteristic colour of the predominating class of the specified type. Includes Ascochyta affected lesions.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Cowpea seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil Tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

NOTE: Sowing seed shall have a minimum germination of 85% including hard seeds (I.S.T.A).

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 4.1.1 CHICKPEAS – DESI TYPE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Desi type chickpeas should be sound, dry, fresh and light to medium brown in colour (a slight greenish tinge is allowed). Black is excluded as the predominating class.	
Purity	97% Min by weight	Includes whole Desi type chickpeas, defective Desi type chickpeas and seed coats.
Moisture	14% Max	
Defective	6% Max by weight, includes 2% Max by weight Poor Colour	Desi type chickpeas that are broken, chipped, frost damaged, diseased, fully green, hail damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Desi type chickpeas, whether broken or unbroken, loose seed coats and all Desi Chickpea seed material falling through the 3.97mm slotted screen - see Point 13 of Procedures.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes max 1% by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class. Must comply with the 1% Ascochyta detailed below.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	3% Max by weight, includes 2% Max by weight Field Peas and 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Desi type chickpea seed material.
Unmillable Material	0.5% Max by weight (of which Max 0.3% soil)	Includes soil and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

### CSP – 4.1.2 CHICKPEAS – DESI TYPE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Desi type Chickpeas should be sound, dry, fresh and light to medium brown in colour (a greenish tinge is allowed). Black is excluded as the predominating class.	
Purity	97% Min by weight	Whole Desi type Chickpeas, defective Desi type Chickpeas and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 8% Max by weight Bulk vessel hold shipment: 10% Max by weight All include Poor Colour	Desi type chickpeas that are broken, chipped, diseased, frost damaged, fully green, hail damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Desi type chickpeas, whether broken or unbroken, loose seed coats and all Desi Chickpea seed material falling through the 3.97mm slotted screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, of which Max 1% by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class. Must comply with the 1% Ascochyta detailed below.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	3% Max by weight, includes 2% Max by weight Field Peas and 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Desi type Chickpea seed material including not more than 2% by weight of Field Peas.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

### CSP – 4.1.3 CHICKPEAS – DESI TYPE MINIMUM EXPORT STANDARD MACHINE DRESSED

STANDARD WACHINE DRESSED		
PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Desi type Chickpeas should be sound, dry, fresh and light to medium brown in colour (a greenish tinge is allowed). Black is excluded as the predominating class.	
Purity	99% Min by weight	Whole Desi type Chickpeas, defective Desi type Chickpeas and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 3% Max by weight Bulk vessel hold shipment: 7% Max by weight All include Poor Colour	Desi type chickpeas that are broken, chipped, diseased, frost damaged, fully green, hail damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Desi type chickpeas, whether broken or unbroken, loose seed coats and all Desi Chickpea seed material falling through the 3.97mm slotted screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes 1% Max by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class. Must comply with the 1% Ascochyta detailed below.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable material	Unmillable material and all vegetable matter other than Desi type Chickpeas seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 4.2 CHICKPEAS – SPLIT CHANA DHAL MINIMUM EXPORT STANDARD

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Chana Dhal Split Chickpeas shall be milled from hard and well-filled chickpeas that are characteristic of the colour and variety.	
Purity	99% Min by weight	Whole chickpeas with a missing seed coat, Split chickpeas, kibble and broken seed and greenish tinged and discoloured splits combined.
Moisture	14% Max	
Whole chickpeas with a missing seed coat	2% Max by weight	Whole Chickpeas with a missing seed coat.
Of which		
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes 1% Max by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class. Must comply with the 1% Ascochyta detailed below.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Broken & Kibbled	4% Max by weight, 3.57mm round hole	Chickpea seed material which passes through a 3.57mm round hole screen. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Caps & Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Caps are the seed coats adhering to split or broken seed measured as a combined weight.  Foreign material includes unmillable material, and all vegetable matter other than Desi type Chickpea seed material.
Detached seed coats	0.1% Max by weight	Seed coats that are not attached to the kernels.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Nil tolerance	See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 4.3.1 CHICKPEAS – KABULI TYPE No. 1 Grade Large MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Kabuli type Chickpeas shall be sound, dry, fresh and cream to light brown in colour. Dark brown to black is excluded as the predominating class.	
Purity	97% Min by weight	Whole Kabuli type Chickpeas, defective Kabuli type Chickpeas and seed coats.
Moisture	14% Max	
Defective	3% Max by weight, includes 2% Max by weight Poor Colour	Kabuli Type Chickpeas not of the specified variety and Kabuli type Chickpeas that are broken, caked, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed and all Kabuli Chickpea seed material falling through the 6.00mm round hole screen - see Point 13 of Procedures.
Mould	1 grain Max per 400g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes 1% Max by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	3% Max by weight, includes Max 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Kabuli type Chickpeas seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more
Waterial		detail

### CSP – 4.3.2 CHICKPEAS – KABULI TYPE No. 1 Grade Large MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics		s shall be sound, dry, fresh and cream to light brown in colour. is excluded as the predominating class.
Purity	99.5% Min by weight	Whole Kabuli type chickpeas, defective Kabuli type chickpeas and seed coats.
Moisture	14% Max	
Defective Of which	2% Max by weight, includes 2% Max by weight Poor Colour	Kabuli Type Chickpeas not of the specified variety and Kabuli type Chickpeas that are broken, caked, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed and all Kabuli Chickpea seed material falling through the 6.00mm round hole screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes 1% Max by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Kabuli Type Chickpea seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Two (2) Max	Dead per 400g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Nil tolerance	

NOTE: The minimum and/or maximum size in millimetres applying to at least 92% of the Kabuli type chickpea of the lot agreed between the buyer and seller e.g. 8mm sized Kabuli type chickpeas, must have a retention of 92% above a 8mm round hole screen. See Point 14 of Procedures.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 4.3.3 CHICKPEAS – KABULI TYPE No. 1 Grade Small MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics		s shall be sound, dry, fresh and cream to light brown in k is excluded as the predominating class.
Purity	97% Min by weight	Whole Kabuli type Chickpeas, defective Kabuli type Chickpeas and seed coats.
Moisture	14% Max	
Defective	3% Max by weight, includes 2% Max by weight Poor Colour	Kabuli Type Chickpeas not of the specified variety and Kabuli type Chickpeas that are broken, caked, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed and all Kabuli Chickpea seed material falling through the 5.00mm round hole screen - see Point 13 of Procedures.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes 1% Max by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Kabuli type Chickpeas seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

#### CSP – 4.3.4 CHICKPEAS – KABULI TYPE No. 1 Grade Small MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics		s shall be sound, dry, fresh and cream to light brown in colour. is excluded as the predominating class.
Purity	97% Min by weight	Whole Kabuli type chickpeas, defective Kabuli type chickpeas and seed coats
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 8% Max by weight Bulk vessel hold shipment: 10% Max by weight All include Poor Colour	Kabuli Type Chickpeas not of the specified variety and Kabuli type Chickpeas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed and all Kabuli Chickpea seed material falling through the 5.00mm round hole screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes 1% Max by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Kabuli Type Chickpea seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	
Field Insects	Fifteen (15) Max	Dead per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 4.3.5 CHICKPEAS – KABULI TYPE No. 1 Grade Small MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics		s shall be sound, dry, fresh and cream to light brown in colour. is excluded as the predominating class.
Purity	99.5% Min by weight	Whole Kabuli type chickpeas, defective Kabuli type chickpeas and seed coats
Moisture	14% Max	
Defective	2% Max by weight, includes 2% Max by weight Poor Colour	Kabuli Type Chickpeas not of the specified variety and Kabuli type Chickpeas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes whole pods containing seed and all Kabuli Chickpea seed material falling through the 5.00mm round hole screen - see Point 13 of Procedures.
Of which Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight, includes 1% Max by weight Ascochyta	Kernel is distinctly blemished and / or off colour from the characteristic yellow colour of the predominating class.
Ascochyta	1% Max by weight	Ascochyta affected means that an Ascochyta lesion is visible on the kernel. Classifiers are required to break the seed coat if they are not confident that the lesion has penetrated to the kernel.
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Kabuli Type Chickpea seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

NOTE: The minimum and/or maximum size in millimetres applying to at least 92% of the Kabuli type chickpea of the lot agreed between the buyer and seller e.g. 8mm sized Kabuli type chickpeas must have a retention of 92% above a 8mm round hole screen. See Point 14 of Procedures.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 5.1.1 FABA BEANS – CANNING GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall be sound, dry and fresh and light to medium brown or pale green in colour.	
Purity	97% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats.
Moisture	14% Max	
Defective	2% Max by weight, includes 1% Max by weight Poor Colour	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1 grain Max per 400g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Retention	8 mm round hole	90% of Faba Beans must not pass through the screen to be classified as 8mm. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Poor Colour	1% Max by weight	Faba Beans with excessive discolouration of the seed coat as per the Pulse Australia Faba Bean Visual Quality Charts. Includes Ascochyta lesions.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks and plant material that may be connected with the plant.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.

#### CSP – 5.1.2 FABA BEANS – CANNING GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall be lin colour.	hard and well filled and light to medium brown or pale green
Purity	99.5% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats
Moisture	14% Max	
Defective Of which	1.5% Max by weight, includes 1% Max by weight Poor Colour	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Retention	8 mm round hole	90% of Faba Beans must not pass through the screen to be classified as 8mm. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Poor Colour	1% Max by weight	Faba Beans with excessive discolouration of the seed coat as per the Pulse Australia Faba Bean Visual Quality Charts. Includes Ascochyta lesions.
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks and plant material that may be connected with the plant.
Unmillable Material	0.1% Max by weight	Includes soil metals and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Two (2) Max	Dead per 400g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

**NOTE**: The Faba beans shall be designated into a category based on the final grade achieved by the majority (greater than 90%) once cleaned and graded e.g. 90% of faba beans must be retained above an 8mm round hole screen to be classified as 8mm.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 5.2.1 FABA BEANS – NO.1 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall be sound, dry and fresh and light to medium brown or pale green in colour.	
Purity	97% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats.
Moisture	14% Max	
Defective	6% Max by weight includes 3% Max by weight Poor Colour 3% Max by weight total of all other Defects except Mould	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, green, insect damaged, sappy, shrivelled, split, sprouted, stained, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1 grain Max per 400g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	3% Max by weight	Faba Beans with excessive discolouration of the seed coat as per the Pulse Australia Faba Bean Visual Quality Charts. Includes Ascochyta lesions.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks and plant material that may be connected with the plant.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample

### CSP – 5.2.2 FABA BEANS – NO.1 GRADE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall b green in colour.	e sound, dry and fresh and light to medium brown or pale
Purity	97% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 8% Max by weight Bulk vessel hold shipment: 10% Max by weight All include Poor Colour	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, green, insect damaged, sappy, shrivelled, split, sprouted, stained, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	3% Max by weight	Faba Beans with excessive discolouration of the seed coat as per the Pulse Australia Faba Bean Visual Quality Charts. Includes Ascochyta lesions.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks and plant material that may be connected to the plant.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 5.2.3 FABA BEANS – NO.1 GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall be sound, dry and fresh and light to medium brown or pale green in colour.	
Purity	99% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 6% Max by weight Bulk vessel hold shipment: 10% Max by weight All include Poor Colour	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, green, insect damaged, sappy, shrivelled, split, sprouted, stained, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	3% Max by weight	Faba Beans with excessive discolouration of the seed coat as per the Pulse Australia Faba Bean Visual Quality Charts. Includes Ascochyta lesions.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks and plant material that may be connected to the plant.
Unmillable Material	0.1% Max by weight	Includes soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil Tolerance	
Field Insects	Two (2) Max	Dead per 400g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

## CSP – 5.3.1 FABA BEANS – NO.2 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall be green in colour.	e sound, dry and fresh and light to medium brown or pale
Purity	97% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats.
Moisture	14% Max	
Defective	10% Max by weight, includes 7% Max by weight Poor Colour	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, green, insect damaged, sappy, shrivelled, split, sprouted, stained, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1 grain Max per 400g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	7% Max by weight	Faba Beans with excessive discolouration of the seed coat as per the Pulse Australia Faba Bean Visual Quality Charts. Includes Ascochyta lesions.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks and plant material that may be connected to the plant.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.

### CSP – 5.3.2 FABA BEANS – NO.2 GRADE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall be sound, dry and fresh and light to medium brown or pale green in colour.	
Purity	97% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 12% Max by weight Bulk vessel hold shipment: 14% Max by weight All include Poor Colour	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, green, insect damaged, sappy, shrivelled, split, sprouted, stained, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	7% Max by weight	Discoloured Faba Beans have excessive discolouration of the seed coat as per the Pulse Australia Faba Bean Visual Quality Charts. Includes Ascochyta lesions.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks and plant material that may be connected to the plant.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

## CSP – 5.4.1 FABA BEANS – NO.3 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Faba Beans shall be sound, dry and fresh and light to medium brown or pale green in colour.	
Purity	97% Min by weight	Whole Faba Beans, defective Faba Beans and seed coats
Moisture	14% Max	
Defective	20% Max by weight of which 7% Max by weight bin burnt, caked, heat damaged, sprouted	Faba Beans not of the specified variety and Faba Beans that are broken, chipped, diseased, frost damaged, green, insect damaged, poor colour, sappy, shrivelled, split, sprouted, stained, weather damaged, wrinkled. Includes pods that contain Faba Beans, whether broken or unbroken, loose seed coat and all Faba Bean seed material falling through the 3.75mm slotted screen - see Point 13 of Procedures.
Mould	1 grain Max per 400g	Mould (Field and / or Storage) only
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Faba Bean seed material. Foreign Material includes stalks & plant material that may be connected to the plant.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.

## CSP – 5.5 FABA BEANS – NO.1 SPLIT GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics		Faba Beans having a clean bright appearance. The Faba hard and well filled whole Faba Beans
Purity	99.5% Min by weight	Whole Faba Beans, split Faba Beans, defective Faba Beans and seed coats.
Moisture	14% Max	
Defective	3% Max by weight, includes 2% Max by weight Poor Colour, 2%	Tolerances apply to Poor Colour, Caps and Faba Beans with the Seed Coat intact and Faba Beans with a Missing
Of which	Max by weight Caps and whole unshelled	Seed Coat.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	2% Max by weight	Kernel which is distinctly off colour from the characteristic colour of the predominating class. Includes Ascochyta and Green Faba beans.
Caps, Faba Beans with seed coat intact	2% Max by weight	Caps are seed coats adhering to split or broken seed.
Broken & Kibbled	4% Max by weight, 6mm round hole screen	Faba Bean seed material that passes through a 6mm round hole screen. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Detached Seed Coats	0.1% Max by weight	
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Includes unmillable material, detached seed coats and all vegetable matter other than unspecified Faba Bean seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Not more than one (1) stone per kg. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Nil tolerance	See Appendix C. Includes Grasshoppers &/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP - 6.1 FENUGREEK - WHOLE NO.1 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Fenugreek shall be hard and well filled.	
Purity	97% Min by weight	Whole Fenugreek, defective Fenugreek and seed coats.
Moisture	12% Max	
Defective	3% Max by weight, includes 1% Max by weight Varietal Restriction	Fenugreek not of the specified variety and Fenugreek that is broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Fenugreek, whether broken or unbroken, loose seed coat and all Fenugreek seed material falling through the screen - see Point 13 of Procedures.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Fenugreek not of the specified variety.
Poor Colour	1% Max by weight	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class. Includes poor colour arising from disease such as bacterial blight, frost damage and water staining.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Fenugreek seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

#### CSP – 6.2 FENUGREEK – WHOLE NO.1 GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Fenugreek shall be hard and well filled.	
Purity	99% Min by weight	Whole Fenugreek, defective Fenugreek and seed coats.
Moisture	12% Max	
Defective Of which	2% Max by weight, includes 1% Max by weight Varietal Restriction	Fenugreek not of the specified variety and Fenugreek that is broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Fenugreek, whether broken or unbroken, loose seed coat and all Fenugreek seed material falling through the screen - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Not of the specified variety.
Poor Colour	1% Max by weight	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class. Includes poor colour arising from disease such as bacterial blight, frost damage and water staining.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Fenugreek seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 7.1.1 LENTILS – WHOLE GREEN NO.1 MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard a	and well-filled and light green in colour.
Purity	97% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective	4% Max by weight, includes 1% Max by weight Poor Seed Coat Colour, 1% Max by weight Poor Kernel Colour and 3% Max by weight of Defectives other than Poor Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat and all Green Lentil seed material falling through the 2mm slotted screen (Boomer 2.2mm) - see Point 13 of Procedures.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Lentils not of the specified variety.
Poor Seed Coat Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the Pulse Australia Lentil Visual Quality Charts. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the Pulse Australia Lentil Visual Quality Charts. Includes any disease, frost and water staining, and red, brown, black, bleached and chalky white kernels.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Lentil seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

### CSP – 7.1.2 LENTILS – WHOLE GREEN NO.1 MINIMUM EXPORT STANDARD FARMER DRESSED

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PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard and well-filled and light green in colour.	
Purity	97% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective Of which	Container (bulk or bagged): 5% Max by weight Bulk vessel hold shipment: 10% Max by weight Both include Poor Seed Coat Colour and Poor Kernel Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat and all Green Lentil seed material falling through the 2mm slotted screen (Boomer 2.2mm) - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Lentils not of the specified variety.
Poor Seed Coat Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the Pulse Australia Lentil Visual Quality Charts. Includes any disease, frost and water staining, and red, brown, black, bleached and chalky white kernels.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Lentil seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.
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<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

### CSP – 7.1.3 LENTILS – WHOLE GREEN NO.1 MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard a	and well filled.
Purity	99% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 3% Max by weight Bulk vessel hold shipment: 5% Max by weight Both include Poor Seed Coat Colour and Poor Kernel Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat and all Green Lentil seed material falling through the 2mm slotted screen (Boomer 2.2mm) - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Lentils not of the specified variety.
Poor Seed Coat Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the Pulse Australia Lentil Visual Quality Charts. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the Pulse Australia Lentil Visual Quality Charts. Includes any disease, frost and water staining, and red, brown, black, bleached and chalky white kernels.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Lentil seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 7.2.1 LENTILS – WHOLE RED NO.1 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard	and well filled.
Purity	97% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective	4% Max by weight, includes 1% Max by weight Poor Seed Coat Colour, 1% Max by weight Poor Kernel Colour, and 3% Max by weight of Defectives other than Poor Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, orange tip, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat, 3% blondes (Aldinga only) and all Red Lentil seed material falling through the 2mm slotted screen (Aldinga 2.2mm) – see Point 13 of Procedures.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Lentils not of the specified variety.
Poor Seed Coat Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining, and green, brown, black, yellow, bleached and chalky white kernels.
Contrasting Colour	1% Max by weight	Contrasting colour of the seed coat in the same variety. Not classified as defective.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Lentil seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

### CSP - 7.2.2 LENTILS - WHOLE RED NO.1 GRADE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard a	and well filled.
Purity	97% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective Of which	Container (bulk or bagged): 5% Max by weight Bulk vessel hold shipment: 10% Max by weight Both include Poor Seed Coat Colour and Poor Kernel Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, orange tip, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat, 3% blondes (Aldinga only) and all Red Lentil seed material falling through the 2mm slotted screen (Aldinga 2.2mm) - see Point 13 of Procedures.
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Lentils not of the specified variety.
Poor Seed Coat Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining, and green, brown, black, yellow, bleached and chalky white kernels.
Contrasting Colour	1% Max by weight	Contrasting colour of the seed coat in the same variety. Not classified as defective.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Lentil seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP - 7.2.3 LENTILS - WHOLE RED NO.1 GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard and well filled.	
Purity	99% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective Of which	Container (bulk or bagged): 3% Max by weight Bulk vessel hold shipment: 5% Max by weight Both include Poor Seed Coat Colour and Poor Kernel Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, orange tip, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat, 3% blondes (Aldinga only) and all Red Lentil seed material falling through the 2mm slotted screen (Aldinga 2.2mm) - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Not of the specified variety.
Poor Seed Coat Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining, and green, brown, black, yellow, bleached and chalky white kernels.
Contrasting Colour	1% Max by weight	Contrasting colour of the seed coat in the same variety. Not classified as defective.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Lentil seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.
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<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 7.3.1 LENTILS – WHOLE RED NO.2 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard and we	ell filled.
Purity	97% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective	8% Max by weight, includes 3% Max by weight Poor Seed Coat Colour, 1% Max by weight Poor Kernel Colour and 5% Max by weight of Defectives other than Poor Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, orange tip, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat, 3% blondes (Aldinga only) and all Red Lentil seed material falling through the 2mm slotted screen (Aldinga 2.2mm) - see Point 13 of Procedures.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Lentils not of the specified variety.
Poor Seed Coat Colour	3% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining, and green, brown, black, yellow, bleached and chalky white kernels.
Contrasting Colour	1% Max by weight	Contrasting colour of the seed coat in the same variety. Not classified as defective.
Foreign Material	3% Max by weight, of which 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable other than Lentil seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

### CSP – 7.3.2 LENTILS – WHOLE RED NO.2 GRADE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard a	and well filled.
Purity	97% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective Of which	Container (bulk or bagged): 9% Max by weight Bulk vessel hold shipment: 14% Max by weight Both include Poor Seed Coat Colour and Poor Kernel Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, orange tip, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat, 3% blondes (Aldinga only) and all Red Lentil seed material falling through the 2mm slotted screen (Aldinga 2.2mm) - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Lentils not of the specified variety.
Poor Seed Coat Colour	3% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining, and green, brown, black, yellow, bleached and chalky white kernels.
Contrasting Colour	1% Max by weight	Contrasting colour of the seed coat in the same variety. Not classified as defective.
Foreign Material	3% Max by weight, of which 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Lentil seed material. Includes empty seed pods.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

### CSP – 7.3.3 LENTILS – WHOLE RED NO.2 GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Lentils shall be hard and well filled.	
Purity	99% Min by weight	Whole Lentils, Defective Lentils and seed coats.
Moisture	14% Max	
Defective Of which	Container (bulk or bagged): 7% Max by weight Bulk vessel hold shipment: 9% Max by weight Both include Poor Seed Coat Colour and Poor Kernel Colour	Lentils not of the specified variety. Lentil kernels that are black, broken, chipped, diseased, frost damaged, insect damaged, orange tip, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Lentils, whether broken or unbroken, loose seed coat, 3% blondes (Aldinga only) and all Red Lentil seed material falling through the 2mm slotted screen (Aldinga 2.2mm) - see Point 13 of Procedures.
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Varietal Restriction	1% Max by weight	Not of the specified variety.
Poor Seed Coat Colour	3% Max by weight	Discoloured Lentils have excessive discolouration of the seed coat as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining.
Poor Kernel Colour	1% Max by weight	Discoloured Lentils have excessive discolouration of the kernel as per the GTA Visual Recognition Standards Guide. Includes any disease, frost and water staining, and green, brown, black, yellow, bleached and chalky white kernels.
Contrasting Colour	1% Max by weight	Contrasting colour of the seed coat in the same variety. Not classified as defective.
Foreign Material	1% Max by weight, of which 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Lentil seed material. Includes empty seed pods.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 7.4.1 LENTILS – SPLIT RED NO.1 GRADE MINIMUM EXPORT STANDARD

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	Split Lentils having a clean and bright appearance. The Lentils shall be milled from hard and well-filled whole Red Lentil seed.	
Purity	99.75% Min by weight	Split Lentils, whole Lentils, Broken & Kibbled and Caps.
Moisture	14% Max	
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	0.25% Max by weight	Kernel that is distinctly off colour from the characteristic colour of the predominating class. Includes kernels that are brown, black, green, yellow or bleached as per the GTA Visual Recognition Standards Guide.
Chalky White Disease	0.25% Max by weight	Kernels that have a distinct chalky white lesion as per the GTA Visual Recognition Standards Guide.
Caps	0.25% Max by weight	Caps are those seed coats adhering to split or broken seed.
Whole Lentils with a missing seed coat	5% Max by weight	Whole lentils with a missing seed coat
Broken & Kibbled	5% Max by weight, Northfield - 2.78 mm round hole All other varieties - 3 mm round hole	Lentil seed material falling through the screen. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Foreign Material	0.25% Max by weight	Unmillable material (i.e. includes soil, stones and non-vegetable matter) and all vegetable matter other than Lentil seed material including detached seed coats. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Nil tolerance	See Appendix C. Includes Grasshoppers &/or Locusts.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 7.4.2 LENTILS – SPLIT RED NO.2 GRADE MINIMUM EXPORT STANDARD

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	Split Lentils having a clean and bright appearance. The Lentils shall be milled from hard and well-filled whole Red Lentil seed.	
Purity	99.5% Min by weight	Split Lentils, whole Lentils, Broken & Kibbled and Caps.
Moisture	14% Max	
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	0.25% Max by weight	Kernel that is distinctly off colour from the characteristic colour of the predominating class. Includes kernels that are brown, black, green, yellow or bleached as per the GTA Visual Recognition Standards Guide.
Chalky White Disease	0.25% Max by weight	Kernels that have a distinct chalky white lesion as per the GTA Visual Recognition Standards Guide.
Caps	0.5% Max by weight	Caps are those seed coats adhering to split or broken seed.
Whole Lentils with a missing seed coat	5% Max by weight	Whole lentils with a missing seed coat.
Broken & Kibbled	5% Max by weight, Northfield - 2.78 mm round hole All other varieties - 3 mm round hole	Lentil seed material falling through the screen. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Foreign Material	0.5% Max by weight, includes 0.3% Max by weight of soil	Unmillable material (i.e. includes soil, stones and non-vegetable matter) and all vegetable matter other than Lentil seed material, including detached seed coats Please read important note re soil contamination – see Point 14 of Procedures
Snails	Nil tolerance	
Field Insects	Nil tolerance	See Appendix C. Includes Grasshoppers &/or Locusts.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 7.4.3 LENTILS – SPLIT RED NO.3 GRADE MINIMUM EXPORT STANDARD

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PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	Split Lentils having a clean and bright appearance. The Lentils shall be milled from hard and well-filled whole Red Lentil seed.	
Purity	99% Min by weight	Split Lentils, whole Lentils, Broken & Kibbled and Caps.
Moisture	14% Max	
Mould	1% by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	0.25% Max by weight	Kernel that is distinctly off colour from the characteristic colour of the predominating class. Lentils which are green, brown, black or bleached as per the GTA Visual Recognition Standards Guide.
Poor Colour (yellow)	2% Max by weight	Yellow kernel that is distinctly off colour from the characteristic colour of the predominating class as per the GTA Visual Recognition Standards Guide.
Chalky White Disease	0.25% Max by weight	Kernels that have a distinct chalky white lesion as per the GTA Visual Recognition Standards Guide.
Caps	2% Max by weight	Caps are those seed coats adhering to split or broken seed.
Whole Lentils with a missing seed coat	5% Max by weight	Whole lentils with a missing seed coat.
Broken & Kibbled	5% Max by weight, Northfield - 2.78 mm round hole All other varieties - 3 mm round hole	Lentil seed material falling through the screen. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Foreign Material	1% Max by weight	Unmillable material (i.e. includes soil, stones and non-vegetable matter) and all vegetable matter other than Lentil seed material, including detached seed coats. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Nil tolerance	See Appendix C. Includes Grasshoppers &/or Locusts.
Foreign Seeds	2 cereal seeds Max	Cereal seeds exception only. See Appendix B for the remaining tolerance levels.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

## CSP – 8.1.1 LUPINS – ANGUSTIFOLIUS MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Angustifolius Lupins shall be of the current season and be dry and mature.	
Purity	97% Min by weight	Whole Angustifolius Lupins, defective Angustifolius Lupins and seed coats.
Moisture	14% Max	
Defective	7% Max by weight including Max 36 per 200g Poor Colour seeds, Max 2 per 200g Bitter Dark Seeded Lupins, 17 Max per 200g of Phomopsis Affected seeds	Angustifolius Lupins not of the specified type. Angustifolius Lupins that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Angustifolius Lupins, whether broken or unbroken, loose seed coats, poor colour, bitter dark seeded lupins and Phomopsis affected.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	Max 36 seeds per 200g	Yellow reddish / tan coloured Lupins as per the GTA Visual Recognition Standards Guide.
Foreign Material	3% Max by weight, includes 2% Max by weight wild radish and 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Angustifolius Lupin seed material. Includes tolerance for wild radish.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

### CSP – 8.1.2 LUPINS – ANGUSTIFOLIUS MINIMUM RECEIVAL STANDARD WESTERN AUSTRALIA FARMER DRESSED

PARAMETERS	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The Angustifolius Lupins shall be of the current season and be dry and mature.		
Moisture	14% Max		
Insect Damage	10% Max by count		
Ryegrass Ergot / Lupin Sclerotes	25mm Max length Ergot / Sclerotes.	Aggregate lined end to end per 200g.	
Shrivelled / Distorted	3% Max by weight		
Other Seeds / Foreign Material	6% Max by weight	Combined weight of non-lupin seed material.	
De-coated	10% Max by count Fully de-coated seeds.		
Poor Colour	3% Max by count		
Sappy Green/Sprouted	5 seed Max by count		
Bitter / Dark Seeded Varieties	Two (2) Max Dark / Bitter seeds Thirty (30) Max Erregulla or Wodjil Lupins	Count per 200g sample.	
Insects / Other (See also Appendix C)	Five (5) Max dead grain insects and Fifteen (15) Max Field Insects (Grasshoppers, Ladybirds, Wood Bugs, Pea / native Weevils and Army worms) Five (5) Max whole snail shells (dead or alive) One (1) Max Fungus Beetle (dead or alive) Sticks 10mm diameter Max; 30mm Max length Sand or stones Max weight of 0.20 grams combined		
Foreign Seeds (See also Appendix B)	One (1) Max each per 200g of Sunflower, Safflower and Variegated Thistle Three (3) Max per 200g Saffron Thistle Eight (8) Max per 200g Doublegees 2% Max by weight Small Foreign Seeds		
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail	
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	

Note - Standard as per Grain Industry Association of Western Australia

### CSP – 8.1.3 LUPINS – ANGUSTIFOLIUS MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Angustifolius Lupins shall be of the current season and be dry and mature.	
Purity	97% Min by weight	Whole Angustifolius Lupins, Defective Angustifolius Lupins and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 9% Max by weight Bulk vessel hold shipment: 11% Max by weight Both include 36 Max per 200g Poor Colour; 2 Max per 200g Bitter Dark seeded Lupins and 17 Max per 200g of	Angustifolius Lupins not of the specified type. Angustifolius Lupins that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Angustifolius Lupins, whether broken or unbroken, loose seed coats, poor colour, bitter dark seeded lupins and Phomopsis affected.
Mould	Phomopsis Affected seeds  1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	Thirty-six (36) seeds Max per 200g	Yellow reddish / tan coloured Angustifolius Lupins as per the GTA Visual Recognition Standards Guide.
Foreign Material	3% Max by weight, includes 2% Max by weight wild radish and 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Angustifolius Lupin seed material. Includes tolerance for wild radish.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

## CSP – 8.1.4 LUPINS – ANGUSTIFOLIUS MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The Angustifolius Lupins shall be of the current season and be dry and mature.		
Purity	99.5% Min by weight	Whole Angustifolius Lupins, Defective Angustifolius Lupins and seed coats.	
Moisture	14% Max		
Defective Of which	4% Max by weight including 36 Max per 200g Poor Colour; 2 Max per 200g Bitter Dark seeded Lupins and 17 Max per 200g of Phomopsis Affected seeds	Angustifolius Lupins not of the specified variety. Angustifolius Lupins that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Angustifolius Lupins, whether broken or unbroken, loose seed coat, poor colour, bitter dark seeded lupins and Phomopsis affected.	
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	Thirty-six (36) seeds Max per 200g	Yellow reddish / tan coloured Angustifolius Lupins as per the GTA Visual Recognition Standards Guide.	
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Angustifolius Lupin seed material.	
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	Nil tolerance		
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Nil tolerance		

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 8.2.1 LUPINS – ALBUS NO.1 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The Albus Lupins shall be of the current season and be dry and mature.		
Purity	97% Min by weight	Whole Albus Lupins, Defective Albus Lupins and seed coats.	
Moisture	14% Max		
Defective	5% Max by weight including 1% Max by weight Poor Colour, 4 Max per 400g Bitter Dark seeded Lupins, 34 Max per 400g of Phomopsis Affected seeds	Albus Lupins not of the specified variety. Albus Lupins that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Albus Lupins, whether broken or unbroken, loose seed coat, poor colour, bitter dark seeded lupins, Phomopsis affected and all Albus Lupin seed material falling through the 6.75m round hole screen - see Point 13 of Procedures.	
Mould	1 grain Max per 400g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	1% Max by weight	Albus Lupins whose seed coat or kernels are distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	3% Max by weight, includes 2% Max by weight wild radish and 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Albus Lupin seed material. Includes tolerance for wild radish.	
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.	
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.	
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.	

## CSP – 8.2.2 LUPINS – ALBUS NO.1 GRADE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETERS	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Albus Lupins shall be	of the current season and be dry and mature.
Purity	97% Min by weight	Whole Albus Lupins, Defective Albus Lupins and seed coats.
Moisture	14% Max	
Defective Of which	5% Max by weight including 1% Max by weight Poor Colour, 4 Max per 400g Bitter Dark seeded Lupins, 34 Max per 400g of Phomopsis Affected seeds	Albus Lupins not of the specified variety. Albus Lupins that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Albus Lupins, whether broken or unbroken, loose seed coat, poor colour, bitter dark seeded lupins, Phomopsis affected and all Albus Lupin seed material falling through the 6.75m round hole screen - see Point 13 of Procedures.
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	1% Max by weight	Albus Lupins whose seed coats or kernels are distinctly off colour from the characteristic colour of the predominating class.
Foreign Material	3% Max by weight, includes 2% Max by weight wild radish and 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Albus Lupin seed material. Includes tolerance for wild radish.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Two (2) Max	Dead. Whole or substantially whole (more than half) including bodies per 400g sample.
Field Insects	Thirty (30) Max	Dead per 400g sample. See Appendix C.
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

### CSP – 8.2.3 LUPINS – ALBUS NO.1 GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The Albus Lupins shall be of the current season and be dry and mature.		
Purity	99.5% Min by weight	Whole Albus Lupins, Defective Albus Lupins and seed coats.	
Moisture	14% Max		
Defective Of which	2% Max by weight including 1% Max by weight Poor Colour, 4 Max per 400g Bitter Dark seeded Lupins, 34 Max per 400g of Phomopsis Affected seeds	Albus Lupins not of the specified variety. Albus Lupins that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Albus Lupins, whether broken or unbroken, loose seed coat, poor colour, bitter dark seeded lupins, Phomopsis affected and all Albus Lupin seed material falling through the 6.75m round hole screen - see Point 13 of Procedures.	
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	1% Max by weight	Albus Lupins whose seed coats or kernels are distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Albus Lupin seed material.	
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	Nil tolerance		
Field Insects	Two (2) Max	Dead per 400g sample. See Appendix C. Includes Grasshoppers and/or Locusts.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Nil tolerance		

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 8.3.1 LUPINS – ALBUS NO.2 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The Albus Lupins shall be of the current season and be dry and mature.		
Purity	97% Min by weight Whole Albus Lupins, Defective Albus Lupins and coats.		
Moisture	14% Max		
Defective	7% Max by weight including 2% Max by weight Poor Colour, 4 Max per 400g Bitter Dark seeded Lupins, 34 Max per 400g of Phomopsis Affected seeds	Albus Lupins not of the specified variety. Albus Lupins that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Albus Lupins, whether broken or unbroken, loose seed coat, poor colour, bitter dark seeded lupins, Phomopsis affected and all Albus Lupin seed material falling through the 6.75m round hole screen - see Point 13 of Procedures.	
Mould	1 grain Max per 400g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	2% Max by weight	Albus Lupins whose seed coats or kernels are distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	3% Max by weight, includes 2% Max by weight wild radish and 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Albus Lupin seed material. Includes tolerance for wild radish.	
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	Two (2) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 400g sample.	
Field Insects	Thirty (30) Max	Dead or alive per 400g sample. See Appendix C.	
Grasshoppers & Locusts	Four (4) Max	Dead or alive per 400g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil Tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Four (4) cms Max	Pieces laid end to end per 400g sample.	

#### **CSP – 9 AMA MACHINE DRESSED MUNGBEANSTANDARDS**

Quality	Mungbean Grades				
Parameter	Sprouting	Premium	No. 1	Processing	Manufacturing
Variety	Berken, Crystal, Satin II, Regur	Green Diamond, Celera	Berken, Crystal, Satin II, Regur, Green Diamond, Celera	Berken, Crystal, Satin II, Regur, Green Diamond, Celera	Berken, Crystal. Other varieties sale by sample.
Appearance	Equal to or better than the appearance of the standard sample and in conjunction with the photographic charts and parameters. This is equal to or better than the No. 1 grade standard sample.  Regur ONLY: The standard sample has an even appearance but 0.5% brown is acceptable.	Equal to or better than the appearance of the standard sample and in conjunction with the photographic charts and parameters.	Equal to or better than the appearance of the standard sample and in conjunction with the photographic charts and parameters.  The standard sample has a brighter appearance than 'Processing' and colour will be more uniform.	Equal to or better than the appearance of the standard sample and in conjunction with the photographic charts and parameters.	Equal to or better than the appearance of the standard sample.
Purity	99% 0.3% other seeds. Max. soil/stone content 0.1%	99% 0.3% other seeds. Max. soil/stone content 0.1%	99% 0.5% other seeds. Max. soil/stone content 0.1%	99% 0.5% other seeds. Max. soil/stone content 0.1%	99% 0.5% other seeds. Max. soil/stone content 0.1% 2% splits allowable.
Size Range (2mm)	98% 75% must be in 0.8mm range	98% 75% must be in 0.8mm range	98% 75% must be in 0.8mm range	NA	NA
Moisture	12%	12%	12%	12%	12%
Defect type*; refe	r to photographic cha	rts. (Max % by number, as	s conducted on 300 seeds a	as presented)	
Pod Scale	3%	3%	3%	6%	NA
Seed Coat	1%	1%	1%	2%	NA
Stained	1%	1%	1%	2%	NA
Wrinkled	4%	4%	4%	10%	NA
Objectionable Material	Nil Tolerance	Nil Tolerance	Nil Tolerance	Nil Tolerance	Nil Tolerance
Germination Excluding hard seeds	90%	NA	NA	NA	NA
Over-soaks	10%	NA	NA	NA	NA
Charcoal Rot	Absent	NA	NA	NA	NA
Salmonella	Not Detected	NA	NA	NA	NA
E Coli	Not Detected	NA	NA	NA	NA
Coli forms	Not Detected	NA	NA	NA	NA
Sprout Test	Suitable	NA	NA	NA	NA

<sup>\*</sup> To be determined in accordance with the applicable defect type chart.

NA: Not Applicable

#### **Explanation of the AMA Standards**

- 1. All Mungbean covered by these Standards are to be Machine Dressed.
- 2. Appearance; Based on visual assessment against the standard sample at the time of testing. Appearance is determined on uniformity of colour, shades of colour, insect damage, lustre, brightness of colour, condition of skin coat and any other characteristics that effect appearance. In conjunction with appearance test a photographic chart and parameters are used to determine overall grade. The four parameters of seed coat, stained, pod scale and wrinkled are outlined by photographs to determine sound and defective seeds. The test is conducted on 300 seeds and tested as presented.
- Purity; By the International Seed Testing Association rules. Prohibited Seeds (nil tolerance) NSW & QLD lists. Nil Fungal bodies allowed
  - a. AQIS standard for soil/stone states that soil should not be superficially obvious
  - b. Manufacturing Grade will be 97% by ISTA but it must have a total purity of 99% of mungbean material.
- 4. **Size Grading;** 98% must be within a 2mm range based on slotted sieves and within this range 75% must be within 0.8mm. (Seed size will be recorded on the certificate).
- 5. **Moisture;** By International Seed Testing Association rules.
- 6. **Defect Type;** Photo graphic charts are to be used in conjunction with appearance and parameter tests to determine overall grade. The four defect types of pod scale, seed coat, stained, and wrinkled are outlined by the photograph charts to determine sound and defective seeds. The test is conducted on 300 seeds and tested as presented.
- 7. **Objectionable Material;** Refers to objectionable foreign matter which has the ability to degrade the hygiene, become a food safety issue of concern or has a commercially unacceptable odour.
- 8. **Germination;** By the International Seed Testing Association rules. Hard seed to be reported. Hard seeds not to be counted as germinable seed (excluded) for varieties Berken, Delta Emerald and Satin. There is no hard seed limit for Regur, Celera or Green diamond.
- Over-soaks; Percentage of Mungbeans which imbibe after submerging in water at 32 degrees for one hour.
- 10. **Charcoal Rot;** Presence of Charcoal Rot tested at 28 degrees for 4 days.
- 11. Microbiological Standards;
  - a. Ecoli< 10/g
  - b. Coli forms < 103/g
  - c. Salmonella Nil/25g
  - d. If less than tolerance 'Not Detected' is to be reported
- 12. **Sprout Test;** As per AMA approved procedures.
- 13. Lowest grade of any one of the above tests will be the overall grade given.
- 14. Below manufacturing grade is "Sale by Sample".

### CSP – 10.1.1 PEAS – FIELD NO.1 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The peas shall be hard and well filled.		
Purity	97% Min by weight	Whole Field Peas, Defective Field Peas and seed coats.	
Moisture	14% Max		
Defective	3% Max by weight	Field Peas not of the specified variety. Field Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Field Peas, whether broken or unbroken, loose seed coat and all Field Pea seed material falling through the 3.75m slotted screen - see Point 13 of Procedures.	
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	1% Max by weight	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	3% Max by weight, includes 1 Max per 200g clover burr and 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Field Pea seed material. Includes a tolerance for clover burr.	
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.	
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.	
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.	

**NOTE:** Not less than 70% by weight of the entire sample shall be prime peas, that is, field peas of a size that will not pass through a 6.35mm round hole screen.

#### CSP – 10.1.2 PEAS – FIELD NO.1 GRADE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS COMMENTS / VARIATIONS		
Physical Characteristics	The Field Peas shall be hard and well filled.		
Purity	97% Min by weight	Whole Field Peas, Defective Field Peas and seed coats.	
Moisture	14% Max		
Defective Of which	Containers (bulk or bagged): 5% Max by weight Bulk vessel hold shipment: 7% Max by weight	Field Peas not of the specified variety. Field Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Field Peas, whether broken or unbroken, loose seed coat and all Field Pea seed material falling through the 3.75m slotted screen - see Point 13 of Procedures.	
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	1% Max by weight	Field peas whose seed coats or kernels are distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Field Pea seed material.	
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	One (1) Max	Dead. Whole or substantially whole (more than half) including bodies per 200g sample.	
Field Insects	Fifteen (15) Max	Dead per 200g sample. See Appendix C.	
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Nil tolerance		

**NOTE:** Not less than 70% by weight of the entire sample shall be prime peas, that is, field peas of a size that will not pass through a 6.35mm round hole screen.

\* When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### CSP – 10.1.3 PEAS – FIELD NO.1 GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS COMMENTS / VARIATIONS		
Physical Characteristics	The peas shall be hard and well filled.		
Purity	99% Min by weight	Whole Field Peas, Defective Field Peas and seed coats.	
Moisture	14% Max		
Defective Of which	Containers (bulk or bagged): 2% Max by weight Bulk vessel hold shipment: 5% Max by weight	Field Peas not of the specified variety. Field Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Field Peas, whether broken or unbroken, loose seed coat and all Field Pea seed material falling through the 3.75m slotted screen - see Point 13 of Procedures.	
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	1% Max by weight	Seed coat or kernel that is distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Field Pea seed material.	
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	Nil tolerance		
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Nil tolerance		

**NOTE:** Not less than 70% by weight of the whole shall be prime peas, that is, field peas of a size that will not pass through a 6.35mm round hole screen.

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 10.2.1 PEAS – FIELD NO. 2 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The peas shall be hard and well filled.		
Purity	97% Min by weight	Whole Field Peas, Defective Field Peas and seed coats.	
Moisture	14% Max		
Defective	7% Max by weight	Field Peas not of the specified variety. Field Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Field Peas, whether broken or unbroken and loose seed coat.	
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	No limit		
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Field Pea seed material.	
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.	
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.	
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes odour, see Appendix A for more detail.	
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.	

# CSP – 10.2.2 PEAS – FIELD NO. 2 GRADE MINIMUM EXPORT STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The peas shall be hard and well filled.		
Purity	97% Min by weight	Whole Field Peas, Defective Field Peas and seed coats.	
Moisture	14% Max		
Defective Of which	Containers (bulk or bagged): 9% Max by weight Bulk vessel hold shipment: 11% Max by weight	Field Peas not of the specified variety. Field Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Field Peas, whether broken or unbroken and loose seed coat.	
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	No limit		
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Field Pea seed material.	
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	One (1) Max	Dead. Whole or substantially whole (more than half) including bodies per 200g sample.	
Field Insects	Fifteen (15) Max	Dead per 200g sample. See Appendix C.	
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Nil tolerance		

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

## CSP – 10.2.3 PEAS – FIELD NO.2 GRADE MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The peas shall be hard and well filled.	
Purity	99% Min by weight	Whole Field Peas, Defective Field Peas and seed coats.
Moisture	14% Max	
Defective Of which	Containers (bulk or bagged): 2% Max by weight Bulk vessel hold shipment: 5% Max by weight	Field Peas not of the specified variety. Field Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Field Peas, whether broken or unbroken and loose seed coat.
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	No limit	
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Field Pea seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers and/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 10.3.1 PEAS – FIELD NO.3 GRADE MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The peas shall be hard and well filled.	
Purity	97% Min by weight	Whole Field Peas, Defective Field Peas and seed coats.
Moisture	14% Max	
Defective Of which	25% Max by weight	Field Peas not of the specified variety. Field Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Field Peas, whether broken or unbroken and loose seed coat.
Insect Damaged	10% Max by weight	
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Field Pea seed material.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

# CSP – 10.4 PEAS – YELLOW SPLIT MINIMUM EXPORT STANDARD MACHINE DRESSED

STANDARD MACHINE DRESSED		
PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	Yellow Split Peas having a clean and bright appearance.	
Purity	99.5% Min by weight	Whole peas, split peas, broken & kibbled, Defective Yellow Split Peas, Caps but excludes detached seed coats.
Moisture	14% Max	
Defective Of which	3% Max by weight	Caps, Whole Field Peas with seed coat intact, discoloured yellow split peas and Whole Field peas with a missing seed coat.
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Caps, Whole Field Peas with seed coat intact and discoloured yellow split peas	3% Max by weight	Caps refer to seed coats adhering to split or broken seed.
Whole field peas with a missing seed coat	2% Max by weight	Whole Field peas with a missing seed coat
Detached seed coats	0.1% Max by weight	Seed coats that are not attached to the kernels.
Broken & kibbled	4% Max by weight, 3.97mm round hole	Split pea seed material falling through the screen. Use "Forty Shakes" Sieving Method - see Point 13 of Procedures.
Poor Colour	1% Max by weight dark green and 3% Max by weight tinged green	Yellow Split Peas whose kernels are distinctly off colour from the characteristic colour of the predominating class. Includes dark green and tinged green.
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Yellow Split Pea seed material.
Unmillable Material	0.1% Max by weight, includes 1 Max per 1kg stone	Soil, stones and non-vegetable matter. Not more than one (1) superficially obvious stone per kg. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	Nil tolerance	See Appendix C. Includes Grasshoppers &/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 11.1 PIGEON PEAS MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETERS	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	The Pigeon Peas shall be sound, dry, fresh and light to medium brown in colour.		
Purity	97% Min by weight	Whole Pigeon Peas, Defective Pigeon Peas and seed coats.	
Moisture	14% Max		
Defective	5% Max by weight	Pigeon Peas not of the specified variety. Pigeon Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Pigeon Peas, whether broken or unbroken, and loose seed coat.	
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	1% Max by weight	Pigeon Peas whose seed coat or kernels are distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	3% Max by weight, includes 0.5% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Pigeon Pea seed material.	
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.	
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.	
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.	

### CSP – 11.2 PIGEON PEAS MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	The Pigeon Peas shall be sound, dry, fresh and light to medium brown in colour.	
Purity	99% Min by weight	Whole Pigeon Peas, defective Pigeon Peas and seed coats.
Moisture	14% Max	
Defective Of which	2% Max by weight	Pigeon Peas not of the specified variety. Pigeon Peas that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Pigeon Peas, whether broken or unbroken, and loose seed coat.
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	1% Max by weight	Pigeon Peas whose seed coat or kernels are distinctly off colour from the characteristic colour of the predominating class.
Foreign Material	1% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Pigeon Pea seed material.
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	Nil tolerance	
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers &/or Locusts.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Nil tolerance	

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

# CSP – 12.1 VETCH MINIMUM RECEIVAL STANDARD FARMER DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS
Physical Characteristics	Vetch should be whole, sound, dry, fresh and colour typical of the variety of the season.	
Purity	97% Min by weight	Includes whole Vetch, Defective Vetch, skins and de-coated Vetch.
Moisture	14% Max	
Defective	5% Max by weight	Vetch not of the specified variety. Vetch kernels that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Vetch, whether broken or unbroken and loose seed coat. Vetch where whole or part of the seed coat only is damaged, is included as sound Vetch.
Mould	1 grain Max per 200g	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.
Poor Colour	1% Max by weight	Vetch whose seed coat or kernels are distinctly off colour from the characteristic colour of the predominating class.
Foreign Material	3% Max by weight, of which Max 2% by weight cereal grain and 0.5% Max by weight Unmillable Material	Includes unmillable material and all vegetable matter other than Vetch seed material. Includes cereal grain.
Unmillable Material	0.5% Max by weight (of which 0.3% Max by weight of soil)	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.
Snails	One (1) Max	Dead or alive. Whole or substantially whole (more than half) including bodies per 200g sample.
Field Insects	Fifteen (15) Max	Dead or alive per 200g sample. See Appendix C.
Grasshoppers & Locusts	Two (2) Max	Dead or alive per 200g sample. See Appendix C.
Foreign Seeds		See Appendix B.
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.
Ryegrass Ergot	Two (2) cms Max	Pieces laid end to end per 200g sample.

### CSP – 12.2 VETCH MINIMUM EXPORT STANDARD MACHINE DRESSED

PARAMETER	REQUIREMENTS	COMMENTS / VARIATIONS	
Physical Characteristics	Vetch should be whole, sound, dry, fresh and colour typical of the variety of the season.		
Purity	99.5% Min by weight	Whole Vetch, Defective Vetch, skins and de-coated Vetch.	
Moisture	14% Max		
Defective	2% Max by weight	Vetch not of the specified variety. Vetch kernels that are broken, chipped, diseased, frost damaged, insect damaged, sappy, shrivelled, split, sprouted, weather damaged, wrinkled. Includes pods that contain Vetch, whether broken or unbroken and loose seed coat. Vetch where whole or part of the seed coat only is damaged, is	
Of which		included as sound Vetch.	
Mould	1% Max by weight*	Mould (Field and / or Storage), Caked, Bin Burnt & Heat Damaged.	
Poor Colour	1% Max by weight	Vetch whose seed coat or kernels are distinctly off colour from the characteristic colour of the predominating class.	
Foreign Material	0.5% Max by weight, includes 0.1% Max by weight Unmillable Material	Unmillable material and all vegetable matter other than Vetch seed material.	
Unmillable Material	0.1% Max by weight	Soil, stones and non-vegetable matter. Please read important note re soil contamination – see Point 14 of Procedures.	
Snails	Nil tolerance		
Field Insects	One (1) Max	Dead per 200g sample. See Appendix C. Includes Grasshoppers &/or Locusts.	
Foreign Seeds		See Appendix B.	
Objectionable Material	Nil tolerance	Includes Objectionable Odour, see Appendix A for more detail.	
Ryegrass Ergot	Nil tolerance		

<sup>\*</sup> When not in conflict with Storage and Handling Agreement or Marketing Contract.

Please note that this Export Standard is in addition to the specific quarantine requirements of particular countries, as governed by Plant Export Operations. See Introduction.

#### APPENDIX A - OBJECTIONABLE MATERIAL

#### **NIL Tolerance Applies to all Standards**

Objectionable Material refers to objectionable foreign matter that may or may not be otherwise stated in these Standards which has the ability to degrade the hygiene of the pulse, become a food safety issue of concern or has a commercially unacceptable odour (refer Objectionable Odour). This includes but is not limited to the following:

- Animal excreta
- Rodents, either alive or dead
- Crushed insect bodies or parts that adhere to the grain causing clumping of the grain that may or may not cause an odour
- Live stored product insect pests. Commonly found stored product insects include the following:

COMMON NAME	SCIENTIFIC NAME
Angoumois Grain Moth	Sitotroga cerealella
Confused Flour Beetle	Tribolium confusum
Cowpea Bruchid	Callosobruchus maculatus
Flat Grain Beetle	Cryptolestes spp.
Granary Weevil	Sitophilus granaries
Indian Meal Moth	Plodia interpunctella
Lesser Grain Borer	Rhyzopertha dominica
Maize Weevil	Sitophilus zeamais
Psocids/Book Lice	Psocoptera spp.
Rice Weevil	Sitophilus oryzae
Rust-red Flour Beetle	Tribolium castaneum
Saw Toothed Grain Beetle	Oryzaephilus surinamensis
Tropical Warehouse Moth	Ephestia cautella
Warehouse Beetle	Trogoderma variable

- Any chemical not registered for use on pulses, in excess of legal tolerances or chemicals in excess of the MRL
- Pickling compounds / seed dressings or any fungicide added to the pulse as a seed dressing
- Any tainting agents and / or other contaminants imparting an odour not normally associated with that particular pulse
- A commercially objectionable odour and/or an odour not normally associated with the pulse in question. Odour may be caused by various means which may or may not be discernible in the sample being assessed

- Toxic and / or noxious weed seeds which are prohibited by State laws against inclusion in stockfeed
- Ergot of any commodity except ryegrass ergot (for which a tolerance may apply)
- Any other commercially unacceptable contaminant such as glass, metal, fertiliser, concrete

As many of these parameters such as chemicals are not able to be assessed on site prior to delivery of the pulse, it is the responsibility of the grower or deliverer of the pulse to ensure compliance with any regulations or Standards. It is recommended that a declaration be obtained by the Storage Provider regarding the chemical status of the pulse tendered for delivery.

#### **APPENDIX B - FOREIGN SEEDS**

#### WEED SEED DISCLAIMER

"The following weed seed tolerances apply to pulses traded under the standards as specified. Note however, that these weed seed tolerances may differ from those applied in each State and Territory under the respective legislation. All persons trading pulses are advised to refer to the relevant legislation for appropriate Standards to be complied with. Pulse Australia takes no responsibility for pulses traded which do not take into account the relevant legislative weed seed standards."

Tolerances for Seed Contaminants apply to whole seeds or their equivalent in pieces per 200 gram or 400 gram sample (above or below the screen) of the following species. Any seed pods detected must be opened and the seeds counted for inclusion in the tolerances as specified, except where pods have a specified tolerance.

The tolerances listed below are maximums and refer to the total of all seeds named in each type, except for Type 1 in which the maximum applies on an individual seed basis. There shall be nil tolerance on Toxic and / or Noxious weed seeds which are prohibited by State laws against inclusion in stockfeed.

Please note that Small Foreign Seeds are seeds that are not the pulse being sampled and do not have a tolerance specified in Type 1 to 8 that collect in the catch pan during the Forty Shakes Sieving Method. Any weed seed not specifically mentioned in Appendix B that collect in the catch pan during this process are to be treated as a Type 7(b).

TYPE 1 – FOUR SEEDS (Per 200g) -	- INDIVIDUAL SEED BASIS
TYPE 1 – EIGHT SEEDS (Per 400g)	– INDIVIDUAL SEED BASIS
Colocynth	Citrullus colocynthis
Doublegees, Spiny Emex or Three Cornered Jack	Emex australis
Jute	Corchorus olitorius
Long Head Poppy	Papaver dubium
Mexican Poppy	Argemone mexicana
New Zealand Spinach	Tetragonia tetragonioides
Parthenium Weed	Parthenium hysterophorus
Poppy (Field)	Papaver rhoeas
Poppy (Horned)	Glaucium flavum
Wild Poppy	Papaver hybridum

TYPE 2	- NIL SEEDS (Per 200g)	
TYPE 2 – NIL SEEDS (Per 400g)		
Castor Oil Plant	Ricinus communis	
Coriander	Coriandrum sativum	
Crow Garlic or Wild Garlic	Allium vineale	
Darling Pea	Swainsona spp	
Opium Poppy	Papaver somniferum	
Ragweed	Ambrosia spp	
Rattlepods	Crotalaria spp	
Starburr	Acanthospermum hispidum	
St. Johns Wort	Hypericum perforatum	

TYPE 3 (a) – ONE SEED IN	TOTAL (Per 200g)
TYPE 3 (a) – TWO SEEDS IN TOTAL (Per 400g)	
Bathurst Burr	Xanthium spinosum
Bulls Head or Caltrop or Cats Head	Tribulus terrestris
Cape Tulip	Homeria spp
Cottonseed	Gossypium spp
Dodder	Cuscuta spp
Noogoora Burr	Xanthium pungens
Thornapple	Datura spp

	TYPE 3 (b) – TWO SEEDS IN TOTAL (Per 200g)	
TYPE 3 (b) – FOUR SEEDS IN TOTAL (Per 400g)		
Vetch (Tare)* Vicia sativa		
Vetch (Commercial)*	Vicia spp	

<sup>\*</sup> Nil tolerance applies to vetch of any type in Red Lentils (whole or split) to Saudi Arabia

TYPE 3 (c) - FOUR SEEDS IN TOTAL (Per 200g)		
TYPE 3 (c) – EIGHT SEEDS IN TOTAL (Per 400g)		
Heliotrope (Blue)	Heliotropium amplexicaule	
Heliotrope (Common)	Heliotropium europaeum	

#### TYPE 4 (a) – TEN SEEDS IN TOTAL (Per 200g)

#### TYPE 4 (a) - TWENTY SEEDS IN TOTAL (Per 400g)

Bindweed (Field)	Convolvulus arvensis
Cutleaf Mignonette	Reseda lutea
Darnel (Drake Seed)	Lolium temulentum
Hexham Scent or Melilot (King Island)	Melilotus indicus
Hoary Cress	Cardaria draba
Mintweed	Salvia reflexa
Nightshades	Solanum spp
Paddy Melon	Cucumis myriocarpus
Skeleton Weed	Chondrilla juncea
Variegated Thistle	Silybum marianum

Hexham Scent (*Melilotus indicus*) may only be received if there is no discernible tainting odour imparted to the grain.

#### TYPE 5 - TWENTY SEEDS IN TOTAL (Per 200g)

#### TYPE 5 – FORTY SEEDS IN TOTAL (Per 400g)

Knapweed (Creeping) or Knapweed (Russian)	Acroptilon repens
Sesbania Pea	Sesbania cannabina
Patterson's Curse or Salvation Jane	Echium plantagineum

#### TYPE 6 – FIVE SEEDS/PODS IN TOTAL (Per 200g)

#### TYPE 6 – TEN SEEDS/PODS IN TOTAL (Per 400g)

Colombus Grass	Sorghum almum
Johnson Grass	Sorghum halepense
Saffron Thistle	Carthamus lanatus
Clover (Pods)	Trifolium spp
Lucerne (Pods)	Medicago spp
Marshmallow (Pods)	Malva parviflora
Medic (Pods)	Medicago spp
Muskweed (Pods)	Myagrum perfoliatum
Wild Radish (Pods)	Raphanus raphanistrum
Trefoil (Pods)	Medicago spp

Pods refers to whole pods or part thereof

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TYPE 7 (a) – TEN SEEDS IN TOTAL (Per 200g)		
TYPE 7 (a) – TWENTY SEEDS IN TOTAL (Per 400g)		
Chickpeas	Cicer arietinum	
Corn	Zea mays	
Cowpea	Vigna unguiculata	
Faba Beans	Vicia faba	
Lentils	Len culinaris	
Lupin	Lupinus spp	
Maize	Zea mays	
Peas (Field)	Pisum sativum	
Soybean	Glycine Max	
Excludes the pulse being sampled		

TYPE 7 (b) – TEN SEEDS IN TOTAL (Per 200g)		
TYPE 7 (b) – TWENTY SEEDS IN TOTAL (Per 400g)		
Barley (2 row)	Hordeum distichon	
Barley (6 row)	Hordeum vulgare	
Bindweed (Australian)	Convolvulus erubescens	
Bindweed (Black) Polygonum convolvulus		
Durum Triticum durum		
Oats (Black or Wild)	Avena fatua	
Oats (Sand)	Avena strigosa	
Oats (Common)	Avena sativa	
Rice	Oryza sativa	
Rye (Cereal) Secale cereale		
Sorghum (Grain)	Sorghum bicolor	
Triticale	Triticosecale spp	
Turnip Weed	Rapistrum rugosum	
Wheat	Triticum aestivum	
Any other seed contaminant not specified (other than Small Foreign Seeds)		

Note: A separate tolerance exists for Cereal seeds in Red Lentils only. Refer definition of Cereal seeds.

TYPE 7 (c) – ONE SEED IN TOTAL (Per 200g)	
TYPE 7 (c) – TWO SEEDS IN TOTAL (Per 400g)	
Safflower	Carthamus tinctorius
Sunflower	Helianthus annuus

	TYPE 8 – ONE HUNDRED SEEDS	(Per 200g)
	TYPE 8 – TWO HUNDRED SEEDS	(Per 400g)
Bellvine	Ipon	noea plebera

SMALL FOREIGN SEEDS Maximum 0.6% (by weight)			
Common Name	Botanical Name	Common Name	Botanical Name
Amsinckia	Amsinckia spp	Milk Thistle (Seeds)	Sonchus oleraceus
Australian Phalaris	Phalaris aquatica	Mustard	Sisymbrium spp
Bladder Soapwort	Vaccaria hispanica	Mustard (Indian Hedge)	Sisymbrium orientale
Burrweed (Yellow)	Amsinckia spp	Paradoxa Grass (Seed)	Phalaris paradoxa
Canary Grass (Wild)	Phalaris canariensis	Peppercress	Lepidium spp
Canola	Brassica rapa	Phalaris (Australian)	Phalaris aquatica
Celery (Slender)	Apium leptophyllum	Rapeseed	Brassica rapa
Charlock	Sinapis arvensis	Ryegrass	Lolium spp
Clover (Ball, Ball Clover)	Trifolium glomeratum	Sage (Wild)	Salvia verbenaca
Cockspur (Maltese)	Centaurea melitensis	Salt Bush	Atriplex muelleri
Dock	Rumex spp	Slender Celery	Apium leptophyllum
Fat Hen	Chenopodium album	Sorrel	Rumex acetosella
Fescue	Festuca spp	Sowthistle	Sonchus spp
Hares Ear	Conringia orientalis	Thistle Milk (seeds)	Sonchus oleraceus
Hedge Mustard	Sisymbrium officinale	Turnip (Mediterranean)	Brassica tournefortii
Horehound	Marrumbium vulgare	Turnip (Wild)	Brassica tournefortii
Knotweed	Polygonum aviculare	Urochloa Grass	Urochloa panicoides
Lesser Canary Grass	Phalaris minor	Verbena	Verbena spp
Lettuce	Lactuca spp	Wild Canary Grass	Phalaris canariensis
Lucerne (Seeds)	Medicago sativa	Wild Radish (Seeds)	Raphanus raphanistrum
Maltese Cockspur	Centaurea melitensis	Wild Sage	Salvia verbenaca
Marshmallow (Seeds)	Malva palviflora	Wild Turnip	Brassica tournefortii
Medics (Seeds)	Medicago spp	Wireweed	Polygonum aviculare
Muskweed (Seeds)	Myagrum perfoliatum	Yellow Burrweed	Amsinckia spp

There may be other weeds that are categorised as Small Foreign Seeds that are not listed above

#### **APPENDIX C - FIELD INSECTS**

#### Field Insects - except Grasshoppers and/or Locusts

Field insects are insect contaminants of pulses that do not cause damage to stored pulses. Tolerances may include dead or live insects depending on the applicable grain type and Standard.

For all Field Insects other than grasshoppers and/or locusts, the definition refers to whole bodies. Body portions or pieces of Field Insects are classified as Unmillable Material.

**Note:** There may be variances with the tolerances applied at export by DA Plant Export Operations.

COMMON NAME	SCIENTIFIC NAME
Grasshoppers &/or Locusts	Various
Hairy Fungus Beetle	Typhaea stercorea
Ladybirds	Various
Minute Mould Beetles	Corticaria species
Pea Weevil (dead only)	Bruchus pisorum
Sitona Weevil	Sitona species
Desiantha Weevil	Desiantha diversipes
Wood Bugs	Various
All Other Field Insects	

#### **Grasshoppers and Locusts**

For grasshoppers and/or locusts, six legs, three body parts or two wings or part thereof, constitutes one entire insect respectively. More than one of the same body part constitutes greater than one insect.

#### Pea Weevil

For the purposes of these Standards, a Pea Weevil is classified as a Field Insect. Tolerances apply to all life stages of the insect.

Live Pea Weevil refers to live insects of the species *Bruchus pisorum*. Dead Pea Weevil refers to dead insects of the species *Bruchus pisorum*.

**Note:** An exception applies in that a NIL tolerance applies to live Pea Weevil as they are classified as Objectionable Material.

COMMON NAME	SCIENTIFIC NAME
Pea Weevil	Bruchus pisorum